FINANCIAL CRISIS INQUIRY COMMISSION

Official Transcript

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in the Financial Crisis."

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Session 1: Overview of Derivatives

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Session 2: American International Group, Inc., and
Derivatives

JOSEPH J. CASSANO, Former Chief Executive Officer,
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ROBERT E. LEWIS, Senior Vice President and Chief
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MARTIN J. SULLIVAN, Former Chief Executive Officer
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Session 3: Goldman Sachs Group, Inc. and Derivatives

CRAIG BRODERICK, Managing Director, Head of Credit, Market and Operational Risk, Goldman Sachs Group, Inc.

GARY D. COHN, President and Chief Operating Officer, Goldman Sachs Group, Inc.

P R O C E E D I N G S

(9:06 a.m.)

CHAIRMAN ANGELIDES: Good morning. Welcome to the hearing of the Financial Crisis Inquiry Commission on "The Role of Derivatives in the Financial Crisis." I want to welcome everyone here today. I am going to start off with a brief opening statement, and I will be followed by Vice Chairman Thomas.

Good morning. As always, as we start the hearing this morning I would like to thank Vice Chairman Thomas for his partnership and his cooperative work with me and my fellow Commissioners. Today I want to particularly single out and thank Commissioners Born, Hennessey, Thompson, and Wallison for taking the lead on this hearing.

Today we will be examining the role of derivatives in the financial crisis. I must say that, despite 30 years in housing, finance and investment in both the public and private sectors, I had little appreciation of the tremendous leverage, risk, and speculation that was growing in the dark world of derivatives.

Neither, apparently, did the captains of finance nor leaders in Washington.

The sheer size of the derivatives market is as stunning as its growth. The notional value of over-the-counter derivatives grew from $88 trillion in 1999 to $684 trillion in 2008. That is more than 10 times the size of the gross domestic product of all nations.

Credit derivatives grew from less than a trillion dollars at the beginning of this decade to a peak of $58 trillion by 2007. These derivatives multiplied throughout our financial markets unseen and unregulated.

As I have explored this world, I feel a little like I've walked into a bank, opened a door, and seen a casino as big as New York, New York. Unlike Claude Rains in Casablanca, however, we should be shocked, shocked that gambling is going on.

As the financial crisis came to a head in the fall of 2008, no one knew what kind of derivative-related liabilities the other guys had. Our free markets work when participants have good information. When clarity mattered most, Wall Street and Washington were flying blind.

To be fair, derivatives have a legitimate purpose to help hedge against risk, but much of what has been traded in recent years, especially synthetic securities, is just bet, upon bet, upon bet. They don't build a factory. They don't start a business. They don't add a job. These securities may have been synthetic, but they destroyed real people's real life-savings.

One might think that financial reform legislation will take care of all of this, but it would be naive to believe that a signature on a law, in and of itself, marks the completion of financial reform. In fact, it is only the beginning.

It took a good decade for New Deal reforms to be put into action. The real nitty gritty of financial reform will be worked out in regulations. No wonder lobbyists are already lining up to help write the rules. Real reform depends on the will to make it happen, of regulators, of the public officials who appoint them, and of the financial leaders who must live by them.

This Commission has already seen plenty of instances of sensible regulations that went unenforced. Sadly, we know that, while the soul may be willing, the flesh is often weak. All of us who want to avoid another financial crisis need to understand how we got into this one. That's the purpose of this Commission.

In the case of derivatives, my fellow Commissioners and I have seen something we've seen many times in our investigation: Risk, leverage, and early-warning signs being ignored.

In this instance, there were the reddest of red flags. In 1994, Orange County, California, goes bankrupt in a derivatives deal gone bad. In 1998, Long-Term Capital Management causes a near financial crisis. And in 2001, Enron, knee deep in derivatives, explodes causing what is at the time the largest bankruptcy in U.S. history.

It's not as if no one warned us. Back in the 1990s, Commissioner Born, then Chair of the Commodities Futures Trading Commission, saw the looming crisis and argued strenuously for transparency and common-sense regulation of derivatives. Her prescience and tenacity earned her the John F. Kennedy Profile in Courage Award. If she had prevailed, I believe we would have had a safer financial system.

And so today we will look at derivatives and the financial crisis through the prism of two companies: Goldman Sachs and AIG. The two were linked through derivatives, as indeed was all of Wall Street.

In June 2008, Goldman's derivatives book had a notional value of $53 trillion, with over 1.2 million contracts. We will ask Gary Cohn, Goldman's President and Chief Operating Officer, how his firm's derivatives' dealings may or may not have contributed to the financial crisis, and the economic crisis that followed.

We will ask how it came to be that AIG, a once-respected company that Americans looked to for traditional insurance needs, found itself on the losing side of many derivatives' transactions with Goldman and other companies and had to be bailed out with a commitment of $182 billion in taxpayers' assistance.

We will have questions for AIG's former CEO Martin Sullivan, as well as the former head of its Financial Products Group, Joseph Cassano, who is testifying for the first time since the crisis. And we will explore the Goldman-AIG connection, a multi-billion dollar strategic relationship that ultimately turned contentious.

We will examine how the two financial giants struggled over derivatives in the fateful weeks and months leading up to the financial crisis, and whether their fight fueled this crisis. Hopefully, over the next two days we can shine a light on this dark world of derivatives.

And with that, I now turn the microphone over to my colleague, Vice Chairman Bill Thomas.

VICE CHAIRMAN THOMAS: Thank you, Mr. Chairman.

I do want to note for the record the absence of two Commissioners. And frankly I'm surprised that we've been able to maintain the full complement of the Commission for as long as we have, given the resumes of the individuals on the Commission. So I want to note the absence of Commissioner Murren and Commissioner Thompson, who I know would want to be here. And I wanted to make public note of this because we've been so pleased at the sacrifices the Commissioners have made so that we could be in attendance. But frankly, the real world sometimes cannot be overcome and you've got to do what you've got to do. So I want to recognize them for their ongoing contribution, and they will be with us at another time.

I also want to thank all of the witnesses once again, and I want to underscore, Mr. Chairman, as you mentioned we have two particular firms here. And as we have done in the past, it isn't to focus on them and hold them responsible, but rather to use them in an attempt to look at some case studies. And you would turn to the biggest players so that you have a better understanding of the way in which relationships occurred, and I think by any standard AIG and Goldman would be at least two of the principal nominees in that discussion.

You mentioned the movie Casablanca. The movie that I think of when we talk about derivatives, having begun my Congressional career on the Agriculture Committee, is the movie Trading Places with Dan Aykroyd and Eddie Murphy, and their attempt to corner the orange juice futures market. Because most people will think about derivatives in terms of the classic pork belly, or oil, and the rest.

And so the frankly interesting history of how derivatives came into play, at least in most people's opinion, but especially the spinoffs of derivatives, a significant role in what we have been statutorily charged with investigating, the financial and the resultant economic crisis, is one that most people do not understand. And the more I listen to folk and read, apparently some of the people who were the major players did not understand what it was that they were dealing with, and especially the more complicated financial aspects of being on one side or the other of the derivatives.

So I mean even as late as today, in The New York Times we continue to find out things that are behind-the-scenes' exposes of what went on. And as we go forward, we will probably get more of that. But today's hearing, especially the first panel, I think will give us a quality grounding in just exactly what we are talking about.

And I do hope--and I am going to try to keep my eye on our primary statutory mission—and that is not get lost in some of the intriguing stories, but to focus on what we can do to determine the causes of the financial crisis and the resulting economic crisis, and the role that the various institutions and activities of those institutions played in the resultant financial crisis.

So I look forward to today's testimony. And I want to thank, once again, all the witnesses and look forward to the hearing.

Thank you, Mr. Chairman.

CHAIRMAN ANGELIDES: Thank you, Mr. Vice Chairman. Now we will begin the first session, and we have four panels with us, four witnesses with us. This first session is "An Overview of Derivatives" designed to give both the Commission and the public a large-scale view of this issue.

What I would like to do is ask if the witnesses would please all rise and raise your right hand to do what we customarily do, which is swear in all our witnesses in our public hearings. So again, if you would raise your right hand. I will read the oath and you will affirm.

Do you solemnly swear or affirm under penalty of perjury that the testimony you are about to provide the Commission will be the truth, the whole truth, and nothing but the truth, to the best of your knowledge?

MR. GREENBERGER: I do.

MT. KOHLHAGEN: I do.

MR. KYLE: I do.

MR. MASTERS: I do.

(Witnesses sworn.)

CHAIRMAN ANGELIDES: Thank you, very much.

Gentlemen, we have received your written testimony and we appreciate that. We are going to ask each of you to provide an oral statement of no more than five minutes so that we can reserve the balance of the time, in excess really of two hours, for questions and answers.

So I would ask you also to not just repeat your written testimony, because we are good readers on this

Commission. You have in front of you a device that at one minute the yellow light will go on. So that is your signal that you have one minute to wrap up.

We will start and just go down in order with Mr. Greenberger. We will end with Mr. Masters. And, Mr. Greenberger, if you will commence your testimony, terrific.

WITNESS GREENBERGER: Thank you, Mr. Chairman, and thank you Members of the Commission:

I think Commissioner Thomas hit the nail on the head. We often think of these products as being pork bellies, or red wheat, and even in the regulated futures market by the mid- to late-'90s it had expanded across a wide array of instruments, financial instruments, complicated financial instruments, that are part of the derivatives package.

There will be much discussion when you deal with this over the term "swaps," which is essentially what it's called, an over-the-counter derivative, as a result of the Commodities Futures Modernization Act, an unregulated product.

Just quickly, the most common swap is a plain-vanilla swap, interest rate swap. Someone has a loan. They've committed to pay an adjustable rate. They're worried that the adjustable rate will go above the fixed rate. So they enter into a swap agreement with a swap dealer--and there are five major swap dealers, major banks, where the swap dealer will pay it the adjusted rate, or take care of the adjusted rate, and it will pay the swap dealer the fixed rate.

So it has swapped its adjustable exposure for fixed exposure.

Now of course the swaps dealers don't do that pro bono. They pay a very hefty fee to put themselves at risk, and they themselves then lay off that risk with other swaps' parties.

The most classic thing I think we will be discussing is the credit default swap, which many believe--including myself--was a major culprit in causing the financial crisis.

That swap is the swap of a premium for the guarantee in this case of an investment. Theoretically somebody owns a collateralized debt obligation, which is essentially an investment, that subprime mortgages to non-creditworthy individuals will be paid off and won't default.

They want an insurance against the very high risk that people who can't afford a mortgage will not pay the mortgage. The calculus--I know, Mr. Chairman, you used the word $58 trillion, because this is a private, bilateral opaque market I think estimates are just educated guesses.

The figures I put in my testimony is the credit default swap market was at a minimum $35 trillion, a maximum $65 trillion notional value.

And I've made clear in my testimony the difference between notional value and amount at risk, and I'm happy to discuss that.

We had an opportunity at one point where we reached a fork in the road. Will these swaps' products that look like futures--many people argued they were futures--would they be regulated as regulated futures? Or would they be completely unregulated?

By virtue of the Commodity Exchange Act, if they were futures they would be cleared--that is to say, some strong financial institution would make sure that the commitments were backed by adequate capital through the collection of margin, and you wouldn't have situations like September 15th, 16th, where AIG wakes up finding out all of a sudden it owes $80 billion on its credit default swap book. That's the clearing aspect.

And if it were regulated, it would be exchange traded. That is to say, transparent. The market would know. The regulators would know what is out there, and there would be a market-driven price mechanism associated to these products.

We had a fork. We could have either done that, or we could do what Congress did in 2000, which was to decide for their reasons that this market would be completely unregulated.

That is to say, no clearing. No exchange trading. Preemption of state laws. Especially state gaming laws were preempted because of an understanding that this was going to be a highly speculative market. And the states, if they applied gambling laws, would interfere with the market.

Not only was federal regulation what then-Chairman Christopher Cox said, a regulatory black hole overseeing this market, but the statute itself had a provision in it that, to the extent the swaps violated the statutes, they could not be rescinded or unenforceable.

In the end, what you have is a $600 trillion notional value market that is completely unregulated and dark. Therefore, regulators don't know what's happening out there. Market observers don't know what's happening out there. And that led to a belief that we needed to rescue the entire market in the fall of 2008.

CHAIRMAN ANGELIDES: Thank you very much, Mr. Greenberg--Greenberger, sorry, I just cut off that "er." Mr. Kohlhagen. Dr. Kohlhagen. For all of you who have Doctorates, I apologize.

WITNESS KOHLHAGEN: "Mister" is fine.

Good morning and thank you for inviting me here and for letting me share my opinions with you. I have five basic points I want to make.

The first is that interest rate derivatives, currency derivatives, equity derivatives, and commodity derivatives in my opinion did not cause, amplify, or marginally spread--or materially spread the financial crisis. In fact, they offered hedging opportunities to the international community, corporations, and investors and individuals, and were an enhanced global resource allocation efficiency and had absolutely no material effect whatsoever on the financial crisis.

Over-the-counter on credit derivatives, in general, and credit default swaps in particular, had absolutely no role whatsoever in causing the financial crisis.

My second point is that credit derivatives in general, and credit default swaps in particular, definitely enabled the continuation of the bubble starting in March of 2005 when AIGFP sold a staggeringly large amount of credit default swaps over about a 15-month period into the marketplace.

The bubble started before that, and the crisis would have happened if they had not done that. The crisis would have come sooner if AIGFP had not been involved in that market. And it would have been--the crisis would have been somewhat less severe, but it still would have happened.

The causes--my third point is, the cause of the financial crisis was quite simply the commitment by the United States Government to bring home ownership to the next group of people who previously had not been able to own their own homes.

That did not necessarily have to lead to a crisis. There would be some cost to U.S. taxpayers, the subsidies and guarantees, and was unknown. The way that that government program was implemented and the conduct of the government-created, government-sponsored, and government-managed program led to much higher costs than people thought.

In order for--my fourth point would be, the amplification and spreading required enablers. And those enablers, later when it turned into a bubble, what I call "bubble enablers," included essentially everybody: lending officers, lending institutions, the government's open-ended and poorly supervised subsidies and guarantees of Fannie Mae and Freddie Mac, those institutions that sold products that were worth less than they were selling them to be, the rating agencies, the Federal Regulators Liberalization and Forbearance, and the Federal Reserve's easy monetary policy in the face of it, and the BIS Capital Adequacy Rules that gave an incentive to institutions and the whole AAA securities invariant to their quality.

The fifth point that I want to make, and that I would like to emphasize, that I have not seen anywhere in the press or anywhere, is that the largest cause of the over-valuation of the CDOs was miscommunication within the firms on Wall Street that were creating them.

It takes two kinds of professional employees to create the CDOs that led to the crisis. The first are mathematicians and technical experts that actually create the models, that develop the models and develop the pricing. Those people professionally have no concept whatsoever of what's going on in the credit markets. They have no idea what's happening to underwriting standards in the credit world.

The second type of employee who does pay attention to what's going on in the credit markets in general had no knowledge at all of how these instruments are priced. And in terms of corporate management, those two silos did not communicate with each other. And so that the credit guys were not telling the derivatives guys, if you will, what was going on in the market. And so the pricing, I believe unknowingly, was off.

The financial institutions that figured it out basically began hedging and began not underwriting these securities. But there were a set of organizations in the middle of this that were fully equipped, that had both skills and should have caught this, and those were the rating agencies. They also had access to nonpublic information and an obligation for discovery.

When hedge funds and institutional investors discovered the problem, they came to AIG. And as all of you know, it takes two to create a market: buyers and sellers. And AIG basically sold into this market because they were a credible market participant.

I would like to add one thing, if I may please. I believe that the writing of $80 billion of naked, unhedged CDSs by AIGFP was an act of incredible corporate irresponsibility on three grounds: that AIG executives did not appropriately manage their subsidiary; that AIGFP executives went beyond their culture and their corporate culture and did this activity; and thirdly, those institutions who bought from them who never asked the question, or at least didn't ask the question in time: Wait a minute. If they're selling me this quantity, what are they selling to other people?

CHAIRMAN ANGELIDES: Thank you, very much. Professor Kyle.

WITNESS KYLE: Thank you for inviting me here today.

There are many, many culprits that have been identified in causing the financial crisis.   OTC derivatives trading is one culprit that has been proposed. Its relatives: short-selling and the securitization and tranching of risks are others.

The list goes on. It includes: Poor risk management at banks; the originate and distribute model of banking; the credit rating agencies; the executive compensation practices of large financial institutions which allowed large bonuses to be paid; government mandates for home ownership, and in particular mandates that Fannie Mae and Freddie Mac purchase mortgages--backedby mortgages to low-income home owners; and finally, unscrupulous banking practices and greed.

I want to propose that there are different causes of the financial crisis. That list that I just went through includes many things that are interesting to talk about in the context of the crisis, but two other factors were the most important ones and the ones that we should keep in mind.

The first of these is what I call "risk shifting." The banks were playing with their own money as long as they were making profits. Banks were playing with taxpayer money when they were making losses.

So the what I call "risk shifting" is this idea that a levered financial institution gets to keep the upside but gets to dump the losses on taxpayers if it loses money. Risk shifting was a big factor in the, lying behind the behavior of the large banks.

The second factor I want to identify is what I would call "irrational exuberance." It's a belief that housing is a good investment and that everybody should own a home, not only because they need a place to live but because it's a good investment to own a home.

History shows that home ownership is not that great of an investment, and it is very risky. So it is perfectly reasonable for people to be renters.

Now when you think about risk shifting and irrational exuberance as being the causes of the financial crisis, I think the solution to the problem is relatively straightforward. We need much higher capital requirements for banks. If we have much higher capital requirements for banks, then banks will be playing with their own money and not playing with taxpayers' money.

And, we need less emphasis on home ownership as an intrinsically desirable social goal undertaken for its own sake.

So to explore risk shifting a little further, and also to put derivatives into perspective, let's take a look at three different, I'll call them case studies, but three different situations that occurred during the financial crisis which I think are very similar even though they look different. And I'll call them "Bear Stearns," but what I say about Bear Stearns probably applies to Lehman Brothers, and I'll refer to Citigroup, and I'll refer to AIG.

Bear Stearns failed because--not because it had huge losses on its derivatives book, but rather it just owned huge quantities of mortgages that it financed with a huge amount of leverage. And it was allowed to do this because the SEC/CSE program, which was supposed to regulate the investment banks, did not have really high capital requirements and did not have a really strong liquidity requirement that was good enough to keep Bear Stearns in business.

Bear Stearns collapsed when they were not able to finance their inventories of mortgages and securities backed by mortgages in the market because the market lost faith in the company.

The same thing happened to Lehman Brothers. Yes, Bear Stearns had a derivatives book, but the main reason it failed was because of its highly levered risky mortgage positions.

Citigroup, it set up off-balance-sheet entities which invested in very safe, seemingly safe securities backed by mortgages. Citigroup was given almost an infinite ability to leverage these investments because capital requirements were so low. And even though they were making, or thought they were making a few basis points on the transactions, those few basis points shows up as a really high return on capital when it can be leveraged as much as Citigroup was leveraging it. When it turned out these investments were not so safe, Citigroup essentially collapsed.

And then there's AIG. AIG did the same thing, but they used derivatives contracts. They used credit default swaps essentially to insure very safe securities, and they were only making a few basis points on the transactions they thought. But because of the leverage, they thought that they could make a lot of money on this.

In all three cases, the use of this leverage was irresponsible and ultimately led to the collapse of the institutions. But I don't think they would have done it--particularly Bear Stearns and Citigroup--if they hadn't been playing with taxpayer money. If they had been playing with their own money, they would have engaged in better risk management, which I may return to later.

CHAIRMAN ANGELIDES: Thank you very much, Professor Kyle. Mr. Masters.

WITNESS MASTERS: Good morning, Chairman, Vice Chairman Thomas, and Members of the Commission:

I welcome the opportunity to appear before you today to testify on the very important topic of the role played by over-the-counter derivatives in the financial crisis.

Although a combination of factors caused the financial crisis, unregulated derivatives played an essential and uniquely dangerous role. Their impact was two-fold.

First, unregulated credit derivatives were largely responsible for creating systemic risk that turned isolated problems into a system-wide crisis.

Second, speculation ignited by unregulated commodity derivatives sparked excessive volatility in commodities prices which further harmed an already stressed economy.

Both of these problems could have been significantly mitigated by requiring OTC derivatives to clear through a central counterparty with novation and daily margin. This would have created transparency and precluded the systemic risk inherent in a marketplace comprised of opaque webs of interconnected and overleveraged counterparties.

Central clearing would have also made it possible to enforce the aggregate speculative position limits which I have proposed in previous Congressional testimony.

I will first discuss how derivatives created systemic risk. Then I will talk about their role in fostering excessive price volatility.

Unregulated derivatives set the following three fundamental preconditions for the system wide financial crisis.

First, a lack of transparency in derivatives' markets made it difficult for counterparties to see when individual firms were taking excessive risk before the crisis, or to distinguish creditworthy firms from risky ones once the crisis started.

Second, the interlocking web of very large exposures between the major swaps' dealers created the potential for a domino effect wherein the failure of one dealer could lead to the failure of all dealers.

Third, losses do not have to be very high in order to force the first domino to fall due to the extreme leverage that characterized those positions. This leverage was the result of requiring little or no margin collateral to be posted to ensure other dealers bets.

Together, these three factors formed the preconditions for a contagion between institutions as well as between markets. The large volume of trading between swaps' dealers spawned an interlocking web of very large exposures among the 20 or so largest dealers.

When the supposedly highly credit-worthy Lehman Brothers defaulted, swaps' customers, plus many of their swaps' counterparties, immediately lost large sums of money. Swaps dealers were forced to radically re-evaluate the creditworthiness of all their counterparties, and question who might be the next to fail.

The OTC derivatives markets came to a grinding halt, jeopardizing the viability of every participant regardless of their direct exposure to subprime mortgage-backed securities.

Furthermore, when the OTC derivatives markets collapsed, participants reacted by liquidating their positions in other assets those swaps were designed to hedge.

Markets witnessed a sell-off across all asset classes. The sell-off even extended to commodities, a market historically uncorrelated with financial assets prior to the deregulation of OTC derivatives markets.

This brings me to the topic of excessive volatility arising from the intrusion of OTC derivatives into commodities markets.

Unregulated derivatives directly distort commodity prices by facilitating excessive speculation. Index speculation in particular is an especially dangerous source of volatility. It is worth emphasizing that derivatives' dealers thrive on volatility, while the rest of the economy suffers because of it.

In my testimony before the Senate Agriculture Committee last year I explained how the devastation caused by the rapid deterioration of our credit markets, which pushed our financial system to the brink, was greatly exacerbated by the 2008 derivatives' driven rise and collapse in food and energy prices.

In conclusion, I would like to reiterate that during this crisis one single factor stood out in its potential to destroy the financial system as a whole: The massive interlocking web of over-the-counter derivatives' exposures among the biggest Wall Street swaps dealers.

Many financial institutions might have gone bankrupt or suffered severe losses from the crisis, but the system as a whole would not have been imperiled were it not for the propagation of unregulated derivatives' markets.

Thank you.

CHAIRMAN ANGELIDES: Thank you very much, gentlemen, and we are now going to begin Commissioner questioning. And as is the custom, I will begin as Chair, and then the Vice Chair will follow me, and then the Commissioners who led this investigation and hearing will then follow.

Let me start with a couple of questions. I am going to take a few of my questions now, and then defer the balance to after the balance of the Commissioners have spoken.

I want to ask a couple of you about the role that derivatives played in accelerating, or perhaps enlarging, amplifying, the creation, the issuance, the marketing of synthetic collateralized debt obligations backed by mortgage-backed securities?

Some have posed the fact that by the very nature of having these derivatives, it accelerated the market, it enabled the market. And therefore obviously in the end it amplified both the boom and the bust.

So I would like to ask a couple of you to comment on that. I'll start with you, Mr. Greenberger, if you would comment on that: the extent to which credit default swaps amplified, accelerated the market. And I am going to ask a couple of others the same question.

WITNESS GREENBERGER: Well let me break it down into two answers.

First of all, you have credit default swap insuring real risk. That is, people hold and investment in the subprime market and want to get insurance.

Just like we drive cars with comfort, even though we may get into an accident, our insurance policy gives us that comfort. People were investing in the proposition that people without credit, or adequate credit, would pay their mortgages.

That investment became much easier if you could say, hey, I've got an insurance policy. And, by the way, it wasn't just AIG. All these institutions were issuing credit default swap. Read “House of Cards” by William Cohan, or most importantly read “A Colossal Failure of Common Sense” by Lawrence McDonald, a trader and officer within Lehman, who blames credit default swaps for bringing Lehman down.

So, yes, if I've got insurance I'm going to take more risk. They didn't understand that, unlike most insurance policies, no collateral or capital had to be posted. But the real villain of the piece here is, as Eric Dinallo has said, and I know he will be before you, his analysis of MBIA, the monoline which he was in charge of trying to rescue, and AIG, was that for every real insurance policy insuring risk, there were three to four that were a gamble.

In other words, you could buy insurance on somebody else's car, on somebody else's life, or in this case on somebody else's CDO. In the SEC case against Goldman, leaving aside fraud--I don't want to talk about fraud--but just look at that transaction. John Paulson played fantasy CDO. He went across a range of CDOs and picked out the most dangerous tranches. He bet a billion dollars those tranches would fail.

Some poor schnooks on the other side who thought housing prices would always go up, took the opposite end of that bet. John Paulson made a billion dollars. The counterparties lost the billion. Many of them needed to be rescued with taxpayer funds.

So the problem here is only in a small sense the mortgage default. The real problem here is all the gambling--don't forget, state gaming laws are preempted--all the gambling on whether the defaults would occur, that had nothing to do with the real economy. As you said, no warehouses got built. No manufacturing capability. No medicines got discovered. It was just Mr. Paulson, and he could do it legally, bet that non-creditworthy individuals would not pay their mortgages.

That blew a hole in the economy. Because of no clearing requirements, the AIGs of this world never had to post margin. And they woke up on September 16th $80 billion in the hole.

CHAIRMAN ANGELIDES: All right. Mr. Kohlhagen, would you comment on my question, and perhaps pick up on--

WITNESS KOHLHAGEN: I'm sympathetic to what Mr. Greenberger said, and I agree with your contention--

CHAIRMAN ANGELIDES: "Question," but that's okay.

WITNESS KOHLHAGEN: I took it as a contention.

Okay. Then let me state what I believe.

I believe that credit default swaps did enhance the bubble. They were a bubble enabler. I think that the bubble started before credit default swaps.

I think one of the things people need to step back from and realize is that in order for a market to work you have to have sellers and buyers. And once the credit default swaps, once people figured out how to use credit default swaps, there now was a new source of sellers that hadn't existed before. There was no way to actually sell or short the market.

With the development and the rapid growth of credit default swaps starting late in the bubble, there was a whole new source of sellers, and there could be a whole new source of buyers. And so he's right that there were people making and losing money. If you go back to the cause of this, what was going on in the United States' housing industry and the subsidization of the guarantees by the Federal Government of creating a whole new set of home ownership, there were certain costs to the U.S. taxpayers for that.

Nobody knew what it was going to be going in. But once the bubble started, once you had enabled the bubble--and I am agreeing with you that CDOs, synthetic CDOs and credit default swaps enhanced the bubble in the latter stage--you now not only have the cost to the U.S. Taxpayers of the subsidies, but you now had gains and losses, as Mr. Greenberger said, from the market.

So add to the cost to the U.S. Taxpayers the losses the people saw. And people see that as the cost and ignore the billions in gains that he talked about.

CHAIRMAN ANGELIDES: All right. Actually let me pick up on this, and actually, Professor Kyle, I'm going to pick up on your comments about what seems to be a common thread.

No matter what device was chosen by the institutions that failed, each device had extraordinary, or each strategy, or lack thereof, had extraordinary leverage associated with it.

What we have just heard these two gentlemen lay on the table is in essence that you had this large betting parlor. You know, in my opening remarks I referred to the fact that I'm someone who spent 30-plus years of my life in the fields of housing, and investment as a practitioner, and I was quite stunned to see the level of, in a sense, leverage going on and betting going on with respect to these securities.

To what extent do you believe, or not believe that these instruments allowed for the inflation of this bubble? In other words, it may not have been the sole cause, but were they the device-du-jour that allowed this bubble to be amplified significantly?

WITNESS KYLE: So I think my view is the opposite of the other panelists on this. I think that one of the reasons we have derivatives and particular credit default swaps is to allow short sellers to bet that a security is overvalued by selling it short, and then profit if it goes down.

There weren't really good vehicles for taking short positions in mortgages or other securities backed by housing finance instruments in the early stages of the bubble. But as the bubble progressed, you started getting more and more synthetic CDOs and credit default swap type instruments that could be shorted in very significant quantities.

If you don't have short sellers in a market, there is a danger that asset prices will be over-valued; that innocent, or unsophisticated investors will pay more for a security than it's worth. Because without short-selling, only the people with bullish, or optimistic opinions are heard. It's kind of like I'm not allowing the opinions, the negative opinions to be heard in the marketplace.

So as instruments for shorting, subprime mortgages developed and became more commonplace in 2006 and

2007. My opinion is that the short sellers essentially came into the party and turned off the lights a bit earlier than the lights would have been turned off otherwise.

In other words, they helped prevent the bubble from getting worse than it would otherwise have gotten by damping down the values of these securities.

CHAIRMAN ANGELIDES: I am going to challenge that a little in this sense. The fact is that because you essentially had these highly levered bets, you know, the CDS, as Professor Greenberger said, you had the ability for example on all the Goldman Abacus deals for there to be, you know, in a lot of these deals there might have been a $2 billion synthetic CDO where maybe there was $100 to $200 in real money up. And of course that was just a bet because it was, you know, without being pejorative, it wasn't on a real asset; it was referencing securities. But you had perhaps $1.9 billion that was extraordinarily levered.

You know, in essence Goldman, for example, paying AIG $2.1 million a year on a bet that they could ultimately win $1.7 billion.

Isn't the fact that there was this enormous leverage available, didn't that just pump up the balloon? And I will credit my Vice Chair with a question, which is, instead of the balloon being filled with air, was it being filled with helium?

WITNESS KYLE: Well, the big leverage of course is the homeowner who buys a home with no money down.

CHAIRMAN ANGELIDES: Well, there are two points of leverage, correct? I mean, you've got the homeowner doing that, eroding lending standards, but now you have an almost 100 percent bet on that bet.

WITNESS KYLE: Yes. So you have the homeowner who is buying the home with essentially infinite leverage. Then you have investors, or traders in the marketplace using derivatives, and the derivatives are structured to incorporate the ability to undertake a lot of leverage. And the tranching of the mortgage-backed securities, and in particular some of the tranches that went into the Abacus deal that you're going to be hearing about today, those tranches were designed to package a lot of risk into a small investment.

And this enabled buyers of the collateralized debt obligations to take on a lot of exposure to the mortgages with a small amount of money. The synthetic part of it--and the synthetic part of it, let me make it clear, is the derivatives part of it--the synthetic part of it serves the purpose of allowing a trader to take a short position, and to take a short position as Mr. Paulson did with a great deal of leverage.

So that synthetic portion, by allowing traders to take a short position, tends to push the price of the asset down rather than up. So I think that the creation of synthetic CDOs had the effect of dampening down a speculative binge that otherwise was propagating itself with long positions, highly levered long positions, by investment banks and hedge funds and even individual home owners that had gotten out of control.

CHAIRMAN ANGELIDES: All right, go ahead Kohlhagen, and then we will move on.

WITNESS KOHLHAGEN: Are we allowed to comment on that?

CHAIRMAN ANGELIDES: I will allow you to comment. Would you, please, and then I have one observation to make.

WITNESS KOHLHAGEN: The existence of leverage that you both were discussing about, or both discussing, does not necessarily lead to this outcome. I mean, currency derivatives, interest rate derivatives, decades of experience with highly leveraged books, of hedged books by derivatives desks have never led to these kinds of problems.

So it's not a necessary outcome. It's not a necessary outcome of the leverage.

WITNESS GREENBERGER: If I could take fifteen minutes, Mr. Chairman, I would just--

CHAIRMAN ANGELIDES: Fifteen "minutes"?

WITNESS GREENBERGER: Fifteen seconds.

CHAIRMAN ANGELIDES: I only have thirteen minutes left.

WITNESS GREENBERGER: Fifteen seconds.

(Laughter.)

WITNESS GREENBERGER: Like billions and millions, I get confused between minutes. There's nothing wrong with short selling. You just have to have--the other side of the bet has to have the capital to pay it off.

If it were in a clearinghouse, you would short sell and know that AIG had the money to pay the bet off. The American Taxpayer paid these bets off. That's what's wrong with that short sale.

CHAIRMAN ANGELIDES: And that's one of the things that strikes me, is that on a lot of these transactions there was no skin in the game. At the end of the day, the only skin came off the back of the Taxpayers.

You have these people who say it's a zero sum game, but there were clear winners here and losers, and I don't think it takes a math genius to know who the losers were because of the bills that were paid.

WITNESS KOHLHAGEN: AIGFP had 20 years of experience of running derivatives books, hedged derivatives books with never a problem. It was doing these credit default swaps that they did with no hedging at all, just writing them naked, that led to their problem.

CHAIRMAN ANGELIDES: Right. The Vice Chair would like to ask a question. Go ahead.

VICE CHAIRMAN THOMAS: Thank you. On that point, Dr. Kyle, I understand your argument about the need for short sellers, but I guess my biggest problem is in this poker game I kind of like to watch it on TV because I always get to see what everybody else has, and then watch the fool get burned because he didn't know what the other guy had.

My worry is this whole business of transparency, and an understanding of exactly what we thought were sophisticated participants not being as sophisticated or knowledgeable as we thought they were.

And I understand the clearinghouse concept, which kind of helps it clean up, but in the situation we found ourselves did you still think that short was good? Or were they simply betting on a hunch without having similar information? And was there a preponderance of information in one group, or one group thought they had a preponderance of information and therefore did more because they thought they could control the situation?

It's this business of knowing and the failure of transparency on both sides of this game that frankly has just amazed me in terms of the bets they put down.

CHAIRMAN ANGELIDES: And by the way, just a technical matter here, Mr. Vice Chair, I'm actually done with my time, so you can now roll.

VICE CHAIRMAN THOMAS: Okay, I used some of his, so now I'm on my time.

WITNESS KYLE: Okay, so--so I think I agree with you. I believe that if you put more derivatives on organized exchanges, if you standardized the contracts, if you traded them in transparent markets, if you published information about the positions that various parties have, even if you encouraged discussion of how they're priced which is helped by having the prices transparent, the people who are going long and the people who are going short might come to understand why they were disagreeing.

VICE CHAIRMAN THOMAS: Or especially those people who were going short with no chips on the table.

WITNESS KYLE: Well I think the people that went short did have chips on the table. Mr. Paulson I think had a billion dollars worth of chips on the table that he turned into a large profit.

But the people that bought the--took the long positions--

VICE CHAIRMAN THOMAS: Did you state that accurately? He couldn't have had a billion dollars of chips on the table going short, and then walk away with a billion dollars.

CHAIRMAN ANGELIDES: Could I make--

VICE CHAIRMAN THOMAS: Sure, on my time, you go ahead.

CHAIRMAN ANGELIDES: On your time, my understanding is, I believe from the work of our staff, is that I think Mr. Paulson paid about a $15 million annual payment, and I assume it was over probably about a two-year period or so, or three-year period, until payoff. So that was the ratio of leverage essentially.

VICE CHAIRMAN THOMAS: And the other concern, and I'm jumping in the middle on a specific question, and I'll go back to a broader approach in a second, was the idea of leverage and the possibility that insurers--maybe AIG in particular--didn't even understand the mechanism in terms of their responsibility to put up real money if there's a change in relationship of the value.

I mean that's a pretty fundamental rule of the game that you would think insurance companies would understand what it was that they were insuring against. And how the consequences of that policy would operate.

WITNESS KYLE: Okay, so let me make two points.

Many people think that short selling is extremely dangerous because your upside losses are kind of unlimited if the price of the asset skyrockets.

VICE CHAIRMAN THOMAS: It depends on what you know and when you know it.

WITNESS KYLE: It does depend on what you know and when you know it. And this is true in particular if you're talking about individual stocks. But if you're talking about taking a short position in a security that everybody else deems to be AAA, or extremely safe, and it's--

VICE CHAIRMAN THOMAS: Well we'll get to that later about what AAA means.

WITNESS KYLE: --but if everybody thinks it's AAA, the potential losses on taking a short position on such a security are very small.

I mean, how much is the price of a security that everybody trades if it's AAA going to rise and move against you if you've taken a short position?

VICE CHAIRMAN THOMAS: If everyone thought it was going to be a good bet, there would have been more with Mr. Paulson, wouldn't there?

WITNESS KYLE: You would have thought so. So Mr. Paulson in taking his position in credit default swaps was not posing a risk to Taxpayers that he might lose money. He was paying a fee to buy insurance. That was his money coming out of his pocket, or his hedge fund's pocket. And he stood to lose the money that he was paying for the insurance. But he stood to make a great deal if a catastrophe occurred in the debt markets for those instruments, which indeed it did occur.

So I don't think he posed a risk to Taxpayers. But certainly the people on the other side of the transaction did pose a risk to Taxpayers.

CHAIRMAN ANGELIDES: Well, and again we're doing a little duo here this morning. We both said we came and we'd read all our materials. There was so much, and so interesting, we were unscripted because there was so much we wanted to see where this goes, but that's a key point there.

That of course Mr. Paulson was not systemically important. On the other side of the bet, you ended up having institutions that turned out to be. And therefore the size of the bets, the size of the betting does matter in the end. And who does it matters in the end.

WITNESS KYLE: Yes. And bond markets are different from commodity markets in the sense that typically in a commodity market when the price of the commodity starts rising, things start getting more risky and more volatile. When prices fall, typically things calm down.

In bond markets, it is just the opposite: When prices rise, bonds become safer; things calm down. When prices fall, things go haywire.

So in the case of the other side of Mr. Paulson's bet, as prices fell volatility increased. These collateralized debt obligations were structured in such a way--

VICE CHAIRMAN THOMAS: Margins.

WITNESS KYLE: --as to magnify the volatility if prices fell. And Mr. Paulson knew that and was hoping to profit from that as prices fell.

But back to your earlier question, there was fundamental disagreement in the market between those who thought that housing prices would go up forever and those, like Mr. Paulson, who thought that housing prices would come down.

And my experience, having debated with people during the bubble, during this period, was that you could share your opinions with people, but people would not change their mind. There was some fundamental disagreement among the various participants in the market, and this disagreement occurred on Wall Street. It also occurred on Main Street as you talked to people who thought it was a good idea to buy a much bigger house than they needed because it was a good investment.

VICE CHAIRMAN THOMAS: Just to respond to that, you know economists are fond of saying that all of the things being equal, and if the mortgage market looked like it used to, 20 percent down, you get a statement of income, what you've done, the rest of it, it wouldn't have been what it was.

And so to a certain extent, there were people assuming certain things. They didn't do their due diligence. And what it was that they had as a AAA-rated, it isn't what it used to be, but people were given assurances that it was. So to a certain extent, to me there was a great deal of ignorance on people who should not have been ignorant about the level of participation.

And I would be much more concerned about those poker games I watch if my money was staking one of those guys who keeps doing what he's doing and he ain't gonna be at the table long. Reaction?

WITNESS KOHLHAGEN: Mr. Vice Chairman, I don't want to comment on the poker game analogy, but I do want to go back to something about two-and-a-half minutes--

VICE CHAIRMAN THOMAS: What gambling type would you prefer that I use? Roulette wheel?

WITNESS KOHLHAGEN: I'll let you do the analogies.

(Laughter.)

VICE CHAIRMAN THOMAS: Okay.

WITNESS KOHLHAGEN: A couple of minutes ago you asked a question. I want to make an important clarification, if it's not understood by everyone. AIG is an insurance company. It was in fact the strongest, most financially secure, best-run insurance company maybe in the history of the world.

VICE CHAIRMAN THOMAS: Somebody you wanted on the other side of your deal.

WITNESS KOHLHAGEN: Yes. AIGFP had nothing to do with insurance. They were a derivative subsidiary. They still are a derivative subsidiary. And the people who managed and ran AIGFP and worked at AIGFP knew nothing about insurance.

So it would be a mistake to view AIGFP as an insurance entity. The executives who ran AIG were responsible for managing the subsidiary, and clearly in this case they failed.

VICE CHAIRMAN THOMAS: Okay. And that brings up another whole series of questions about how it was handled after the fact, and that particular segment. Could it have been severed, and a whole bunch of other questions, which we may get to.

Let me now start my time in terms of what I usually do on my time. First of all, thank you for already being fairly frank and allowing us to get some degree of different answers which will help us better understand and we will do more of it.

What I would ask of you is, not to stand but to simply please say 'yes' to the question: If we have information based upon your testimony, or we discover other information as we continue to go forward, would you be willing to respond to questions that we would put to you in writing following this hearing?

(The witnesses nod affirmatively.)

VICE CHAIRMAN THOMAS: She can't record head nods.

WITNESS GREENBERGER: Yes.

WITNESS KOHLHAGEN: Yes.

WITNESS KYLE: Yes.

WITNESS MASTERS: Yes.

VICE CHAIRMAN THOMAS: Thank you very much. You know, some of us really did think if the rules of the game would remain the same that house prices would go up. I'm a creature of Southern California, and frankly no one who didn't have to pay rent paid rent. And it paid off for a long time.

And anyone looking at the Tax Code, if you had the ability to buy a place that you could reasonably afford and it fit into your three-times income, all of those little calculations that people used to use, that it was usually very, very rich people who didn't worry about trying to build a nest egg in a way that seemed to be reasonable who would rent.

So to what extent did the Tax Code play a role in moving us in the direction that we eventually went? Since you mentioned renting versus buying?

WITNESS KYLE: I think that the deductibility of interest and property tax payments encourages people to buy homes. It does make the rent/buy calculus favor home ownership.

On the other hand, if you compare the United States with other countries, we have very high property taxes. So I view the deductibility of interest as being largely offset by the high property taxes that we have in the United States and therefore view it as a kind of neutral as to rent versus buy.

Like you, I used to live in California and I talked to people a lot about the rent versus buy calculus. So I went online a few years ago in the middle of the bubble--I think it was about 2005 and 2006--and downloaded about 40 or 50 rent versus buy calculators, and I learned two things from those calculators, or three things.

First of all, they all gave a different answer. Second of all, they all said you should buy a home. And third of all, all of them were wrong.

VICE CHAIRMAN THOMAS: And they were all sponsored by realtors.

(Laughter.)

WITNESS KYLE: Most of them were sponsored by realtors, and realtors generally tell you to buy a home. My experience sitting down with homeowners and actually trying to get homeowners to go over the numbers was that homeowners really hadn't figured out whether it was valuable for them to rent or to buy. And in particular, in California rent yields traditionally--at least back in the 1980s--in many periods have been very low. So it's an easy decision to rent.

VICE CHAIRMAN THOMAS: And you also haven't touched on the Tax Code provision, which concerned me from the time that we didn't clear it up, having been on the committee, was when we decided to not allow the deduction of consumer interest; that we didn't insulate, isolate, and protect the equity in your home from cleverly, and sometimes not so cleverly, being utilized for consumer interest rather than building up equity in the home.

WITNESS KYLE: I personally feel that the decision to allow interest deductibility of home mortgage interest but not allow the deductibility of credit card debt interest undermined the integrity of the housing market.

VICE CHAIRMAN THOMAS: It certainly did, in terms of producing a check for the equity that you gained every month so that you could spend it, leaving people with no margin after having lived in their home for years, of protection that you would have thought ordinarily would have been in the home.

WITNESS KYLE: And not only that, it of course encouraged people to take their credit card debts and kind of transfer them over to their mortgage effectively so that they--

VICE CHAIRMAN THOMAS: Sure, or the RV, or the--

WITNESS KYLE: --so that they could get the interest deductibility.

VICE CHAIRMAN THOMAS: That was the problem.

WITNESS KYLE: And it also encouraged banks to think of home mortgages kind of like credit card debt, which implies that the incentives to get let's say a good appraisal on a house are undermined at the level of the bank, because the bank is really in some sense making something akin to a credit card loan to the homeowner and not something that's your traditional mortgage that you referred to earlier where the homeowner makes a 20 percent down payment based on a legitimate appraisal and verification of income.

VICE CHAIRMAN THOMAS: Well, and we'll go into in some detail what my colleague from Las Vegas indicated to me that there have now been 123 indictments in Las Vegas for mortgage fraud. In even my own town we have several cases that are clearly indicated. And obviously the discussion that we had from the '80s simply seems like petty misdemeanor based upon what occurred toward the end of the session.

I am going to reserve my time because I want to make sure that some of those who are very interested in the narrow issue, which is the one in front of us, derivatives, have maximum amounts of time to pursue that. But I do want to come back near the end, Mr. Chairman, and ask this panel if they would be willing to answer some questions based on the fundamental concern we have, which is what are the fundamental underlying causes of the financial crisis. And maybe we'll get to vote on some of them. Thank you. I reserve my time.

CHAIRMAN ANGELIDES: Thank you. And I am going to, as I said, reserve the balance of my time for the end.

Ms. Born.

COMMISSIONER BORN: Thank you very much, Mr. Chair. I appreciate all four of you appearing today to help us explore the role of over-the-counter derivatives in the financial crisis.

We have experienced the most, and are experiencing the most significant financial crisis since the Great Depression, and it appears that regulatory gaps, including the failure to regulate over-the-counter derivatives may have played an important role in the crisis.

As a result of pressures from a number of the country's largest financial institutions who are and were our largest derivatives dealers, Congress passed a statute in 2000 called The Commodity Futures Modernization Act that eliminated virtually all regulation over the over-the-counter derivatives market.

Because of that statute, no federal or state regulator currently has oversight responsibilities or regulatory powers over that market. The market is opaque and is often referred to as "the dark market."

It is enormous. As of December of last year, the reported size of the market was almost $615 trillion in notional amount, still more than 10 times the gross domestic product of all the nations in the world.

While over-the-counter derivatives have been justified as vehicles to manage risk, they in practice can spread and multiply risk as well. Lack of transparency, lack of price discovery, excessive leverage, lack of adequate capital and prudential controls, and a web of interconnections among counterparties have made this market dangerous, and we will be examining the role that the market has played in the financial crisis.

Warren Buffett has appropriately dubbed over-the-counter derivatives "financial weapons of mass destruction." And in a recent Commission hearing he said the time bomb is still ticking.

Congress has just taken an historic and important step toward closing this regulatory gap when the Conference Committee on Financial Regulatory Reform decided on a bill that would impose comprehensive federal regulation on derivatives, including the requirement that most derivatives must be traded on exchange and centrally cleared.

I look forward to its passage into law and its full implementation in order to protect the public from the systemic dangers posed by the market.

And as my first question I would like to direct it initially to Professor Greenberger, and it concerns the deregulation of these markets. In your view, did deregulation of the over-the-counter derivatives market in any way contribute to the financial crisis? And if so, would you explain how?

WITNESS GREENBERGER: I believe it certainly did. And just to go back to the AIG example, or the person who took the opposite end of Mr. Paulson's bet--by the way, Mr. Paulson made that bet with $15 million. He got $1 billion. If he had lost the bet, he would have lost $15 million. He had absolutely no risk. AIG had complete risk.

Now let's take AIG. Suppose we had had traditional market controls. We have heard that the management of AIG didn't understand what was happening. If we had had traditional market controls, the subsidiary would have had to go to the holding company and say I've got to put collateral down. $80 billion probably would have been $7 billion in collateral.

And when the adults in AIG understood that they were insuring mortgages by non-creditworthy individuals, my confidence is that they would have said: Are you kidding? We're not giving you $7 billion to run the risk of $80 billion.

Then, Vice Chairman Thomas said, well, you know, there's no transparency here. If the exchange trading had been involved, the regulators would have known that AIG was buying these positions like crazy. The Fed, the Treasury, the CFTC, and probably state insurance regulators would have said: What are they doing here? They're running up this phenomenal risk.

But we didn't have clearing. So they never had to post anything. They're AAA rating. They could make these bets of $80 billion without putting a shekel on the table.

The holding company didn't know what was going on. When AIG failed, there was $20 billion in reserves of all the regulated insurance subsidiaries, and on September 16th there was an $80 billion hole with the FP subsidiary.

So if you have regulation, you have--as the value of that bet declined minute by minute, AIG would have been called up by its clearinghouse, post margin. Post margin.

And not wake up one day and find they were $80 billion in debt.

And if they hadn't posted margin, the deal would have been shut out. If it was on an exchange, everybody would have seen what was happening. The regulators would have seen this phenomenal risk taking that was going on, and I'm confident that somebody would have said: Holy cow! Holy cow! And finally, we're not in the Lehman bankruptcy. There are major fights over what the value of these instruments are.

The creditors are saying they're worth a billion. Lehman's saying they're worth $500 million. If you're on an exchange, the market prices these things minute by minute. You don't have these disputes. We couldn't rescue or buy the TARP assets because we didn't know what the price was.

So if there was regulation, my view is these crazy bets on bus drivers paying off $400,000 mortgages would have never happened. If they had happened, the collateral that would have been called would have dampened this market substantially. The transparency of the exchange would have alerted not only regulators but market observers that craziness was going on here. Let's head it off.

And finally, we would have prices and not debates over prices.

COMMISSIONER BORN: So one of the things we are going to be looking at later today with AIG and Goldman Sachs is the price disputes that they entered into about the value of the underlying reference assets, or synthetic assets for the CDS. And also, the need for AIG suddenly to post enormous amounts of money.

What I am hearing you say is that, if this had been trading on an exchange, there would have been price discovery that showed what the values were, and what one party would owe to another. Is that right?

WITNESS GREENBERGER: That's exactly right. We can't have a debate over what the worth of an IBM stock is. I can't tell you it’s worth a billion, and you can't argue with me that it's $500 million. The market tells us minute by minute what an IBM stock is worth.

The same is true with pork bellies that are sold on exchanges. We can't argue over what the price is. The market tells you minute by minute what the price is.

Because these were opaque, off-exchange, private bilateral transactions, the only methodology for determining a price is using crazy mathematical algorithms. That's called mark-to-model.

So you get in these phenomenal disputes that Lehman in its bankruptcy is now having with its creditors. By the way, Lehman entered into 930,000 unregulated over-the-counter derivatives; 6,000 of its creditors are in disputes with it. One of the creditors is claiming its claim is worth a billion, and Lehman has sued them saying it's an exaggeration by hundreds of millions of dollars.

If you exchange trade, the free market tells you what the value is and you end all these disputes.

COMMISSIONER BORN: Well, and I also think I understand you are saying that once the price is adequately discovered through exchange trading, there is no big buildup of indebtedness by one side of the contract to the other because of the clearing mechanism?

WITNESS GREENBERGER: Absolutely. When AIG entered into these bets, it didn't all of a sudden become a bad bet. It gradually--as the housing market became more risky, that bet became a more risky bet. The value of it declined.

And in a clearing situation, the clearinghouse twice a day would have gone back to AIG and said, hey, you lost a million dollars today. Post the margin. Maybe at noon they would have done that. At five o'clock, another million.

And again, the adult supervision at AIG would see all this margin going out. Why? Because the contract was losing money. Not all at one time. Day by day. This crisis didn't build up overnight. And instead, because they had to post no collateral, you get into these arguments between Goldman and AIG. All of a sudden Goldman is saying, post collateral. How much collateral? We don't know. And you have a fight over that.

In a clearinghouse, twice a day, based on the minute-by-minute pricing, the clearinghouse tells you how the market is going against you. And by the way, if you can't pay the margin, the clearinghouse closes you out right then and there.

The best thing that could have happened to AIG was a couple of days into this crazy process they were closed out by their clearinghouse.

COMMISSIONER BORN: Mr. Masters, can I ask you to explain further your statement. You have said that you thought over-the-counter derivatives, particularly credit default swaps, played a role in creating systemic risk that made the financial crisis worse, and it indeed extended it systemically.

And as I understand it, you described the interconnections between the large over-the-counter derivatives dealers and other big financial institutions. In fact, you have quite a wonderful chart in your testimony that everybody should take a look at that illustrates maybe just a few of the interconnections, since I believe there were millions and millions of contracts outstanding.

Could you describe how these interconnections created systemic risk?

WITNESS MASTERS: Sure. So the interconnections, the problem with the interconnections not having these trades on a clearinghouse of some form where everybody--the clearinghouse was standing, to what Michael was saying, in the middle of all these trades, was that no one really knew who had what.

And so once you had one domino fall, which I was describing in my testimony, all the dominos could fall. Because suddenly if you had CDS on let's say with Lehman Brothers, and let's say you had CDS on a mortgage bond, or you had it on some other bank's portfolio that you had hedged, suddenly you didn't know if that CDS was good anymore. Because embedded in every CDS contract is a credit counterparty part of the contract.

So there's the bet. And then there's the credit counterparty. And the problem with that is that--

COMMISSIONER BORN: So when you say "credit counterparty," you mean there's a credit risk as well that the counterparty might not be able to pay you?

WITNESS MASTERS: Correct. And I think for a long time people just sort of ignored this. They said, well, you know, I've got this on with Goldman, or with Lehman, or with AIG, or whatnot. And suddenly when Lehman went down, people said, wait a minute. I've got all of these over-the-counter credit default swaps on. I've got over-the-counter other instruments on. I want it all back. I want to unwind all my bets.

And the whole problem with that, having this interconnectedness if you will, is it's the worry of what does the other person have? And so when everybody is worried about what everybody else has, what they do is they say, oh, well I just want all my chips back.

And everybody collectively said: I want all my chips back. And so you saw correlations in the markets go to one. You had the very situation you had. And that's how systemic risk was transferred. It went from one, to the other, but it was the fear of everybody's bets were bad.

Because if Lehman wasn't going to pay off, then what about AIG? And in my view that was one of the reasons why AIG was toppling a few days later. Because if you couldn't trust AIG, now what do you have to do? And it is further my belief that I think Treasury was going to let AIG go until they realized that if AIG went, you know, everybody else was going to go. And literally it was like dominos.

COMMISSIONER BORN: So it was partly the counterparty credit risk. That is, that if AIG defaulted on its CDS, then its counterparties would be in a vulnerable financial position themselves might then default on their derivatives' obligations and even fail themselves, as

AIG did. Is that right?

CHAIRMAN ANGELIDES: Before you answer, I'll yield five minutes.

COMMISSIONER BORN: Thank you.

WITNESS MASTERS: That's right, Commissioner. And so what you had was again this embedded credit bet, within every bet one makes, when one is making a bet in the over-the-counter market. Because if your counterparty fails, what do you really have?

And so there was a massive switch after Lehman Brothers went down to go to other counterparties to try to replicate what other folks have, or to just take your bets off overall. And we've talked to institutions about this--pension funds and others. And suddenly they said, well, we want all our bets back.

Well so now you've got a commodity index swap on. And that's been fully collateralized, and you've got that on with Goldman, or AIG, or whoever, and you say, well, I want it back. Well as soon as you say I want it back, now there's a chain reaction. Goldman has to sell the commodities that were in it. You get your money back. Suddenly there's this huge disruption in the commodity markets that's coming from the derivatives markets, really the credit counterparty of the derivative markets.

And again, that's how you saw the contagion from one market to other markets.

COMMISSIONER BORN: So it's partly--this uncertainty and fear of exposure to your counterparties led to pulling out of contracts. Did the derivatives market freeze up?

WITNESS MASTERS: The over-the-counter derivatives markets freezed up. One interesting thing is the exchanges didn't. The exchanges where one had a counterparty centralized. There was no problem with the exchanges. The only problem was with the over-the-counter market where you didn't know who your counterparty--you knew them, but you didn't know if they were good anymore. And that's the real difference.

COMMISSIONER BORN: We had a hearing on the shadow banking system and how there was essentially a run on the investment banks through repo markets, through commercial paper markets. Was part of the run on the big investment banks also a derivatives market run--a derivatives counterparty run?

WITNESS MASTERS: I don't think there's any question that that was part of it. I mean, I knew plenty of hedge funds that were, you know, trading with that, knowing that, you know, if you had, you know, a $50 trillion derivatives book that you didn't know if the counterparty was good anymore. I mean, you know, nobody has $50 trillion of capital. And so it causes all sorts of other fears.

I mean, people that own Goldman Sachs stock suddenly say, you know what, I don't want to own it anymore. I don't think there's any question that there was fear, and legitimate fear, because I believe that had Treasury not stepped in to save AIG, we would have lost all the investment banks in a matter of time.

COMMISSIONER BORN: So you think there would have been a cascading of failures throughout the financial system. What would the effect of that on the financial system itself have been?

WITNESS MASTERS: Well you would have had--you lost the shadow banking system, and to a large part that hasn't come back to any extent. I mean, we've lost a lot of facets of that part. But you would have--the shadow banking leverage that was out there would have come back to affect the regulated financial system. And you would have had many more bank failures. You would have had many other financial participants that would have gotten hurt, more so over a period of time because the derivatives counterparty issue was so much larger than the regulated area that it had a very significant effect.

So that is how the systemic contagion started with derivatives, and then led to markets really around the world--not just here in the U.S. but in other countries.

COMMISSIONER BORN: Does this suggest that, or do you feel that lack of regulation of the over-the-counter derivatives market played any role in establishing a fragility in the system that let it play this role in the financial crisis?

WITNESS MASTERS: I don't think there's any question. I mean, lack of regulation was one of the key issues. I mean, not having clearing--you know, you'd ask regulators what--for instance, a few years ago people said what's the value of commodity derivatives out there? Well they couldn't tell you. And they couldn't tell you because they couldn't see the market.

In my view, with the benefit of hindsight the Commodity Futures Modernization Act was an unmitigated disaster. It is one of the worst pieces of legislation that I've ever seen with regard to the economy. And, you know, today we are trying to fix a big problem, but it's a long battle.

I mean, it opened up all sorts of issues. Not having regulation in these markets is just not acceptable.

CHAIRMAN ANGELIDES: Ms. Born, a couple more minutes, or--

COMMISSIONER BORN: Sure.

CHAIRMAN ANGELIDES: Okay, and then we'll--

COMMISSIONER BORN: Let me ask you. Another area that you touched on that the other witnesses did not is the impact of derivatives on the commodity bubbles, or the role that they caused in the energy and food bubbles in 2008 where, you know, the price of oil skyrocketed to over $140, and then came back down to $33.

Could you comment on how derivatives, perhaps on exchange derivatives, perhaps off-exchange over-the-counter derivatives, played a role there?

WITNESS MASTERS: Well, so really for the last decade, really, since 2003, commodities became sort of an accepted, quote/unquote, "asset class" for institutional investors.

And the way many of the large institutional investors decided to allocate into commodities was via commodity index swaps, or some other kind of commodity swap, which allowed them--

COMMISSIONER BORN: Let me ask you, who sold those commodity index swaps?

WITNESS MASTERS: The large dealers: Goldman, AIG, JPMorgan, Lehman Brothers.

And so when they marketed these, quote/unquote "investments" to their clients, there was a significant amount--I mean Wall Street, one thing they're pretty good at is marketing--and there was a significant amount of money flow that went into these derivative instruments that then affected the price of these commodities. And markets allocate via price.

So dollars went in and the price had to change to account for that. And so you had a very significant rise that was amplified by large institutional investors. You know, commodities may have gone up, but they probably wouldn't have gone up anywhere near the levels they achieved without this amplification, this inflow of large investment dollars from institutional investors.

And then, when you had the credit crisis, when you had the Lehman blowup, then suddenly again the counterparties were where people were worried. Money came out. And prices came down just as fast.

CHAIRMAN ANGELIDES: Thank you.

COMMISSIONER BORN: Thank you.

WITNESS KOHLHAGEN: Can I--

CHAIRMAN ANGELIDES: Well, actually let's do this. Mr. Vice Chairman would like to make a comment.

VICE CHAIRMAN THOMAS: Thank you. One of the advantages of having a panel of experts is the interaction between the panel of experts. And if there is a significant delay in time in response, it kind of loses the purpose.

However, Commissioners control their own time. And so I will, if necessary, periodically, since I saw him being antsy out there, he wanted to say something, and it's your time.

WITNESS KOHLHAGEN: Okay, thank you. Very briefly, I would like to take the other side of what he just said.

VICE CHAIRMAN THOMAS: Yes, but not in the same period of time.

(Laughter.)

WITNESS KOHLHAGEN: No.

VICE CHAIRMAN THOMAS: Okay.

WITNESS KOHLHAGEN: First of all, everything you say about the--both you and Commissioner Born say about the commodity markets is correct, but it did not contribute to the financial crisis. It did what it did, but it did not contribute, (a).

(b) To your point about the over-the-counter derivatives market, I'm sorry I respectfully disagree. It did not freeze up. Those are speculative projections on your part. I agree with you and Secretary Born that if the government had not bailed out AIG that the over-the-counter derivatives markets would have failed and crashed. But the government did bail out AIG, and the over-the-counter markets did not crash and they did not stop functioning.

WITNESS MASTERS: I would just make the answer to that that--

VICE CHAIRMAN THOMAS: Mr. Chairman, on somebody else's time he can answer. I was just trying to get a balance. But if we're willing to take a common pot, this kind of an exchange can be helpful if it's advancing our understanding rather than pushing an argument for the sake of an argument.

CHAIRMAN ANGELIDES: If there is something extraordinarily compelling, why don't we just, on common time, just literally 15 seconds each, quick comments. Mr. Kyle? Mr. Masters, yes.

WITNESS KYLE: A quick comment,, which I agree that it is important for the CFTC or the government to have good information about what is going on. And they need that information in real time. And even if a large number of derivatives contracts move to organized exchanges where the information in principle could be made available in real time, the government and the public needs information about what is going on in the OTC markets that hasn't gone to the organized exchanges.

So it is very important to get that information collected. It is very important to get that information stored and processed in a common form. And it is very important for regulators to have access to it, and it is very important for market participants to have access to that part of it that is not too proprietary. And the Office of Financial Research, which is part of the new bill, actually is going to accomplish a lot of that.

But I don't think of it as a regulatory agency. I think of it as an information collection agency. It's not going to be telling people how to run their business; it's going to be providing information and transparency.

CHAIRMAN ANGELIDES: Mr. Masters, literally just quick.

WITNESS MASTERS: Sure. I would just answer, you know, two issues with regard to commodities. You know, in my view a speculative bubble in commodities has significant consequences for the American public, and had significant consequences with regard to furthering the financial crisis.

And then second, with regard to the derivatives markets not freezing up, I was there during the period. If it didn't--you know, had we lost AIG, it would have totally stopped. But there was palpable fear out there. And it was as close as I would want to come to the markets freezing up.

CHAIRMAN ANGELIDES: All right. Thank you. Mr. Hennessey.

COMMISSIONER HENNESSEY: Thank you, Mr. Chairman.

I want to see if I can try to clarify a few things that are confusing me, because there's been a lot of language thrown around in this debate and I think the language sometimes gets sloppy, not from the four of you but generally, and I think that sloppiness in language really detracts from understanding what the problems are.

I am going to try and tackle a few things. One is, I think there is an assumption that math is evil, because I think a lot of people don't understand it and they're afraid of it.

Two, is I have heard a couple of you say that derivatives or credit default swaps were culprits. And I think that derivatives and credit default swap are things, and things can't be culprits any more than a hammer used in a murder can be a culprit. The person who uses the hammer, or misuses the hammer is the culprit.

And I am concerned that in a lot of cases what we may be doing is confusing form, or the instrument, with the actor who is using that instrument. That is kind of what I want to drill down into.

Another is we've heard that credit default swap are or were the cause of the crisis, and I want to explore that a little bit. And then I also want to, if I have time, talk about the question of whether or not side bets are bad.

I would just like to say, as a general matter I am in favor of the capital requirements that we are talking about, and generally for pushing things onto exchanges, and for greater transparency.

But as I look at the different problems, first I want to start with CDOs, and then I want to go to the CDS world. It seems to me that I can explain a lot of what happened with some very simple assumptions.

So first, if we start with a collateralized debt obligation, if I assume that two primary causes were, one, people made a bad assumption about housing price declines. And, two, people made really bad assumptions about the correlation of housing price declines across different regional markets.

It seems to me that those two errors can explain all of the poor valuation of collateralized debt obligations. Just general comments on that? Mr. Kyle?

WITNESS KYLE: Yes. I--

COMMISSIONER HENNESSEY: Setting aside hybrids, which have CDS with them, which is a different--

WITNESS KYLE: I agree that overly optimistic assumptions about housing prices and overly low assumptions about correlation are important. But two other things are also important.

One is, when do homeowners default on their mortgage? Do they default when they're underwater 20 percent? 40 percent? 50 percent? And so forth. Those kinds of assumptions are important in these valuations.

Another assumption that is important is what are going to be the recoveries, given that a homeowner defaults?

That depends in part on the ease with which a creditor can foreclose on a homeowner. If it takes a long time and the homeowner trashes the house, the recovery is going to be much lower.

So I would add to your list--

COMMISSIONER HENNESSEY: Okay, good. Now--

WITNESS KYLE: --these additional issues, which--

COMMISSIONER HENNESSEY: In both cases, though, those are poor--those are incorrect assumptions about inputs into a model.

WITNESS KYLE: Correct.

COMMISSIONER HENNESSEY: Right? It's not--Mr. Kohlhagen said this in his testimony--it's not the model itself, or the fact that you're using math or a spreadsheet to turn a whole loan into a mathematically complex set of financial products.

And I guess what I'm trying to understand here is--Mr. Greenberger, Mr. Kohlhagen, Mr. Kyle--do any of you believe that the process of turning a whole loan into a CDO by itself changes the amount of risk that's involved? Or somehow was a cause of the crisis? Setting aside the other questions of what was done with that CDO, or the lack of transparency with that CDO, is the creation of a CDO by itself a bad thing, or was it a cause in this case?

WITNESS KOHLHAGEN: I'll go first. The kids who priced those CDOs--and I managed a whole bunch of them then, so I can call them kids--basically did not have a clue about what was going on in the credit markets in the United States.

So they were making forecasts--not necessarily assumptions, but forecasts of probabilities of default, probabilities of foreclosure and volatility of the markets in an arena in which they simply did not know what was going on, I used in my testimony, Peoria. They did not understand what was going on in the real world.

COMMISSIONER HENNESSEY: Right. And you talked about basically the management issue of the two different silos, the credit guys not talking to the math guys.

WITNESS KOHLHAGEN: I don't think it--I think it determined the magnitude of the crisis. I don't think it caused the crisis. In other words, if they had made those forecasts in the ether they were living in, and they'd only been a little bit wrong, then the losses would have been considerably smaller.

But they were staggeringly wrong because they didn't know what was going on, and no one was telling them. And so what it caused was a huge magnitude of crisis. It didn't cause the crisis. There's still an amount of crisis.

COMMISSIONER HENNESSEY: Do you have a view?

WITNESS GREENBERGER: I basically agree. All I would say is your point about being angry about math--

CHAIRMAN ANGELIDES: Would you turn on your microphone?

WITNESS GREENBERGER: Your point about being angry about math, I'm not angry about math.

COMMISSIONER HENNESSEY: Oh, I wasn't suggesting you were.

WITNESS GREENBERGER: But I just don't want to have a GM stock determined by an algorithm. I think it is much preferable that the market determines that price. And the market--these kids were determining the price. There wasn't a vehicle, an exchange-trading vehicle, for the market to determine the price.

The algorithms will never do as well as the market.

COMMISSIONER HENNESSEY: Okay. I want to try and turn to credit default swaps now. And in particular I want to try to understand, were there problems with credit default swaps themselves, the existence of credit default swaps? Were they a cause? Or was it basically the lack of a capital requirement, which meant that AIG could just keep cranking these things out infinitely? And then the fact that the risk itself that was created by those products was concentrated?

It seems to me that if those credit default swaps had not been sold by a single firm, but instead had been spread out among 50 firms, if you hadn't had the concentration of risk in a particular place, and we've talked about the counterparty risk and the poor understanding of it, it seems to me that those two factors can explain everything that's going on. And the CDS is basically a mechanism through which the underlying problems of concentration of risk and poor understanding of counterparty risk were the actual underlying causes. Comment?

WITNESS KOHLHAGEN: I agree with Commissioner Born, and apparently everybody here, that increased capital requirements are going to help. Increased regulation may help. Better information and transparency may help.

But in the end, if people behave irresponsibly in a very, very, very large way, they will have very, very large consequences.

COMMISSIONER HENNESSEY: In the case of say AIGFP, that irresponsible behavior was essentially taking one side of very, very large bets--

WITNESS KOHLHAGEN: In an unhedged way. It's stunning. It was a subsidiary that made billions of dollars over 20 years on the economic and business philosophy of selling and buying things on a hedged basis. And they sold $80 billion unhedged.

COMMISSIONER HENNESSEY: And so my core question is: Understanding that the lack of capital requirements made it easy--facilitated AIGFP's ability to do that, was the problem itself the mechanism that they used to do it? Or was it basically here were a bunch of guys who were taking really bad, unhedged risks?

WITNESS KOHLHAGEN: The latter.

COMMISSIONER HENNESSEY: Okay. Other views?

WITNESS GREENBERGER: Well I think you also have to add naked credit default swaps into this. That is, people who had no risk who were able to bet. That exponentially increased--when a mortgage failed, you had the CDOs fail, and the insurance on the CDOs, but you also had the bettors, who Mr. Dinallo says were three to four times the size of the actual mortgage.

Convert that. It may very well have been, if there had been no naked CDS, like you can't have naked insurance--I can't insure your life or your car--this would have been a much smaller problem. Maybe one-quarter the size of the problem.

So for that reason, I would say--and by the way, Germany has just banned German citizens being able to buy naked CDS on sovereign defaults in Europe. That is where we are going to head. I'm not advocating that, nor is Congress, but when we get into these crises further, the anger about the betting will be--

COMMISSIONER HENNESSEY: I'm going to interrupt you. Just because the Germans did it doesn't mean that we should do it. And just because people are angry about something that a lot of them don't understand is not sufficient justification for doing it.

But again I want to focus on the causes here of the crisis. Because I am having a tough time understanding why side bets--which is what a naked credit default swap is--why a side bet in and of itself is a bad thing.

WITNESS GREENBERGER: It's a fine thing if you do it in Las Vegas, or Atlantic City, where it is fully regulated for cheating, capital requirements, and everything else. Having side bets--

COMMISSIONER HENNESSEY: Good. Good. Okay, wait, but let me interrupt you here because my time is limited. Is a properly capitalized, transparent, no-collusion side bet in a financial market a bad thing?

WITNESS GREENBERGER: I would want to think about that, but my short answer is no. It's just that it's a Utopian consideration from where we were that it's hard to go into the hypothesis.

COMMISSIONER HENNESSEY: Right.

WITNESS GREENBERGER: But we would have been a lot better off if Las Vegas had handled these side bets.

COMMISSIONER HENNESSEY: I have no doubt that--

(Laughter.)

COMMISSIONER HENNESSEY: I have no doubt that the existence of naked credit default swaps allowed these firms that wanted to leverage up these bets to do so easily.

What I am trying to understand is: Was it the lack of capitalization? The lack of transparency? And the leverage and concentration of risk that was the actual problem? Or was it the fact that there wasn't an underlying security?

I mean, you can buy and sell puts, right? And they're in effect a similar sort of risk-bearing mechanism we don't have problems with.

WITNESS GREENBERGER: Mr. Hennessey, you are positing a fully regulated system. I agree, if there was a fully regulated system there wouldn't have been the problem.

COMMISSIONER HENNESSEY: Okay.

WITNESS KOHLHAGEN: My short and long answer to your question is: No.

COMMISSIONER HENNESSEY: Okay.

CHAIRMAN ANGELIDES: Which question?

WITNESS KOHLHAGEN: Whether or not side bets would be a problem.

CHAIRMAN ANGELIDES: Whether what?

WITNESS KOHLHAGEN: Whether or not side bets are bad.

VICE CHAIRMAN THOMAS: Either way?

WITNESS KOHLHAGEN: No, the way he stated the question. Right.

WITNESS KYLE: I want to make--

COMMISSIONER HENNESSEY: Please.

WITNESS KYLE: I want to make two points related to this.

The first is, the financial crisis was caused by the concentration of risks in levered financial institutions which, when they started suffering losses like Citigroup, or AIG, or Bear Stearns, or Lehman, had to de-lever their positions. They had to kind of shrink the size of their book.

So when big banks lose a lot of money, it is bad for the macro economy and it takes a long time to recover. That's where "depressions" as opposed to "recessions" come from. It is interesting to compare the financial crisis we have now, which is the type I just described, with the dot com bubble. In the dot com bubble there was a whole lot more risk being moved around. Trillions of dollars worth of stocks, which exposed trillions--

COMMISSIONER HENNESSEY: But it was dispersed.

WITNESS KYLE: --of dollars of risk on various people, but these dot com stocks were owned by dispersed investors, and largely not owned by banks. So when the dot com bubble collapsed, the losses from the collapse were enormous. But because the stocks were not held in levered portfolios, the spillovers through the banking--and particularly not held by banks--the spillovers into the economy resulted in a recession that we recovered from very quickly.

COMMISSIONER HENNESSEY: Okay, so sort of the tentative conclusions that I come to, setting aside Mr. Masters' concern about energy and food prices, is that, to say derivatives is too broad. To say over-the-counter derivatives as a cause is in fact too broad. That we should be looking at the subset of over-the-counter derivatives which are over-the-counter credit derivatives; and that specifically the actual underlying problems were not the over-the-counter credit default swaps themselves, it was the lack of capital requirements, and then the concentration of risk and the levering up that was done with those.

Comments from the two of you?

WITNESS KYLE: Yes, levering up in the banking system.

COMMISSIONER HENNESSEY: In the banking system, right.

WITNESS KYLE: And that would include the shadow banking.

COMMISSIONER HENNESSEY: Right. It was the fact basically--I simplify this as a bunch of people made the same bad bets on housing prices. They happened to do this through this complex mathematical instrument that a lot of people are scared of. But then what really happened was, then they also took those bad bets. They all concentrated them in large institutions, and then their counterparties weren't figuring out that they were exposed to counterparty risk.

WITNESS KOHLHAGEN: And add "too big to fail" as a problem. I mean, basically if these were little tiny community banks, then we wouldn't be here today.

COMMISSIONER HENNESSEY: Okay. Good.

One other thing is, just again trying to add some clarity here, the $58 trillion number that gets thrown around--and I know that you all are careful when you say $58 trillion in nominal exposure, but then the reality is that the net exposure is smaller.

I want to see if I can do an example here. Doug, I will sell you a trillion dollars of credit default swaps on General Electric. And then I want to buy a trillion dollars of credit default swaps from you on General Electric. Do we have a deal?

COMMISSIONER HOLTZ-EAKIN: Yes.

COMMISSIONER HENNESSEY: Okay. We have, as I understand it we have just increased the notional amount of-

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VICE CHAIRMAN THOMAS: Excuse me? Could I get the commission for this?

(Laughter.)

COMMISSIONER HENNESSEY: Absolutely. Just a couple basis points.

As I understand it, Doug and I have just increased the notional value of the over-the-counter derivatives market by $2 trillion, even though there is not in fact any real increase in risk that exists. Do I have that basically right, Mr. Kyle?

WITNESS KYLE: Absolutely right. And when the credit events occur that result in the credit default swaps paying off, they hold these auctions. And the auctions allow the net exposures, which would be zero in the case of your transaction because you're both long and short a trillion dollars, it kind of allows the net exposure to come to the market.

My understanding is that the experience is that a huge fraction of the notional exposure has been netted out by the time the contracts wind down, and maybe you are looking at one percent, or some fraction of one percent of the notional amounts that people throw around as representing true exposure.

COMMISSIONER HENNESSEY: Good. My time is expiring, but--

VICE CHAIRMAN THOMAS: Do you want more time?

COMMISSIONER HENNESSEY: Twenty seconds.

VICE CHAIRMAN THOMAS: Two minutes.

COMMISSIONER HENNESSEY: Twenty seconds.

VICE CHAIRMAN THOMAS: And we'll pay it in notional dollars.

CHAIRMAN ANGELIDES: Why don't you guys talk for a minute and forty about the twenty seconds.

(Laughter.)

COMMISSIONER HENNESSEY: One of the problems that I heard described in the OTC derivatives markets back in '05 and '06--Tim Geithner was worried about this when he was up at the New York Fed--was the question of resolving the CDS when a firm in fact failed.

All right, and he and the New York Fed were pushing hard saying, look, you guys have got to figure out how you are going to deal with all these overlapping commitments and counterparty risk.

I don't know if his push worked. I understand that it's in fact still not even complete, but he's generally getting good reviews of it, but as best I can tell that problem that they were concerned with did not actually rear its head in sort of disorderly resolution of the CDS. Right?

When Lehman failed, there were concerns about counterparty risk, and counterparty exposure to Lehman, but everybody who owed everybody else money actually basically ended up paying? No?

WITNESS GREENBERGER: No. I mean, what's confused is the CDS that guaranteed a Lehman default got netted out to $6 billion, and everybody went hurrah!. Look at the Lehman bankruptcy. Look at the lawsuit Lehman is bringing against one of its 6000 creditors, Nomura.

Nomura is debating not the credit default swap on Lehman's viability but Lehman entered into interest rate swaps, currency swaps, foreign exchange swaps, natural gas swaps, energy swaps, with Nomura. Nomura says because there's no market price they owe us a billion. Lehman is saying we owe $500 million; it's outrageous.

COMMISSIONER HENNESSEY: Okay. Good. Then let me try and be a little more precise.

I'm not suggesting that the resolution mechanisms are fixed or in fact working well. I guess what I'm suggesting is that I was hearing arguments several years ago that the difficulties in resolving these contracts was a systemic risk. And what I'm hearing is, there are still legal disputes about the appropriate valuation. Great. Lawyers and economists go figure this out. But you didn't have Lehman's default. Because I remember when, the day before Lehman was going under we were all saying, okay, are we worried about this as a triggering event? I think the same was true with Bear. And everyone was sort of pleasantly surprised that the default and the resolution of it didn't cause other institutions to suddenly fail.

WITNESS GREENBERGER: It didn't cause other institutions to suddenly fail because the American Taxpayer was the lender of last resort to the holes that those institutions had.

COMMISSIONER HENNESSEY: But not for Lehman.

WITNESS GREENBERGER: No, not for Lehman.

VICE CHAIRMAN THOMAS: Does the gentleman feel he needs an additional 20 seconds?

COMMISSIONER HENNESSEY: Yes, please.

(Laughter.)

COMMISSIONER HENNESSEY: To round out that two minutes.

WITNESS GREENBERGER: Not for Lehman, because Lehman is now going through a bankruptcy process that is disorderly. What Secretary Paulson, Chair Bernanke, New York Fed President Geithner said, is: Hey, we can't have this kind of bankruptcy institution by institution. We're just not going to let it happen.

Why did it not happen? Because we bailed those institutions out. They are thriving today because of that.

That's why there's no disruption. And by the way, the interconnectedness is not just CDS; the interconnectedness is interest rate swaps, currency swaps, foreign exchange swaps, energy swaps, agriculture swaps.

So when you say, oh, CDS caused the crisis, that may be true; but the interconnectedness crisis that led the American Taxpayer to have to bail everybody out, because as Michael Masters said, if these institutions failed there would have been cascading effect.

And while the derivatives market locked up immediately, Mr. Kohlhagen is right, it didn't lock up completely, why? Because the American Taxpayer threw trillions of dollars at it.

COMMISSIONER HENNESSEY: All right.

VICE CHAIRMAN THOMAS: Mr. Chairman, on my 20 seconds, do we all agree on the expert panel with that last statement by Dr. Greenberger?

WITNESS KOHLHAGEN: No, I don't.

CHAIRMAN ANGELIDES: What about the part where he agreed with you?

WITNESS KOHLHAGEN: I don't agree with that, either.

(Laughter.)

CHAIRMAN ANGELIDES: All right, any other comments?

VICE CHAIRMAN THOMAS: My concern is the cascading aspect. And if there's disagreement that it didn't have that cascading effect, then you've got to come up with another explanation.

WITNESS KOHLHAGEN: I agree that there was the fear of it, and I agree that, had we performed the experiment of let's see what happens if we let AIG go under, that we would have had systematic failure. I agree with that.

I do not agree with Lehman. I agree with Commissioner Hennessey that that's arguing among lawyers about a contract value.

VICE CHAIRMAN THOMAS: Okay.

WITNESS KYLE: May I?

VICE CHAIRMAN THOMAS: Yes.

WITNESS KYLE: I think that in addition to the OTC derivatives market we need to look at the repo market. And the repo market did not function very well after Lehman failed, especially in the UK as opposed to the U.S.

COMMISSIONER HENNESSEY: As a source of interconnectedness, you mean?

WITNESS KYLE: Yes, yes. The repo market is a huge source of interconnectedness because the various banks are borrowing and lending money from one another, and they're borrowing and lending securities from one another, and the same arguments about the value of derivatives contracts occur in arguing about the collateral value underlying the repo contracts.

WITNESS KOHLHAGEN: I absolutely agree with Mr. Kyle on that.

CHAIRMAN ANGELIDES: All right. Good. Thank you. Now just on--Mr. Vice Chair?

VICE CHAIRMAN THOMAS: I'm out of time, but that gets back to my function of Wall Street and all the banks. Was it bees in a beehive, or a praying mantis with their mate? And that I have not been able to figure out yet.

WITNESS KOHLHAGEN: It was praying mantis playing Texas Hold 'Em.

(Laughter.)

VICE CHAIRMAN THOMAS: There you go.

CHAIRMAN ANGELIDES: All right. On my time, some of my remaining time, I do want to ask one question before we go to senator Graham. And this is on the, I think the very good line of questioning that Mr. Hennessey pursued about side bets.

I think he put down some markers with respect to those side bets in terms of collateral, and honest, open market, but I do have a fundamental question.

Doesn't it also matter who is participating in the side bet market, and to what extent? I mean, at the end of the day, taking away theory, there were winners and losers. Some people say, look, it's a big zero sum game. But having actually done pretty well in math, the math is pretty simple here.

The losers, at least temporarily, and I think for decades to come, will have been the American Taxpayers who did step in to cover the side bets gone bad. And so shouldn't we also be concerned about who participates in side bets, and to what extent? Systemically important institutions? Should they be participating in the side bet market?

WITNESS KOHLHAGEN: I say yes. A well-run organization, a bank, a securities firm--and you can pursue this this afternoon with Goldman Sachs--basically at least used to look very, very carefully at their counterparty risk.

All of the organizations that they had--you call them side bets; I call them derivatives contracts--with, they looked very carefully and they managed that counterparty risk.

Now just a personal comment to Commissioner Born. Back in the '90s when you were advocating greater regulation of the derivatives market, and I was an executive in the derivatives market, I completely disagreed with you. I could not imagine the banks mismanaging this function. It was not imaginable to me. And I said that in public speeches, and I've said it since I retired in 2002 in public speeches, and I was wrong.

CHAIRMAN ANGELIDES: So you are dependent on their ability to manage--

WITNESS KOHLHAGEN: You're dependent--

CHAIRMAN ANGELIDES: --and to the extent that we're backstopping, that is relevant to participation in the side bet market?

WITNESS KOHLHAGEN: --as a Nation we are dependent on private sector firms to manage themselves well. And if they don't manage themselves well, they go out of business--

CHAIRMAN ANGELIDES: Or--or--

WITNESS KOHLHAGEN: --or if they're too big to fail, then we have a problem.

CHAIRMAN ANGELIDES: And I want to just pick up, because I think at the end of the line of questions you added, "don't forget too big to fail," and I didn't want that lost in the side bet discussion about what's proper, what's not, what's perhaps contributory to the crisis and what wasn't.

WITNESS KOHLHAGEN: As long as there are firms and trading exchanges in the future that are too big to fail, the Taxpayer is going to be on the hook for them.

CHAIRMAN ANGELIDES: Mr. Hennessey, why don't you go ahead and take a couple of minutes of time, which will come off our ledger, and then we're going to actually--I made a mistake. We're not going to Senator Graham, we're going to go to Mr. Wallison, who was the other member of the Working Group.

COMMISSIONER HENNESSEY: Just to follow up on this. If I mismanage my hardware store and it goes bankrupt, that's not a concern of policymakers. And I think, again the concern of policymakers with a large financial institution mismanaging their risk is, if that large financial institution is too big to fail.

And so I think it keeps coming back to policymakers' need, or perceived need for a bailout that then injects the policymakers into overseeing whether or not they were making stupid decisions with their risk management.

VICE CHAIRMAN THOMAS: But what I don't understand is, if in fact they were in that position and you have that large a responsibility, as a government you should be on top of it looking at it carefully, making sure that the management was appropriate because the downside bet is too great a risk.

COMMISSIONER HENNESSEY: Right. If you run a commercial bank, you're not allowed to bet your depositors' money on the world cup.

WITNESS KOHLHAGEN: If I could just add--

COMMISSIONER HENNESSEY: Like if the supervisors step in and say there are certain things you are not allowed to do.

WITNESS KOHLHAGEN: To Mr. Kyle's point--

COMMISSIONER HENNESSEY: That's because there's a public guarantee.

VICE CHAIRMAN THOMAS: Well especially with the referees at the World Cup.

(Laughter.)

WITNESS KOHLHAGEN: To Mr. Kyle's point, if the U.S. Government allows private-sector firms to make the money when they win and bails them out when they lose, the American people are going to pay a high price for that system.

VICE CHAIRMAN THOMAS: And all of them want to be in the same business.

CHAIRMAN ANGELIDES: All right. This is a very good discussion. Mr. Wallison, you're up.

COMMISSIONER WALLISON: Thank you very much, Mr. Chairman.

As I say in every one of these meetings, we are in the business of trying to find out what caused the financial crisis. So a lot of this stuff, talking about various ways that a particular institution like AIG may have missed the boat and made mistakes is not exactly the issue.

What we have to find out really is, systemically what was it about credit default swaps that caused problems here. And I don't think I've heard a lot.

If we talk about AIG just for a moment, AIG obviously made some bad bets. But on the other hand, so did many of the other institutions who were before us on exactly the same ground. And that is, Citibank kept a lot of super senior securities thinking that they were completely safe.

Now of course they lost. AIG lost for making the bet on the other side--that is, they protected these super senior securities. And the puzzling thing to me is that now we denounce AIG for making a mistake that was exactly the same as Citibank's. And so what we have to find out is whether there's really any difference between making bad loans and being involved in the CDS world.

I would like to start with you, Mr. Masters, and see if we can bring some clarity here. If there had been no subprime mortgages, would there have been a financial crisis?

WITNESS MASTERS: I don't know. I think that's the honest answer. I think that the subprime crisis was a different crisis than the derivatives crisis that I addressed.

COMMISSIONER WALLISON: Are you saying that even if all the mortgages were 20 percent down payment and made to people who could afford them, they were prime mortgages, the mere fact that credit default swaps existed as a way of people taking on exposure, or eliminating exposure, would have caused the financial crisis?

WITNESS MASTERS: The answer is, I think that the derivatives market was a necessary precondition to furthering a subprime credit crisis, if you will.

So I think without some crisis involved--

COMMISSIONER WALLISON: I think I can follow your thought, and you're saying that there must be some underlying problem for the CDS to have transmitted the risks or the losses? Is that what you're saying?

WITNESS MASTERS: Yes. I think that there had to be some other--

COMMISSIONER WALLISON: Okay. Now you said that the credit default swap market ground to a halt. I think there was some question about that by some of my colleagues, but I actually have some numbers here from Market Serve, which now publishes these numbers, and I want to read you the numbers for the credit default swap market from June of 2008 until December of 2008, so that it covers the period where Lehman failed and we believe the financial crisis began, and I think this was the period you were referring to.

In June--I'll leave out anything other than just the dimensions--251,000. In July, 284,000. In August, 188,000. In September, the month that we had the failure of Lehman, 315,000. October, 379,000. November, 305,000. December, 255,000.

So that doesn't sound to me--

VICE CHAIRMAN THOMAS: And that's the year 2008?

COMMISSIONER WALLISON: Sure. Yes. All of this was 2008. That doesn't sound to me as though a market has ground to a halt. It sounds to me as though it's continuing to function.

Now how do you explain that?

WITNESS MASTERS: Well I would say what I was really referring to in my testimony was the period from Lehman's failure to AIG's bailout, which was only a couple of days. And there were trades that happened. But to be more clear--

COMMISSIONER WALLISON: Okay--

WITNESS MASTERS: --there was a fear that everything would have stopped. And there were actions taken that wouldn't have been taken otherwise to unwind swaps from institutions--

COMMISSIONER WALLISON: So we're talking--I might just interrupt because my time is limited--so we're talking about a two-day period when it ground to a halt. And it was the two-day period that caused the systemic crisis? Is that what you're saying?

WITNESS MASTERS: Well it could have been much longer than two days had AIG collapsed. It could have gone on to this day. I mean, it's a situation that--

COMMISSIONER WALLISON: Well we actually don't know that. What we do know is that Lehman collapsed.

WITNESS MASTERS: Right.

COMMISSIONER WALLISON: And what we wanted to find out from that is what the interconnections that you were talking about actually caused.

Can you identify any institution that was caused to go into bankruptcy or otherwise to have a serious financial problem because it was interconnected with Lehman, other than thorough a loan but through a CDS? Do you have the name of such an institution?

WITNESS MASTERS: Well I would say AIG had, had significant counterparty risk with Lehman Brothers.

COMMISSIONER WALLISON: Actually, AIG's relation with Lehman turned out to be, in the end, $600 million.

WITNESS MASTERS: It depends on the round you're using. It depends on how you classify exposures.

COMMISSIONER WALLISON: Okay, but AIG was not seriously connected with Lehman.

WITNESS MASTERS: But AIG was connected with other folks, and if anybody had exposures on AIG with Lehman Brothers, suddenly--for instance, let's just say that you've made a bet with AIG, and you've got Lehman as your counterparty, and suddenly--or you made a bet on an AIG issue, on a credit instrument, and you've got Lehman as the counterparty--suddenly now you don't have that hedge anymore that you thought you had.

COMMISSIONER WALLISON: Right. But on the other hand, you know what a reference entity is of course. We haven't used the term "reference entity." But any of these bets are on a reference entity of some kind. That is, that's the party that has to default in order for anyone to be paid. Right?

So if the reference doesn't fail, the fact that AIG couldn't pay off, or the fact that Lehman couldn't pay off, isn't relevant, is it?

WITNESS MASTERS: I think that the issue, I mean you're sort of dancing around the issue. Had AIG failed, the discussion is different. So you're saying, hypothetically what would happen, and whatnot.

COMMISSIONER WALLISON: Excuse me, but someone else is talking hypothetically. You're suggesting that if AIG had failed that there would have been some kind of serious crisis. That's hypothetical, because we don't know.

WITNESS MASTERS: Well I think the Treasury Secretary felt like that at the time.

COMMISSIONER WALLISON: Right, the Treasury Secretary and others did. That is not evidence of anything except the fear that the Treasury Secretary felt at the time, or the Chairman of the Federal Reserve.

WITNESS MASTERS: Well it was a heck of a price to pay for the American public to spend the billions of dollars to bail out AIG, then.

COMMISSIONER WALLISON: Right. I agree, the--

WITNESS MASTERS: If what you're asserting is correct.

COMMISSIONER WALLISON: --the Taxpayers should be complaining about what the Treasury Secretary did, and the Chairman of the Federal Reserve, but let me go back to your point.

That is, that there was some loss as a result of the failure of Lehman Brothers. And I want you to identify what that loss was.

WITNESS MASTERS: Hedge funds around the world--and I've talked to them about this view--suddenly didn't know if their counterparty was good, if they were going to get paid.

COMMISSIONER WALLISON: Right.

WITNESS MASTERS: And that forced them to unwind exposures in many other instruments, to force a rapid de-leveraging, which caused a--certainly affected markets and prices around the world, which wouldn't have happened otherwise had Lehman not failed.

COMMISSIONER WALLISON: And who did they unwind these transactions with?

WITNESS MASTERS: They unwound them with many different brokers as they could.

COMMISSIONER WALLISON: Those are dealers, wouldn't you say?

WITNESS MASTERS: Right. Swaps dealers.

COMMISSIONER WALLISON: These are swaps dealers. And who are they?

WITNESS MASTERS: There are 20 different ones.

COMMISSIONER WALLISON: There are 26 or so, and probably many more, but the major ones are about 26. These were all the institutions that were thought to be in danger, right?

I mean, if you wanted to go in and buy or sell a swap, you had to deal with one of these institutions that you told us a little while ago were in trouble, and people didn't know whether they were safe or sound. Isn't that what you said?

WITNESS MASTERS: What I said was, that you had a situation where dealers, well counterparties were fearful.

COMMISSIONER WALLISON: Yes.

WITNESS MASTERS: And the fear of other dealers going out of business--

COMMISSIONER WALLISON: Right

WITNESS MASTERS: Even though they didn't actually go out of business--

COMMISSIONER WALLISON: Right.

WITNESS MASTERS: --and we don't know what would have happened, as I said, hypothetically. All right, let's just say we don't know what happened. There was a palpable fear that customers needed to unwind their bets with these various dealers, which they did.

That wasn't driven by a fundamental belief in the bet they were making. It was driven by a fear of counterparties eventually failing--

COMMISSIONER WALLISON: Okay--

WITNESS MASTERS: --and that's what I was really trying to say.

COMMISSIONER WALLISON: --but they did deal with the very people who you were suggesting were in some kind of trouble, right? I mean, you said people didn't know, and yet when they went to--when they had to unwind their transactions, their swaps, they had to deal with the people who were actually the ones who you said were now in questionable financial condition.

WITNESS MASTERS: Well I mean it's, it's sort of like, you know, you've got one going down, and you believe that others are going down. And in the interim, which is a short period of time, before AIG was saved, there are still people still standing. But that being said, your actions have changed as a counterparty because now you're unwinding bets that you wanted to have on, that you had on as a hedge and you thought were a part of your fiduciary responsibility. Now as a fiduciary you have to make the decision to unwind bets that had nothing to do with the bet you wanted to have on.

COMMISSIONER WALLISON: Let me read you something from Fitch Ratings, published in early 2009, about 2008. And it says, among other things: The CDS market has generally remained open throughout the crisis, particularly for indices and single-name CDS contracts, and this has enabled market participants to hedge or take on credit exposures.

This is in direct contrast to the near complete drying up of liquidity in the CDO market. So in fact what happened, isn't this true, that although run by the large banks throughout the World, not just U.S. banks but many all over the World, the CDS market continued to function perfectly well through this period?

I read you the numbers of transactions, and they remained just about the same, within the same general range, between June and December of 2008. So there wasn't any collapse of that market, as you suggested, was there? People were trying to unwind. And what you were saying is that for the two-day period between the time that Lehman failed and the time that AIG was rescued, for whatever reason it was rescued, there was some panic in the market? Is that what you're saying?

WITNESS MASTERS: I'm saying that there was panic in the market, and it caused institutional investors and other fiduciaries to do things that they would not have done otherwise because they were fearful of credit issues with regard to Lehman, AIG, and other swap counterparties.

COMMISSIONER WALLISON: Was there a domino effect after Lehman, as you suggested?

WITNESS MASTERS: There would have been had we not rescued AIG. There was a domino effect in the sense of it changed people's investment strategies to have to account for worrying about one's credit counterparties, when maybe one hadn't worried about that in the past.

COMMISSIONER WALLISON: Let me understand what AIG's rescue did. Did that mean that--do you think it meant that every other institution after AIG would be rescued?

WITNESS MASTERS: I think that the belief of the market was that, once AIG was rescued that that was it; that others would be rescued after that.

COMMISSIONER WALLISON: And were others rescued after that?

WITNESS MASTERS: It didn't seem like others needed to be.

COMMISSIONER WALLISON: Needed to be rescued, right. Okay, so what I'd just like to establish with you is the question of whether Lehman's failure resulted in any substantial loss to anyone else.

Do we have any data on that?

WITNESS MASTERS: We have the hundreds of billions of dollars that the Taxpayers spent. I mean, I would say that's quite a significant amount of data, in terms of the amount of dollars that they had to put up, when Lehman went down to bail out AIG. And the reason that--and as you will recall there was some question on whether or not AIG should have been bailed out by the Treasury. But the reason it ultimately--I believe they did it, was because of the interconnectedness of AIG and the derivatives contracts they had on with other folks.

And so the Taxpayer ended up with that direct loss.

COMMISSIONER WALLISON: Lehman was also interconnected, was it not?

WITNESS MASTERS: They were. And I think that started the change in behavior, if you will, from one to the other.

COMMISSIONER WALLISON: I think I've run out of time.

VICE CHAIRMAN THOMAS: Mr. Chairman, yield the Commissioner an addition two minutes.

COMMISSIONER WALLISON: I could use more than that, but I'll take two.

VICE CHAIRMAN THOMAS: Yield the gentleman an additional four minutes?

COMMISSIONER WALLISON: All right, we'll negotiate about that later, but that's fine. Thank you.

VICE CHAIRMAN THOMAS: Yield the gentleman an additional five minutes?

(Laughter.)

CHAIRMAN ANGELIDES: Are you playing the AIG to his Goldman?

VICE CHAIRMAN THOMAS: No--

(Laughter.)

VICE CHAIRMAN THOMAS: --I'm trying to satisfy him. Five minutes? Is that okay?

COMMISSIONER WALLISON: Yes, that's fine. Thank you very much.

So we're talking about what happened after Lehman. And you referred to it as a "domino effect." That others were going to fail after Lehman. But actually, Lehman was cleaned up, was it not, within five weeks with an exchange of funds among the various counterparties? Unless you can identify anyone other than AIG, I don't know that we're talking about any large effect of Lehman's failure.

I don't see the interconnections yet. And could you make that clear?

WITNESS MASTERS: You know, with AIG I mean it's sort of like saying, you know, other than the bullet, Mrs. Lincoln, how was your might at the theater? I mean, it is the issue.

COMMISSIONER WALLISON: Well there are outliers, of course, and AIG was an outlier. All of the references we hear today from this panel, and also from your panel, is about AIG. But what we ought to really be thinking about is whether there were other institutions.

AIG was actually a tremendous outlier because AIG took only one side of these transactions. So to establish policy on the basis of the failure by one kind of institution, one institution, which made a large, a huge mistake, would be a mistake, I think. We ought to be considering how others in this market behaved. But, please.

WITNESS MASTERS: Well I mean, again, there was significant fear from a wide diversity of market participants that the credit component of their counterparty swap agreement they would have a problem because of what had happened with Lehman. And especially they were worried what happened with other firms. So it was the fear of something happening that really seized up the market and made people change their behavior.

Had AIG gone down, then in my view it is very likely that we would have lost Goldman Sachs, we would have lost Morgan Stanley, and we would have probably lost other institutions as well.

COMMISSIONER WALLISON: Yes, Mr. Kyle?

WITNESS KYLE: Yes. So keep in mind that after Lehman failed we had the Reserve Fund, the money market fund, which suffered big losses because it held Lehman bonds. And when it broke the buck, it triggered a run on the entire money market fund industry.

So I would say that is a spillover from the failure of Lehman into the entire economy. And it resulted in the government essentially insuring the money market industry, bailing out the whole industry, and it resulted in the Fed kind of bailing out the commercial paper--

COMMISSIONER WALLISON: Well if we're going to talk about all those things, you can understand why the Reserve Fund kept those bad securities, and that is because Bear Stearns was bailed out. And they figured that everyone was going to be bailed out after Bear Stearns, so they were not going to have to suffer losses on those securities they were holding.

So it is not--we can't look at these things in isolation, which is the problem that we are all suffering here, is that we are looking at these instances in isolation as though they are not related.

The Reserve Fund lost money because it had assumed that its bad investments were going to be taken care of by the bailing out of Lehman the way Bear Stearns was bailed out. So once we bailed out Bear Stearns, we were in a different world. And that is one of the issues I think we have to understand.

WITNESS KYLE: I agree with that.

WITNESS GREENBERGER: Commissioner Wallison, may I comment on your--

COMMISSIONER WALLISON: Sure.

WITNESS GREENBERGER: First of all, in terms of your numbers, please look at the number of the overall value of credit default swaps. The swaps dealers after Lehman were running around--that's why I used the figure $35 trillion to $65 trillion--the swaps dealers were running around, and you can look at DTCC statistics, Bank of International Settlement Statistics, the overall notional value dropped from $65 trillion to $35 trillion.

Now can I tell you that for a fact? No. Because it's a--if I could finish--

COMMISSIONER WALLISON: One of the reasons--one of the reasons--excuse me, but these numbers are not worth discussing right now because there was compression taking place right around this time.

WITNESS GREENBERGER: That's my exact point.

COMMISSIONER WALLISON: Okay. So what is the point that you were trying to tell me about?

WITNESS GREENBERGER: That Mr. Masters was right, this market was freezing up. It dropped by half.

COMMISSIONER WALLISON: No, I was talking about the number of transactions.

WITNESS GREENBERGER: Yes, and I'm talking about the total value. You can have--I can buy a thousand peanuts for $1. That doesn't tell me the value of whether this market is going down.

COMMISSIONER WALLISON: Commissioner Hennessey made the valid point. And that was, if he and Commissioner Holtz-Eakin had bet, or had speculated between the two of them, that would have doubled the total amount of credit default swap notional amounts in the market.

WITNESS GREENBERGER: And it went down by half.

COMMISSIONER WALLISON: That is not a significant number. The significant number is the number of transactions.

CHAIRMAN ANGELIDES: Time. Thank you. Thank you, very much. I just knew this could go on for quite some time. Thank you very much.

Now, Senator Graham.

COMMISSIONER GRAHAM: Thank you--

CHAIRMAN ANGELIDES: Microphone, Senator.

COMMISSIONER GRAHAM: This has been a very instructive panel. I wanted to clear up one thing.

A few moments ago Mr. Greenberger had stated I think that the ripple effect of AIG was contained because the Taxpayers stepped up to those other affected parties and essentially made them at least partially whole so they could manage the consequences of AIG.

Then you were asked if you, Mr. Kohlhagen, if you agreed or disagreed, and you said you disagreed with Mr. Greenberger's analysis. What do you think would have happened if the Taxpayers had not stepped in to assist those institutions that were affected by AIG?

WITNESS KOHLHAGEN: If that was Mr. Greenberger's position, I agree with it. I either misunderstood--one of us misunderstood Mr. Greenberger's position in the question.

COMMISSIONER GRAHAM: Did I correctly state your position?

WITNESS GREENBERGER: Yes.

COMMISSIONER GRAHAM: And you agree with that?

WITNESS KOHLHAGEN: I personally believe had the government not stepped in to save AIGFP, we would have had a total disaster on our hands; yes.

COMMISSIONER GRAHAM: I am interested in this thing which has been defined as either "side bets," "naked credit default swaps," "synthetic CDOs," et cetera. What are the social values? What are the values to the American economy of these, what I call peripheral derivatives? That is, the ones that are a long way away from the farmer selling his field of corn?

WITNESS GREENBERGER: It has the same value to the economy that Las Vegas and Atlantic City provide.

COMMISSIONER GRAHAM: Well then maybe--I'm not going to ask you to speculate on the social value of New Jersey or Nevada in terms of their contributions, but is that to say that you don't think they have a social value?

WITNESS GREENBERGER: It's not only that they don't have a social value. I know there's this idea that it sends signals to the market, and I will deal with that in a question. But, no, I don't think they have social value.

If people had not been able to bet--leave aside insuring your risk--nothing would have happened.

Now Mr. Kohlhagen or Mr. Kyle said, oh, this sends signals to the market. People now knew that these things were dangerous. Well, there were real credit default swaps that sent signals to the market. And you know Warren Buffett once said: The social value of the real credit default swaps is insurance on the bond.

Warren Buffett once said, if you feel you need insurance on a bond, don't buy the bond. We went through-- the naked credit default swaps were developed in the 1990s. We went through the founding of this Republic to the beginning of the 1990s without credit default swaps or naked credit default swaps. Senator Graham, you were in public office probably a lot during that period. I'm sure there wasn't one Florida citizen who came to you and said: Where the heck are all those credit default swaps I need?

They are now arguably insurance, but if it is insurance, Senator Graham, it should be treated like insurance. You should have all the protections that insurance policies provide.

On the naked, it's the mere taking of a bet. And if Mr. Dinallo is right that 3 to 4 times the bets were made as the real risk, the American Taxpayer was the lender of last resort to a casino, worse than a casino because Las Vegas would have made sure the casino had capital. Here there was no capital backing the bets.

COMMISSIONER GRAHAM: Does anyone want to defend the synthetic CDOs, et cetera, in terms of their social value? Yes, Mr. Kohlhagen?

WITNESS KOHLHAGEN: I now do officially disagree with Mr. Greenberger.

(Laughter.)

WITNESS KOHLHAGEN: And he misquoted me. I never said anything about a signal to the markets.

The derivatives--by the way, the Republic lasted without the Internet for that same period of time, and I don't think we're arguing whether or not it provides any value.

WITNESS GREENBERGER: The Taxpayer didn't have to bail out the Internet.

WITNESS KOHLHAGEN: Not yet. Every--

COMMISSIONER GRAHAM: Wait. Could you just state what do you think is the social value that warrants these transactions being treated as securities, as opposed to I think what Mr. Greenberger would recommend, that they be treated like craps, or the roulette wheel in Las Vegas?

WITNESS KOHLHAGEN: I interpreted your question more broadly to mean all derivatives. Are you only--

COMMISSIONER GRAHAM: No, I'm speaking of the synthetic CDOs. What I call the "peripheral derivatives."

WITNESS KOHLHAGEN: If somebody has an exposure to General Motors, or has an exposure to IBM, or has an exposure to a supplier, has an exposure to assets, it provides a method for them to hedge those risks. And that is an extraordinarily valuable economic and financial service.

COMMISSIONER GRAHAM: Can't they do that by buying instruments that actually are on the actual indicators of ownership of General Motors, as opposed to buying a synthetic?

WITNESS KOHLHAGEN: Not as efficiently, and not as quickly and easily. By the way, Warren Buffett--I'm a big fan of Warren Buffet, as we all are--he has sold billions and billions of equity derivatives. Just for the record.

WITNESS GREENBERGER: He also sold Inray Insurance because he couldn't figure out what the derivatives meant, which is why he said they were weapons of mass destruction.

COMMISSIONER GRAHAM: Mr. Kyle, did you have a social value for--

VICE CHAIRMAN THOMAS: Would the gentleman yield for just a moment? It is going to get very difficult to carry out a continued discussion if you guys decide to take over the time and talk to each other, versus allowing us to play our role and acknowledge folks. Okay?

COMMISSIONER GRAHAM: Mr. Kyle?

WITNESS KYLE: Yes. I think naked CDS bets do play a valuable role. And the valuable role they play is to provide signals to people who would buy bonds, or who would sell protection, that they may be paying too much.

I heard several of the other people here say that if we had had CDS trading on organized exchanges and the market had been generating price signals, then AIG's senior management would have seen what AIG's Financial Products Group was doing, because the price signals they would have gotten from the organized exchanges would have indicated that there was some danger here, and maybe these assets were very risky.

And I agree with what the other people said. But the mechanism by which the senior management at AIG would have learned that would have been people going in and taking short positions on the products that AIG was betting the other direction on. And those short positions would have depressed the price of those products and made people think, well, maybe they're not AAA. Maybe they're not safe. A lot of people out there think they're going to default. A lot of people out there are willing to bet that they're going to default, including Mr. Paulson.

So this notion that moving trading to central exchanges, and having transparent prices sends valuable signals to the market to protect relatively unsophisticated investors relies upon the ability of speculators to take short position, and in particular people like Mr. Paulson to take naked positions in the CDS market.

COMMISSIONER GRAHAM: Mr. Masters, do you think--

CHAIRMAN ANGELIDES: Senator Graham, would you like a couple of extra minutes?

COMMISSIONER GRAHAM: Yes, please.

CHAIRMAN ANGELIDES: Okay. And then meanwhile, press, I am going to ask you in the back--Press! Cameras! Sir! Folks, I am going to ask you to kind of just wait. You will have your opportunity to take photos of other witnesses. So I don't want to distract this important proceeding, if you would please refrain right now. Thank you.

COMMISSIONER GRAHAM: Mr. Masters, what do you think about the question of is there social utility in these peripheral derivatives such as synthetic CDOs?

WITNESS MASTERS: I think it depends on what the derivatives are. With regard to synthetic CDOs, I don't personally see a lot of use for them. Just in terms of an overall, it sort of begs the question. I mean, you know, there's--not all financial innovation, which a synthetic CDO is a form of financial innovation, is good. And I've talked about this in past testimonies.

But, you know, Ford had the Edsel, and in this case I think that synthetic CDOs really with regard to the ultimate destruction, that they were part and parcel of with regard to our economic system, in hindsight they certainly don't seem to have a lot of benefit.

COMMISSIONER GRAHAM: I'm going to ask a question, and I would like a one word 'yes' or 'no' answer from each member of the panel.

We were told that in the year 2000 as part of the Commodities Reform Act there was a prohibition on placing these types of instruments through a gaming commission, such as the Nevada Gaming Commission. It's my understanding from a recent conversation that actually the current law in Nevada would authorize these type of items to be a subject of gaming, but for the federal prohibition.

Should the federal prohibition on placing these matters on a regulated gaming system be repealed?

WITNESS GREENBERGER: Yes.

WITNESS KOHLHAGEN: I'm sorry, they should not be allowed to be on those exchanges.

WITNESS KYLE: I think that derivatives should be traded, CDS should be traded on organized derivatives exchanges, and trading them in Las Vegas for entertainment value is somewhat unnecessary.

COMMISSIONER GRAHAM: Mr. Masters?

WITNESS MASTERS: I'm just going to respond directly to the question: Yes.

COMMISSIONER GRAHAM: Thank you, Mr. Chairman.

CHAIRMAN ANGELIDES: Thank you, Senator Graham. Mr. Holtz-Eakin--oh, I'm sorry, I always try to alternate. While we're a bipartisan Commission, I try to alternate folks. So I will make sure Mr. Holtz-Eakin goes last next time.

COMMISSIONER HOLTZ-EAKIN: Thank you, Mr. Chairman. It's my first positive contribution to this economy in years.

Thank you, gentlemen. This has been a very useful discussion. I think we have all benefitted greatly from it. At this point I don't think there are some enormous issues left to resolve, so let me just go back and pick up a couple of things.

First, Professor Kyle, it was striking to me that in your opening remarks you immediately went to the notion of shifting risk, and in particular shifting risk to Taxpayers.

In light of the discussion since, can you just be real clear about how you view the time line of that? Do you believe that there was an expectation of shifting losses to taxpayers before Bear Stearns? Before Lehman? I mean--or was this a pre--this is a big issue for this Commission, sort of the notion of too-big-to-fail, expectations, moral hazard. So would you walk through that carefully for me?

WITNESS KYLE: I think there was. And here is one of the reasons I think so.

Go inside Bear Stearns. They are taking bets basically that housing prices are going to keep going up because they have loaded up on mortgage securities. In some sense they've got a lot of exposure to the credit risk on mortgages.

So how carefully do you think they modeled the credit risk associated with their exposure to mortgage-backed securities? Keeping in mind that if the housing market melted down, Bear Stearns did know full well that it would be out of business.

And the answer to that question is that when they applied to be a CSE firm, regulated by the SEC, they had these scenarios that were essentially melt-down in the Alt A market, or subprime market, and a melt-down in the prime market, but they didn't have these scenarios implemented as part of their risk management. In other words, they looked at the bad events that they were insuring against and simply ignored them.

I think if they were not risk-shifting, they would have engaged in a very careful analysis of what those risks were, even if it's just a one percent, or one-tenth of a percent probability, and done a really good job of evaluating the credit risks on the bets that they were taking.

But the fact that they kind of didn't do it and didn't do it in front of the open eyes of the SEC suggests to me that what was going on was risk-shifting.

COMMISSIONER HOLTZ-EAKIN: And just to be real clear. There is one view that says that systematically markets failed to price risk effectively during this period, both internal markets, risk-management systems inside firms, formal markets. That's different than assessing those risks and expecting the government to step in and absorb the losses.

You believe it is the latter and not the former?

WITNESS KYLE: I believe that they expected the government to step in and absorb the risks in the event that they failed, but the evidence for that is not that they went out and said we might fail, because they're not going to do that. The evidence for that is that internally they didn't carry on the rigorous intellectual debate about what's going to happen if these bad events occur because internally they effectively realized that it didn't matter what happened when those bad events occurred; it's not their money they're playing with, it's Taxpayer money that's at stake there.

COMMISSIONER HOLTZ-EAKIN: Thank you.

Mr. Masters, you made the point that CDS in particular created systemic risk, and when you described that what I heard you say was that it produced in the moment of panic a desire to unwind positions, particularly those of the counterparties.

Is there anything special about CDS versus the repo market, corporate lending, asset-backed commercial paper, and other places where we saw a financial market interconnectedness, versus the CDS. Is there anything special in that regard?

WITNESS MASTERS: And just to be clear, I think I was talking about unregulated derivatives en mass, not just CDS. I mean, CDS is a form of derivative, but I was talking about overall derivatives.

COMMISSIONER HOLTZ-EAKIN: But the language you used was not about contractual relations that produced an interconnectedness. It was about the fact that financial markets are interlinked and you can always have externalities from fire sales. Is there anything special in these unregulated derivatives in that regard?

WITNESS MASTERS: Well I think in the case of unregulated derivatives, the problem was that without a central clearing regime there was an unknown element that was difficult to price. And that was what one was trying to price was the positions that another firm, that happened to be your counterparty, had on with other counterparties. And whether or not those counterparties would pay off with other counterparties.

And so it was a question of if this counterparty doesn't pay off that counterparty, then maybe my counterparty may not pay off with me. And so this unknown, this fear of are counterparties good or not, which suddenly appeared, in my view really after Lehman Brothers, was, you know, part and parcel for the change in behavior from institutional investors and counterparties subsequently to Lehman.

COMMISSIONER HOLTZ-EAKIN: And how was that different from just fear of the credit quality of your counterparties during fire sale of assets in general?

WITNESS MASTERS: I think it's different because if you have a specific--you know, let's say you're worried about MBS and you have a credit counterparty, and you're worried about their position. Then you could theoretically go out and buy CDS with someone else on that counterparty and say, okay, even if they go down and I don't get paid off my bets from them, I've got CDS on with someone else and they'll take care of that because I'm making the bet that I get paid if they go down. And so I've hedged myself.

But in the sense of if everyone suddenly could go down because we're all interconnected and you lose someone that has enough concentration and enough diversity in terms of interconnectedness between various firms, then suddenly the CDS that I bought on that firm that I was worried about, it may not be good and I lose my hedge. And that's what sort of creates the fear.

COMMISSIONER HOLTZ-EAKIN: Okay. Let me try to clean up one more thing with Mr. Greenberger.

I wrote this down as you said it. You said if there was no naked CDS, then nothing would have happened. So can you clarify what you mean by that?

WITNESS GREENBERGER: Well I would like to clarify it. What I mean is this: The naked CDS made every default three or four times as serious as it was. That is to say, naked CDS is essentially somebody was betting, made the perfectly rational bet by the way, that people who didn't have good credit wouldn't pay their mortgages.

So people wanted to--they didn't want to be exposed to the mortgage, because that's a risk. They didn't want to get involved in the market. All they wanted to do was play the very best kind of Fantasy Baseball.

After all, in Fantasy Baseball you have to take your turn to pick your player. Mr. Paulson didn't take turns. He picked the very poorest players and bet they wouldn't make the Major Leagues. And so when those things fail, when those underlying mortgages don't get paid, Mr. Paulson makes his $1 billion. He never invested it in the market at all. He's just at a casino, like betting on the

Yankees beating the Red Sox.

VICE CHAIRMAN THOMAS: Mr. Chairman, yield the gentleman an additional two minutes.

COMMISSIONER HOLTZ-EAKIN: Two minutes. Mr. Hennessey and I engaged in a naked CDS of exactly this kind of type, and what is the downside risk to the economy for us having done that?

WITNESS GREENBERGER: It depends what you're betting on. If you were betting on people would--

COMMISSIONER HOLTZ-EAKIN: I'm betting on Peter's mortgage.

WITNESS GREENBERGER: Well that's a risky bet--only kidding, Commissioner Wallison. I mean, look, it's hard to say if you and Mr. Hennessey--what we have here is a six hundred--well, for credit default swaps a minimum $35 trillion market. A lot of that was devoted--

COMMISSIONER HOLTZ-EAKIN: And again we've established that those numbers have no particular meaning.

WITNESS GREENBERGER: But, look, the fear of those numbers. We went to War in Iraq--

COMMISSIONER HOLTZ-EAKIN: Fear--

WITNESS GREENBERGER: Yeah, we went to War in Iraq because we feared weapons of mass destruction. There were no weapons of mass destruction. You cannot say the War in Iraq has nothing to do with weapons of mass destruction.

COMMISSIONER HOLTZ-EAKIN: This is a Commission about the financial crisis, not the War in Iraq, sir.

WITNESS GREENBERGER: And what I'm telling you is, if you don't believe in figures--and I think there's a basis for your skepticism, because it's a private, bilateral, opaque market, people were afraid that this market was so huge--we know from the Paulson bet that a billion dollars was bet on people not paying their mortgages.

That means when those mortgages weren't paid, not only did the lenders, or the MBS, or the CDO have a commitment to make, but ACA Royal Bank of Scotland had a commitment to make. So the British, for example, gave $16 billion to the Royal Bank of Scotland so it could pay Mr. Paulson. That had real impact on the economy. It is filling the hole of three times the number of bets as mortgages that I believe caused this to be a systemic crisis.

COMMISSIONER HOLTZ-EAKIN: There are centuries of episodes of fear in financial markets that have nothing to do with naked credit default swaps, and fear in highly levered institutions of the financial type will always have some downsides. So I think we need to distinguish between fear and this particular contractual arrangement.

And the point I was trying to get some clarity about is, in what circumstances these contractual arrangements actually generated the downside. It seemed to me that an earlier discussion focused on concentrations in large institutions that are or are perceived to be too big to fail, inadequacy of capital behind them in those institutions, not in the contracts themselves.

WITNESS GREENBERGER: Absolutely. It's the inadequate--

COMMISSIONER HOLTZ-EAKIN: Mr. Chairman, 36 seconds?

VICE CHAIRMAN THOMAS: Do you want anyone else to respond?

CHAIRMAN ANGELIDES: Why don't you just add two minutes, Mr. Vice Chairman.

VICE CHAIRMAN THOMAS: Unless you want to continue the dialogue, it's your time to control as you wish.

COMMISSIONER HOLTZ-EAKIN: I would like you to finish briefly, and then we'll hear from Mr. Kohlhagen.

WITNESS GREENBERGER: Absolutely it is the inadequacy of the capital that caused the problem here.

COMMISSIONER HOLTZ-EAKIN: Not the contracts?

WITNESS GREENBERGER: Not the contract. If the contract had been capitalized--

COMMISSIONER HOLTZ-EAKIN: If I could hear from Mr. Kohlhagen on my time.

WITNESS GREENBERGER: --the Taxpayer wouldn't of had to bail these people out.

WITNESS KOHLHAGEN: Just quickly, on your question for Mr. Masters of how it was different from normal counterparty measure, I absolutely disagree with Mr. Masters. It's exactly the same as the daily counterparty risk management.

COMMISSIONER HOLTZ-EAKIN: I yield back.

VICE CHAIRMAN THOMAS: Mr. Chairman, he yields back.

CHAIRMAN ANGELIDES: All right, thank you very much. Mr. Georgiou, my fellow Greek-American Democrat who feels he is being discriminated against.

COMMISSIONER GEORGIOU: Yes, thank you very much, Mr. Chairman.

I think fear is not necessarily a bad thing. I guess to follow on Commissioner Hennessey's point, as a former math major whose high school math skills qualified me for an academic scholarship that enabled me to afford to go to college, not only do I not think math is evil, I am one of the few people in 2010 who actually loves math.

And I guess my feeling about it is that derivatives--what we're talking about here, and in particular the credit default swaps, the synthetic CDOs, and a variety of other instruments, are simply another manifestation of the current structural problem in the financial services industry that has resulted in the victimization of the real economy and caused such enormous consequences, and devastating consequences, to the Taxpayers and so forth.

The problem is not mathematical models, per se, or the creation of financial instruments per se. The problem is that the economists building the models, and the kids pricing these instruments, to use Mr. Kohlhagen's term, bear no consequences for their failure.

Their actions are completely divorced from their responsibilities and consequences. These enormous fees were earned by the creation of all these instruments by all of these players at every stage of the process, and none of them bore consequence for their failure.

Now why was that? There was no capital in the game. Fees were earned. Revenues were booked by the entities that created them, and metrics were reached in terms of bonuses and so forth on the basis of these revenues--without consequence to the ultimate failure of the instruments, and the consequences that occurred to the investors who bought them.

So the problem it seems to me is the connection of some degree of responsibility. And I have been harping on this, hearing after hearing of having more skin in the game, of being required to eat your own cooking. These kids, the reason why they created all of this stuff was because they made money at it at the end of the day, and they never lost any money regardless of what happened.

You know, one of the examples I guess I would point out to you is there is a chart here that is going to come into the record here. We are going to mark it chart number two. It is the multiplication that occurs just in Goldman Sach's synthetic CDOs.

You know, synthetic CDOs, first of all you take the mortgage-backed securities and you slice and dice them up, and then you take the BBB tranches, which are the lowest rated tranches above equity. Then you take those, and you slice them up into CDOs. Then you create synthetic CDOs. And in this chart you can see that there were 3,408 synthetic and partially synthetic CDOs created by Goldman. And the underlying asset-backed securities were replicated 2,537 times--one deal replication; 610 times the same security was used in 2 deals; 170 times in 3 deals; and so forth. In one instance the same underlying mortgage was in 9 different deals.

Now why would you create all those deals unless you could make money from creating them and not have any consequences to their losses?

So I guess I would like to ask each of you whether, you know, whether you believe that the lack of capitalization in particular--I know some of you have said it already--and the lack of consequences; we've discovered that there were never any clawbacks of any bonuses earned by anybody as a result of the failure of these instruments, and having the government bail out the institution rather than people bear the bankruptcy consequences of normal capitalism contributed to the crisis?

Mr. Kohlhagen?

WITNESS KOHLHAGEN: I was hoping I could go fourth. I think it is an enabler. I think that basically--let me put it in sort of a praying mantis kind of analogy.

I think what happened is, as I stated in my testimony, the cause of all of this was the U.S. Government trying to bring housing, in a commendable way, to the next group of American citizens, and noncitizens, for that matter.

But in order for it to happen, in order for it to happen in a way that it did, the private sector had to enable it. It wasn't just government guarantees and government subsidies. It had to be enabled somehow.

So ultimately it came to Wall Street. And Wall Street ultimately said, in the early part of the last decade, wait a minute. What you want us to do is to find a way for the market to lend money to people who shouldn't be borrowing money?

And the government in effect said, yes, that's what we want you to do. And Wall Street said, okay, watch this.

COMMISSIONER GEORGIOU: Right. Wait, okay, I--

WITNESS KOHLHAGEN: So basically--

COMMISSIONER GEORGIOU: I could dispute your characterization whether the government encouraged it, or whether the necessity of government encouragement--whether there was any such necessity, whether the market just did it on its own because, after all, at the end of the day, you know, the financial services industry is there to make a profit. There's nothing necessarily wrong with that.

The problem it seems to me is divorcing the ultimate consequences and shifting to the Taxpayers and others the burdens of the losses.

WITNESS KOHLHAGEN: Left out of all of this, and I think it's implicit in what you're saying, is that what got divorced was the lenders being able to lend money but not take the risk, to find a way to pass the risk on to others who didn't want--

COMMISSIONER GEORGIOU: Lenders, securitizers, credit rating agencies, auditors, I mean the list goes on and on of people who were enriched, who received revenues from creating the system.

WITNESS KOHLHAGEN: Originally you can go back to the 1970s, the operating model was firms lent money to corporations and people. And they took the risk. So they had skin in the game.

COMMISSIONER GEORGIOU: Right.

WITNESS KOHLHAGEN: What happened, what changed from the '70s to the early part of the last decade was they found a way to have no skin in the game.

COMMISSIONER GEORGIOU: Right. And so--and to me, it seems to me that is an overriding theme that we've seen in our securitization analysis, and the credit rating analysis, the housing mortgage--you know, the mortgage finance area, in all these elements.

Now I guess, Professor Kyle, you wanted to respond? It looked to me like you had a thought.

WITNESS KYLE: Well I don't like the idea of Taxpayer money being used to subsidize the losses of other people's bad decisions. But in addition to looking at executive compensation and the salary structure of firms on Wall Street, you have to look at who was really bailed out. And for the most part it was the debt-holders that were bailed out.

So I think what we need is a mechanism to have some discipline imposed on investors in debt securities, and in particular debt securities issued by leveraged financial institutions like banks. And one such possibility would be contingent capital, or a quick resolution mechanism which we might be getting that would essentially convert these debt securities into equity when the underlying institutions get into trouble and therefore force the underlying institution's security owners to pay for the bad decisions of the firms that they invest in.

CHAIRMAN ANGELIDES: Three more minutes for Mr. Georgiou?

COMMISSIONER GEORGIOU: If I could. Thank you very much, Mr. Chairman.

I want to go back to the discussion that occurred here between Commissioner Wallison and Mr. Masters about what would of happened if one of these firms failed.

We know that Bear was saved through a shotgun merger, and Lehman was not. But Merrill was. And one of our previous witnesses, Mr. Buffett, seemed to suggest that that was key that Merrill was saved, as well as AIG, because there were so many--the enormity of their counterparty exposure dwarfed a number of the other entities, and so that was required.

Do you have a view, Mr. Masters, of what would have occurred had they not--had AIG and Merrill not been effectively saved?

WITNESS MASTERS: Yes. I mean I was thinking about the term "saved" in a different manner. In other words, I think it was more of sort of a behind-the-scenes shotgun marriage.

COMMISSIONER GEORGIOU: Well, but it was a guarantee. There was huge Taxpayer involvement in the Bear marriage and in the Merrill Lynch marriage, in that a number of those risky securities that were on the books of those entities were guaranteed by the Fed as part of the transaction. Otherwise, the purchasers wouldn't have gone through them.

WITNESS MASTERS: Yes, I think it speaks to the scope of the problem. I think that regulators felt like they had to pull out all the stops, if you will, to sort of save the system at that point in time.

COMMISSIONER GEORGIOU: And I guess, you know, my fellow Commissioner Wallison, I take it, would assume that had we not saved Bear it would have triggered more responsibility in the system. But I guess one might argue that at that point it was too late for everybody to unwind their positions in a relatively short period of time because they had amassed these enormous positions, uncapitalized and unhedged. I mean that seems to me to be my fear.

WITNESS MASTERS: I think that's absolutely right.

COMMISSIONER GEORGIOU: Professor Grasp--

WITNESS GREENBERGER: Greenberger.

COMMISSIONER GEORGIOU: Greenberger, I'm sorry.

WITNESS GREENBERGER: I just wanted to say that you asked the question: Is capitalization a problem here? It was a very big problem. The American Taxpayer ended up capitalizing this.

I thought it was interesting, your point that one tranche in a CDO was used nine times in synthetic CDOs. That means every time a default occurred in the real CDO, there was nine times the betting on that.

COMMISSIONER GEORGIOU: Right.

WITNESS GREENBERGER: That's my point. The betting aggravated the problem.

COMMISSIONER GEORGIOU: Well, and--

WITNESS GREENBERGER: And the final point I would make is, you, as I think the entire American public wants to know where is the accountability here? And I sympathize with you on that. Madison said: If men were angels, we wouldn't need government. We can't keep saying, oh, there should have been more risk management. There should have been more this. That's what regulation in this context, market regulation, is about.

In the securities market you can't do these things. It's not a matter of risk management. The SEC governs the market. In the regulated futures market, the

CFTC governs the market. In 2000, a decision was made that there would be no clearing and no exchange trading--

COMMISSIONER GEORGIOU: Right. Understood. But--

CHAIRMAN ANGELIDES: Byron, we are over time and we are running behind, so I am going to--we need to wrap up right now, except two final minutes to Ms. Born as one of the Working Group members, and then the Vice Chair has a question, and then we will adjourn for lunch.

COMMISSIONER BORN: Thank you. I just wanted to follow up a little bit also on Commissioner Wallison's discussions with Mr. Masters.

First, just confirm, Mr. Masters, that when you are talking about the interconnectivity through the market, through over-the-counter derivatives that leads to potential systemic risk, you are talking about all over-the-counter derivatives, not just credit default swaps? Is that correct?

WITNESS MASTERS: That's right.

COMMISSIONER BORN: And in your discussion you were discussing Lehman Brothers failure, a freeze-up for a couple of days in the over-the-counter derivatives market, and the rescue of AIG with a government commitment of $180 billion of rescue money. And also it has been pointed out that one big money market fund went down, and so the government had to step in to insure money market accounts.

But also, didn't the government immediately at this time seek $700 billion in TARP funds? Didn't it open the Discount Window to the investment banks who were the big over-the-counter derivatives dealers? Didn't our largest over-the-counter derivatives dealers, Merrill Lynch, Morgan Stanley, JPMorgan, Bank of America, Citigroup, Goldman Sachs, all get tens or hundreds of billions of dollars of direct and indirect support from the government in order to contain the contagion that would have occurred?

CHAIRMAN ANGELIDES: And by the way, I'm going to ask you to go ahead and answer. The time is up, but why don't you go ahead and give the answer.

WITNESS MASTERS: I think all those were obviously part and parcel of the bailout. And, you know, one final point I would say, just in terms of transactions in derivatives, even though you could have had more transactions between the period of Lehman and AIG, at that moment in time, the reality is because of the shrinkage of notional we know that those were all closing transactions. So it was people getting out that did add consequences on other folks. So I just wanted to make that final point.

COMMISSIONER BORN: Thank you.

CHAIRMAN ANGELIDES: All right. Vice Chairman Thomas.

VICE CHAIRMAN THOMAS: Thank you. I am trying to structure a take-away. You've been an excellent panel, and I want to see if I can say that after I go through this routine as well.

I want to try to run down a list of--we're here to try to find the causes of the financial crisis. So I am going to run down a list of items that I heard discussed here, or that we have talked about. And then what I would like to do is to turn to each of you and, if there is something I did not mention that you would, give me like the top three, or the top five from your position.

One, I want to see the degree of diversity or commonality in terms of what you would choose.

We talked about U.S. Government support of the housing market. The lack of proper regulation of the financial markets. International capital flows we've been concerned about. Also, the Federal Reserve interest rate policy, the loose credit standards. Firm level risk management failures. Lack of transparency about who was exposed to the mortgage market. System-wide leverage. Dependence on short-term funding. Financial market interconnections. The too-big-to-fail argument. Rating agencies, and all that entails. Corporate compensation models in terms of their inducement of certain behaviors. What happened where the rubber meets the road in terms of opportunities on creating these mortgages by real estate and other folk, leading to a degree of fraud.

Let's start from the left and go to the right. Three to five, and kind of rank them, if you would, if it's possible.

CHAIRMAN ANGELIDES: And go fast.

WITNESS GREENBERGER: My view is, if the over-the-counter derivative market had required capital and had been transparent, the rest of the list would have been irrelevant.

WITNESS KOHLHAGEN: Number one, the U.S. Government policy to expand the homeowner market. That's the cause, to my mind. The enablers, the major enablers were the Fed's monetary policy, federal regulation liberalization, forbearance, and the absolute irresponsibility of the rating agencies.

WITNESS KYLE: I think risk shifting is number one. Irrational exuberance is number two. And government mandates for home ownership probably number three, but derivatives, OTC derivatives pretty far down the list.

WITNESS MASTERS: I would say that over-the-counter derivatives had a very significant and key role in transferring credit crisis into a broad scope financial crisis.

VICE CHAIRMAN THOMAS: So you have a mono-cause?

WITNESS MASTERS: A what?

VICE CHAIRMAN THOMAS: You have a single cause? That was the cause of the financial crisis?

WITNESS MASTERS: Right. Well, a dispersant.

VICE CHAIRMAN THOMAS: Okay. Thank you.

CHAIRMAN ANGELIDES: All right, gentlemen. Thank you very much for your time and your testimony. We appreciate it very much.

We are now going to take a break and recommence at 12:25 in this room.

(Whereupon, at 12:02 p.m., the meeting was recessed, to reconvene at 12:31 p.m., this same day.)

AFTERNOON SESSION

(12:31 p.m.)

CHAIRMAN ANGELIDES: The meeting of the Financial Crisis Inquiry Commission will come back to order. We will now start our second session of the day on AIG and Derivatives.

I want to welcome our witnesses. We will begin by doing what we customarily do, which is we will ask all three of you gentlemen to please stand and be sworn.

Please raise your right hand. Do you solemnly swear or affirm under penalty of perjury that the testimony you are about to provide the Commission will be the truth, the whole truth, and nothing but the truth, to the best of your knowledge?

MR. SULLIVAN: I do.

MR. LEWIS: I do.

MR. CASSANO: I do.

(Witnesses sworn.)

CHAIRMAN ANGELIDES: Thank you very much.

Gentlemen, we thank you for submitting your written testimony which the Commissioners have had a chance to review. We would like to begin today's session by asking that each of you provide an oral statement of no more than five minutes.

There is a device at the table which will signal yellow when there's one minute to go, and red when your time is up. And so we would ask you to adhere to that five minutes, and that will allow us then significant time to ask you questions on the matters before this panel.

So with no further ado, I am going to go--I think this time, I always vary the order--I am going to start with you, Mr. Sullivan, then go to Mr. Lewis, and then Mr. Cassano. We will go in that order. So if you would begin your statement, that would be terrific.

WITNESS SULLIVAN: Thank you, sir. Good afternoon.

Chairman Angelides, Vice Chairman Thomas, and Members of the Commission:

My name is Martin Sullivan. I was President and Chief Executive Officer of AIG from March of 2005 through June of 2008. My career at AIG spanned almost four decades.

I started work at age 17 in the accounts department of AIU London Ltd., which was the UK-based non-life subsidiary of AIG. Thereafter I took on increasing responsibility for the property underwriting side of the business.

In 1996 I moved to New York, and I have lived there ever since. I became Chief Operating Officer and later President of AIU. In 2002, I became Co-Chief Operating Officer of AIG.

As Co-CLO, my primary oversight responsibilities continued to be in the non-life area of AIG's insurance business. In March 2005, I was asked by the Board to become President and Chief Executive Officer of AIG. At the time I assumed this position, the company was in crisis. AIG's outside auditors had informed the Board that they could not rely on prime management certification.

We thus had to advise all interested parties that we would be delaying the filing of the 2004 10K. We then undertook an internal review of AIG's books and records. This review spanned AIG's major business units globally and involved more than 30 multi-discipline teams reviewing the company's global operations.

I was meeting regularly with our key state and federal regulators, and working with senior management to strengthen and enhance AIG's overall financial reporting and internal control environment.

AIG was segmented into four lines of business: life, non-life, financial services, and investments. AIG's Financial Services subsidiaries engaged in diversified financial products and services, including aircraft and equipment leasing, consumer finance and insurance premium financing, and capital market transactions.

AIGFP, within the capital markets area, conducted interest rate, currency, equity, commodity, energy, and credit transactions. During most of my tenure, Mr. Cassano was CEO of AIGFP. He reported to the head of Financial Services, Mr. Dooley. Mr. Dooley in turn reported to me.

You have also asked me to address risk management practices at AIG. The four components of Enterprise Risk Management were credit, market, operational, and later liquidity. The senior managers who headed each of these units reported to the Chief Risk Officer, Mr. Lewis, who reported to the CFO until early 2008, and then to me.

Mr. Lewis provided regular reports to both the finance committee and the audit committee. Many of the business units also had their own risk control units. Thus risk was managed both at the parent and line-of-business level.

The risk controls in place at AIG were designed to ensure that all information was shared across business lines, and that senior risk managers approved all strategic decisions. But each business unit then made decisions based on its overall strategy, and in light of all relevant business factors. And because of the events that occurred in March of 2005, risk management was a priority for the Board and for me.

Finally, you have asked me to discuss the events of 2007 and 2008. We devoted significant time and effort to analyzing and disclosing in detail the company's potential exposure across the board in all of its businesses to the deteriorating U.S. residential housing market.

AIG repeatedly revised and corrected estimates as it developed better information. In February of 2008, AIG was advised by its independent auditors that they believed a material weakness existed in its internal controls over financial reporting and oversight relating to the fair value valuation, sometimes referred to as the mark-to-market valuation of AIGFP's super senior credit default swap portfolio.

Shortly thereafter, AIG issued a Form 8K describing this issue and revising its valuation of the portfolio. After issuing its Form 8K, AIG also undertook an assessment of its valuation controls and procedures, and instituted managerial changes within AIGFP.

Throughout my tenure as CEO, my goal was to communicate as openly and directly as possible within the organization with investors and with regulators. I appreciate this opportunity to share my views, and I look forward to your questions.

Thank you very much, indeed.

CHAIRMAN ANGELIDES: Thank you, Mr. Sullivan. Mr. Lewis?

WITNESS LEWIS: Chairman Angelides, Vice Chairman Thomas, and Members of the Commission:

I am pleased to help in any way I can in the Commission's efforts to learn about AIG and the complex derivative financial instruments that I understand to be the subject of today's hearing.

I am the Chief Risk Officer of AIG. I joined AIG in 1993 as the company's Chief Credit Officer, and in 2004 was appointed the company's first Chief Risk Officer by then-CEO M.R. Greenberg.

As Chief Risk Officer, I established and continued to be responsible for the AIG corporate-level risk management function known as Enterprise Risk Management, or ERM.

As an insurance company, AIG is in the business of taking on risk. AIG's basic approach is that responsibility and accountability for the risks assumed by the various AIG business units actually reside within the business units themselves.

My role as Chief Risk Officer, supported by Enterprise Risk Management is to assist the businesses in identifying, evaluating, and managing aspects of their risks.

I understand that the focus of today's hearing is on complex financial derivatives, and in particular on the credit default swaps sold by AIG's Financial Products Division known as FP. So let me then get right to that subject.

An important aspect of the management of the risk from FP's sale of credit default swaps involved the CDO structure of the assets underlying the swaps themselves.

Basically, as I believe the Commission now very much understands, a CDO consists of a tower of loans with the uppermost level known as the super senior level having the first right to the entire tower's cash flow in the event of defaults and consequent losses above an agreed-upon level.

FP's approach to the management of its risk was to structure the credit default swaps so that they would only be triggered if the underlying losses were severe enough to rise to the highest levels in the tower, a risk that FP determined to be exceedingly unlikely even under severe economic scenarios.

FP's analysis of the risk was supported by significant risk management resources residing within FP itself, and reporting to its CEO. While neither FP's CEO nor its risk personnel reported to me, I understood FP's analysis of the risk to include quantitative modeling developed by a leading finance professor at Wharton which assumed features of the worst economic conditions that have existed at any time since World War II.

This statistical analysis demonstrated to a 99.85

percent confidence level that the upper level portion of a CDO tower insured by an FP credit default swap would not suffer credit losses.

FP sold its first default swap in 1998, and for years things worked as FP's models had predicted. However, in the latter part of 2005 ERM at the corporate level began to get concerned based on increasingly aggressive bank lending practices, and a housing market that was unduly heating up.

In early 2006, my chief credit officer discussed these concerns with FP's CEO in London who responded that FP's own risk analysis was identifying the same concerns, and that he had decided it was time to shut down.

At that point, commitments were already in place so it was not realistic to terminate the business instantaneously. However, with one exception FP decided to end its business of new credit default swap sales involving subprime exposure.

As to those swaps already on the books, the judgment was that they would continue to perform satisfactorily given the safety of the tower structure, and the fact that those swaps covered earlier mortgages provided at a time of more conservative lending practices.

As it turned out, we were wrong about how bad things could get. What ended up happening was so extreme that it was beyond anything we had planned for. The CDO tower structure, nonetheless, did provide significant protection to AIG because those investors at the top of the tower were legally protected by their superior rights to the tower's cash flow.

But the market's apparent anticipation of further cash flow declines, combined with an extraordinary erosion in market liquidity generally, resulted in a collapse of fair values, thereby triggering collateral calls.

AIG's liquidity was thus depleted, not withstanding that credit losses to AIG were not actually occurring and, given more time, the values would have been expected to come back.

As the credit crisis reached its peak, AIG's ability to maintain its liquidity declined precipitously as credit markets froze, other liquidity issues developed, and FP could not make good on all collateral call demands.

It was at that point that the Federal Government stepped in with Taxpayer assistance.

I would be pleased to answer any questions.

CHAIRMAN ANGELIDES: Mr. Cassano.

WITNESS CASSANO: Chairman Angelides, Vice Chairman Thomas, Commissioners:

My name is Joseph Cassano. I worked at the Financial Products Division of AIG for over two decades, and was the head of the group since January of 2002.

I was proud of FP's employees and remain proud of them today. If, as a result of this process, you are critical of our work, please direct that criticism at me, not them.

Thank you for having me. I fully appreciate the importance of your mission generally, and the importance of the events surrounding the AIG bailout specifically.

I want to thank your staff especially for their professional approach and many courtesies during my cooperation with the Commission. I know you have read my written submission. I will not repeat it here.

Although my perspective diverges in important ways from the popular wisdom, I am very willing to answer all your questions about our portfolio of credit swaps; our risk assessment and monitoring of that portfolio; our decision to exit the subprime business in early 2006--well ahead of many others in the market; our continuing surveillance of that portfolio; the fundamental analysis and contractual rights that formed the basis of our response to collateral calls during my tenure; the analytic method we used to value the portfolio for accounting losses; and issues surrounding our compensation structure generally, my compensation in particular, and the circumstances leading to my retirement. And of course any other questions the

Commissioners may have.

Chairman Angelides, you said that this Commission's work would be tethered to the hard facts. I am grateful for that. I intend to give you my best recollection and candid perspectives. I look forward to your questions.

CHAIRMAN ANGELIDES: Thank you very much. We will begin the questioning now. I will begin the questioning, and then we will go to Vice Chairman Thomas, and then to the Members of the Commission who led this portion of our inquiry.

I want to start with some questions first of all on the management of derivatives by the organization. So this is really about both the derivatives business as well as risk management in the company. And I obviously want to start with the perspective that things did not go well.

Earlier today one of our witnesses indicated that his view--which I think is shared by many--is that the story of AIG's management was one of irresponsibility only matched by a lack of accountability. So I want to talk a little bit about the risk management measures and how you viewed this marketplace.

Mr. Sullivan and Mr. Cassano, on December 5th of 2007 there was an investor conference. And at that time, Mr. Sullivan, you said that the risks that AIG took in the housing sector was, quote, "risk supported by sound analysis and a risk management structure that allows AIG to put our capital to work in an efficient manner."

And you went on to say that AIG, quote, "had a centralized risk management function that oversees the market, credit, and operational management of each of our businesses as well as the parent company."

During that same investor call, Mr. Cassano, you said that AIGFP performed, quote/unquote, "thorough due diligence on each CDS trade" and it was, quote, "a very selective process" with, quote, "rigorous modeling assumptions."

I want to ask you a number of questions about risk management. In that regard, I want to enter into the record a number of documents. It is a document called "Risk Management." There are a number of documents which we've received and reviewed both from AIG and from Price Waterhouse Coopers.

So the first is that in 2005 the amount of derivatives that you've written triples from about $17 billion to $54 billion during that year.

Mr. Sullivan, you told our staff that you did not know in 2005 that the decision had been made, and that in fact you had tripled your exposure to credit derivative swaps for asset-backed securities. Tell me why you were out of that loop.

WITNESS SULLIVAN: Thank you, sir. As I mentioned earlier in my opening remarks, obviously during 2005 I was focused on resolving the issues that were facing the corporation at that time, and I won't repeat those for the record.

My first knowledge of the CDS, super senior CDS portfolio was sometime during 2007.

CHAIRMAN ANGELIDES: So you had a book of $78 billion of exposure by 2007 and you didn't become aware of it until then?

WITNESS SULLIVAN: What I was receiving was regular reports from not only Mr. Cassano on his business, but also from Mr. Lewis and Mr. McGinn on AIGFP's business in its totality, including the credit default swap portfolio. But to the best of my knowledge, I never recognized that portfolio, and there were no issues raised in the correspondence that would have given me cause for concern.

CHAIRMAN ANGELIDES: Okay, Mr. Cassano, in the management reports sent up to the parent company, would the information have been there that in fact the exposure had gone from $17 billion in 2005 at the beginning of the year all the way up to $78 billion in 2007? That would have been in the management reports floating up, correct?

WITNESS CASSANO: Yes, sir.

CHAIRMAN ANGELIDES: Okay. Secondly, I want to talk about this. These were representative multi-sector CDOs. But if you look at--we did a sample of some of these, and in 2004-2005-2006 they were almost overwhelmingly residential-backed and very substantially subprime. For example, in a survey we did of some of these CDOs that you issued protection on, 84 percent were backed by RMBS, residential mortgages in '05, 89 percent in '06. And just as an example, while you indicated you decided to stop writing on subprime instruments, in January of '06 for example you backed an instrument called RFC3 where that CDO was 93 percent subprime and 7 percent HELOC.

My question for you, Mr. Cassano, is: You said you did thorough due diligence. Were you aware of the quality of the mortgages? Do you do direct analysis of the loan data? Were you confident that you had a full understanding of the nature of what you were backing? Oh, I'm sorry. I went fast.

93 percent subprime, 7 percent home equity loans.

WITNESS CASSANO: Chairman Angelides, the numbers that you're referencing in these portfolios I don't know specifically, and I'm happy to look at them again and go through that with you.

But I think to answer your question more directly, we never diluted our underwriting standards at any point in time. We had rigorous standards, standards set by the AIG Credit Risk Management, that we then employed in underwriting these transactions.

It's important to recognize I think that we did take the difficult decision to exit the business in 2005. But the other thing that I think substantiates our underwriting criteria in these transactions is that many of these multi-sector CDOs that we did now reside in Maiden Lane III, which is the special-purpose vehicle that the government set up after the bailout of AIG.

And to date that vehicle is performing. I think, you know, I'm sure the Commission knows the statistics. The Federal Government lent that vehicle $24 billion. To date that vehicle has repaid $8 billion through the performance of these transactions. And as far as I can see from where I sit, when I look at the portfolio residing in Maiden Lane III, I don't think any of the transactions have pierced the attachment levels that we had set in our underwriting standards.

CHAIRMAN ANGELIDES: But my understanding, Mr. Cassano, on that point that, while the real economic losses today may be relatively small, that the projections for the economic losses may be upwards of 25 percent, perhaps up to 50 percent on those portfolio. Do you think that's just not accurate?

WITNESS CASSANO: What I look to is the performance, and to see if anything has been pierced. Now we've gone through obviously one of the worst financial crises since, you know, in anybody's lifetime. And as we move through this and we come through the financial crisis, the only thing I can do is look at the existing portfolio and say that it is performing through this crisis, and it is meeting the standards that we set.

And I think our reviews were rigorous. I think the portfolios are withstanding the test of time in extremely difficult circumstances.

CHAIRMAN ANGELIDES: All right, let me move on because it really does bring me to the next issue, which is that here is something that I want to particularly query Mr. Sullivan about, and that's the following:

The contracts that were written with counterparties like Goldman provided for collateral calls if there were declines in market value, mark-to-market. Now I will stipulate at the beginning that of course Mr. Cassano was aware of this, Mr. Forster was aware of this, Mr. Frost was aware of this, Mr. Sun at AIG Financial Products were aware of it. My understanding is there would be collateral calls on AIG if there were economic losses, real losses, on the loan; if there were downgrades to AIG; and thirdly, if there were declines in market value of these securities, which in fact did happen.

And I am going to talk to you a little more at length about how this happened, particularly with respect to Goldman Sachs, in a few minutes. But, Mr. Sullivan, I just have to ask you, because here is a major commitment by your company--and I'm going to ask you, too, Mr. Lewis--in which you're backing ultimately $78 billion of protection. And what was imparted to us in our interviews is that you said to the best of your knowledge you were not aware of these mark-to-market terms in these contracts until the summer of 2007, which makes sense since you weren't aware of the contracts apparently until 2007.

Your CFO said that he wasn't aware that the contracts required posting of collateral if the fair value declined. He first became aware in the third quarter of '07.

Mr. Lewis, you are the Chief Risk Officer and you told our staff that you didn't know about this until Goldman made its first margin call on July 27th, '07. And when asked if the provisions caused consternation within the company, in our interview you say, quote, "I would say that's an understatement."

The Financial Services Division CFO, Mr. Habayeb, will be here tomorrow and he said he didn't know. AIG Chief

Credit Officer Kevin McGinn said he didn't know. How could it come to be, Mr. Sullivan and Mr. Lewis, that you have $78 billion of contract and you do not know that the contracts have a provision in them where you're going to have to post billions of dollars if market values decline, which in fact happened? How does that happen?

And I might add--and I don't want to be--you know, particularly in the context of compensation, $100 million plus awarded to you as CEO, how does that happen?

I mean, how would you now characterize that?

WITNESS SULLIVAN: Thank you, sir. I mean, the only way I can respond is by giving you the facts. The fact is that I only became aware of the CDS portfolio during 2007, although I was receiving reports that did not indicate that there were any issues pertaining to that portfolio and recognizing that no new business had been written since the end of 2005.

CHAIRMAN ANGELIDES: Well actually that's not true. I mean, the book was $54 billion at the end of 2005. It did climb to $78 billion. There were deals in the pipeline, and there were--we have a log. There were deals made. Now apparently a decision was made to do it, but a full wind-down did not happen immediately. You added another $24 billion of exposure, unhedged.

WITNESS SULLIVAN: Well my understanding was that obviously there was a meeting of the minds, as both my colleagues have articulated, between ERM and AIGFP to cease writing that business, or writing new business at the end of 2005.

As I said, the first time I became aware of the portfolio and collateral calls, to the best of my recollection, sir, is--

CHAIRMAN ANGELIDES: 2007.

WITNESS SULLIVAN: --2007.

CHAIRMAN ANGELIDES: That's stunning.

Mr. Lewis, you are the Chief Risk Officer. Anything you want to add to this?

WITNESS LEWIS: I would state that the risk issues that were the focus of the attention at AIG were around the actual credit risks and the underlying portfolios. And the rigorous work that we did, together with FP was to determine what the likelihood was of suffering credit losses through defaults and losses in the underlying mortgages.

The liquidity aspects were something that we, quite frankly, just didn't focus on to the extent that we now know we should have. These instruments, up until the time of the crisis, had traded in very narrow bands, highly liquid, AAA securities, until the crisis occurred when they traded off quickly. And then there was no market.

CHAIRMAN ANGELIDES: But were you aware that there was a liquidity provision? You weren't, were you?

WITNESS LEWIS: No, I was not, until the day I testified.

CHAIRMAN ANGELIDES: All right, let me now ask one more question, and then I want to turn to Mr. Cassano and ask a little bit about how this market worked, this over-the-counter market worked, and I'm going to really talk about the relationship with Goldman. But I want to ask one more question of the two of you, which is:

So the decision is made ostensibly to stop writing protection on subprime-backed CDOs, even though the exposure continues to climb. But meanwhile, another division of your company, AIG Investments, which invests on behalf of the insurance subsidiaries, is upping its bet very substantially. Decisions are made to change the policy for investment.

At the very time that one unit is saying let's pull back, AIG Investments starts to load in and invested a substantial amount of money, about $49.5 billion, or 65 percent of your $75 billion security lending portfolio in securities backed by subprime mortgages. That's by the end of 2007.

In the end of the day, you didn't hedge your credit default swap portfolio. You dramatically increased your securities lending portfolio. And in the end of the day you lose about $40 billion on these credit default swaps. You lose about $55 billion on your securities lending portfolio.

Again, how does this happen? How do you begin to up your exposure in one part of the company--I think Price Waterhouse Cooper said that this was a conclusion that this was a risk management failure, but you told our staff that you didn't think it was.

So you're recognizing a risk in one place, but you're substantially upping your bets in another. How does that happen? The two of you?

WITNESS LEWIS: The, the circumstances at the time were discussed. The concerns that we had about the overheating of the market and the relaxation of lending standards was discussed throughout the corporation with both Financial Products and the Investment Department.

The Investment Department was--is also responsible, obviously, for investing the cash of the corporation to receive and to earn a profit. So there's a tradeoff between risk and return which our investment professionals are responsible for.

We in Risk are only obviously concerned about the downside. So what occurred--and I think you referred to investment guidelines that established an overall limit, not a directive or an--

CHAIRMAN ANGELIDES: You lifted the limit, yes.

WITNESS LEWIS: The limit was determined, and it was a quid pro quo, if you will. We agreed to up the limit. The compromise that we reached was that they would--their investments would only be in the highest grade of the securities, triple B, RMBS. There were no CDOs in that structure.

CHAIRMAN ANGELIDES: All right. But at the end of the day, you did decline the exposure supposedly in one area, but you upped it in the other, and apparently--I just want to make the point--do you still disagree with Price Waterhouse Coopers that this was a failure in risk management?

WITNESS SULLIVAN: I think, with respect, sir, that Mr. Lewis has articulated what occurred, there was a dialogue between the credit offices and the ERM staff, and that the decision was made to make those investments in high grade securities.

CHAIRMAN ANGELIDES: All right. I guess the answer is, you still don't believe it was a failure. All right, let me move on.

Mr. Cassano, in the time I have right now before we can circle back, I want to probe an issue. I have been fascinated by how this over-the-counter derivatives market worked as between parties, particularly the fact that it wasn't traded on exchanges, and clearly I want to get a bead on precipitating factors in the crisis.

And at kind of the heart of the questions I am going to ask is: Was it really the diminishing quality of the subprime lending? Which you dispute. Was it a rapid decline in market values? Or were there dominos pushed here along the way?

Now it's no secret that Goldman Sachs was a very significant counterparty of yours. I believe they had about, of the $78 billion of exposure, they had about $21 billion of that exposure.

I am going to enter an item into the record, which is a chronology of all the capital calls that Goldman Sachs made, the amount of collateral you posted, the amount of credit protection that Goldman Sachs went and bought on your company as well as a lot of the correspondence back and forth.

But when you look at that record, some things are clear. Goldman Sachs was first in the door demanding collateral. They were the most aggressive in terms of the timing and amount. For example, by the end of the year of '07, of all the counterparties, while they were 27 percent of your book, you had posted 89 percent of the posted collateral was for them.

By June 30th, while they were 27 percent of the overall book, 48 percent of the collateral calls being made were by them. They were way ahead of everyone else in terms of the amount they were asking for, when they were asking for it, and they were much more aggressive in marking these securities down.

And so, you know, when I look at this I'm trying to figure out what happened. Are they just reflecting what was happening in the market? Is it like one of those Discovery Channel episodes where the cheetah is chasing down the weak member of the herd? Is it the first domino that begins pushing market values down?

Now, Mr. Cassano, in our staff's interview with you, you said that you thought something was up with Goldman because their first collateral call, which comes in July 27, '07, they revised it quickly downward from $1.8 billion to $1.2 billion, because they based it on bids, not the mid-point between bid and ask. They settled, even though they reserved the rights to dispute, for $450 million.

You said that Mr. Sherwood had told you that Goldman, quote, "didn't cover ourselves in glory during this period." Later on you said that Mr. Sherwood said that the market is starting to come our way, which you took from our interview as an implicit admission that Goldman's initial collateral calls were too low.

You noted that Mr. Blankfein had announced that Goldman was short on the subprime market, and you wondered whether Goldman was pushing or driving the market.

The records here--I want to ask you: How do you perceive what happened here? And I'm trying to also get to how the heck do you set market prices during this time period when Goldman in its own disclosures as it begins to continue to sell synthetic CDOs, they sold $63 billion worth of these from I think '04 all the way through April of 2007, I want you to give me your perception of what was happening here.

WITNESS CASSANO: I will.

CHAIRMAN ANGELIDES: Is that a lot?

WITNESS CASSANO: Yes. And I will, as I go through this, if I miss anything that you're still interested in, just probe me again and we'll just keep going through it until I cover it.

CHAIRMAN ANGELIDES: And I may have to go to other members because of my time.

WITNESS CASSANO: Yes, sir.

If we take the period of July--the initial collateral calls that came to us, if we put ourselves back into that period, it was a period where it was one of the first periods of increased market disruption due to what was to become the financial crisis of '08.

Goldman Sachs made the call on us of $1.8 billion. They then--we were surprised at the magnitude of the call, surprised at the lack of incrementality to the call, right? It went from nothing to $1.8 billion.

Obviously my job is not to trust Goldman Sachs numbers but to verify. We received their numbers. We went out and asked other major participants in the market for pricing on the same instruments, or similar instruments, and we received wide variances from the Goldman numbers.

And Goldman's numbers were always lower than the others.

CHAIRMAN ANGELIDES: And I should remark in this chronology they're lower all the way through.

WITNESS CASSANO: Yes, sir. And so my team, I instruct my team to assert basically the contractual rights that we had, which is to review the marks and the calls that they're making, along with others. And, as you pointed out, Chairman Angelides, the call rapidly declined, right? It went, as you pointed out, $1.8 billion at the end of July, $1.6 billion it became very rapidly. It then moved to $1.2 billion within maybe another 10 days. But by the time, if my dates are right, by the very early part of August, the number was down to $600 million. And this time in the market not a lot is going on.

The market is beginning to seize up at this point in time, so not a lot of changes. And my team was in a regular dialogue with the folks at Goldman.

CHAIRMAN ANGELIDES: Go ahead.

WITNESS CASSANO: As we went through this process, we did settle at the $450 million mark. I called my counterpart at Goldman, Mike Sherwood, and I said, Look, Mike, I don't understand what happened over at your shop where you come in at one point eight and end at four fifty, but I did know that it was difficult to source clear views of pricing in a market on transactions that really don't trade actively even in the best of times.

And what Mike said in the call was, look, I don't think we covered ourselves in glory in this whole process. And the reason for me calling him was to say, look, we need to meet again. You and I need to sit down and we need to figure out an objective way of getting values here. And how are we going to manage this going forward?

And we met to do that again, to sit down and iron that out, in September, in the early part of September. So--but I think your question is: What's my perception of what was going on?

I think my perception at the time, and still now, is that we were working in an opaque market. Because of the market disruptions, it was difficult to find price discovery. I think even a firm as esteemed as Goldman Sachs was having trouble getting price discovery.

And what made--convinced me that this was a difficult process was the rapidity at which they lowered their prices, or in which they raised their prices and lowered the collateral call.

CHAIRMAN ANGELIDES: But then they kept at it. They kept at it for a number of months. They kept coming.

WITNESS CASSANO: I'm sort of segmenting it into these periods, right. And because what happens then in September is we meet to try and figure out a way in which we can use the contractual rights that we have in the contract. Right?

If you have a strong disagreement in our collateral calls and you don't agree with the counterpart, the contractual rights that exist is for you to ask for a dealer poll, all right? And say, look, I don't like this. We're not agreeing. Let's go to the market. Let's get four people to put prices on these things. Let's average those out and we'll use those as the arbiter.

We went and discussed that in September. And then the process went dormant for awhile. But also at the same time that it went dormant, if you remember in late September I think the Fed may have made one of the initial rate cuts, which sort of added a relief rally to the market. And so this issue went on a back burner.

It wasn't until I think the very end of October, the beginning of November, when I received another call from Mr. Sherwood. And he explained to me that they were looking at their month-end numbers. He wanted to give me a heads-up, and they were going to make another call, and another significant amount, and this time their call was at $3 billion.

I said to Mike, look, we've got to look at these numbers because of what happened the last time. And at that point, that was when the response was: Well, you know, we think the market is coming our way at this time.

CHAIRMAN ANGELIDES: All right. Well, I am going to move on. We have entered into the record this full chronology, which I believe is the first time it's been done because it's a very interesting look at how this market worked.

I do want to return to this issue. I know that we have the Goldman folks later today. We have a full panel tomorrow morning. If there is some time at the end I would like to follow up with some additional questions on this matter, but I do want to move to other members at this time.

With that, Mr. Vice Chairman?

VICE CHAIRMAN THOMAS: Thank you, Mr. Chairman. My understanding from staff is--and first of all I want to thank you for coming. We have to be able to at least understand the mindset and the activities at the time from many different sources to understand the way you looked at the world at that time.

And it is always easy in hindsight in anything to talk about what would’ve, could’ve, should’ve, but our goal in part is to try to understand where you were at the time that it happened.

I know, Mr. Cassano, you are looking at where you are today in terms of the value, and you make those arguments. And I used to hear an old story which was supposed to be funny, about a guy who pulls up to a gas station in Vermont and asks directions of the old Yankee there, and he finally said: Well, have you lived here all your life?

And the old guy says: Not yet.

So are you able to project risk ahead? I assume that would have been part of your fundamental business. And the answer that I thought I heard from you to the Chairman's question was that they haven't fallen apart yet.

Do you believe you're going to make money on these? Is there going to be a loss eventually? Can you project that out?

WITNESS CASSANO: Vice Chairman, nobody can see into the future. What I was responding to the Chairman's question was that we employed a very--one of the questions I think is: Was it credit risk that destroyed, that caused the problem in this portfolio?

I think the credit risk analysis that we did, and the underwriting standards that we met, and the structural supports that were built into the transaction are so far standing the test of time.

VICE CHAIRMAN THOMAS: Yes, just like the fellow who said "not yet." So, so far.

In terms of this assessment, in terms of risk, you mentioned in your testimony something that others have repeated. That is, that the underlying structure were, after all, AAA. Did you ever look into, as part of your due diligence in terms of risk, how the rating companies were coming up with what were AAA ratings? And what was AAA a few years ago was or was not the same standard? Or you simply took the AAA label for what it was?

And I guess, Mr. Lewis, you're part of that question as well.

WITNESS CASSANO: But you're asking me first, right, Vice Chairman?

VICE CHAIRMAN THOMAS: Sure. Go ahead.

WITNESS CASSANO: We did a fundamental analysis of the transactions. My team reviewed the underlying portfolios and the underlying assets within the portfolios directly.

So we were not reliant on the rating agencies to tell us what was good or bad in these portfolios.

VICE CHAIRMAN THOMAS: So you were actually observing the degradation of the types of collateral--in fact, no collateral, no-doc loans--that was occurring in the mortgage activities backing these?

WITNESS CASSANO: That is--the issue that you identify about the underwriting standards slipping is exactly what made us come to the conclusion that we needed to exit the subprime underwriting within the multi-sector CDO business as we saw the beginnings, or the potential for those underwriting standards not hitting the targets that we had set because of the issues that you just identified.

VICE CHAIRMAN THOMAS: And that was in '05?

WITNESS CASSANO: The analysis was done in the last quarter of '05, and the decision was made in December of '05, and then we ran through the portfolio.

VICE CHAIRMAN THOMAS: One other date check, Mr. Sullivan. You indicated that you got the margin call, or at least the initial communication, with Goldman in July of '07?

WITNESS CASSANO: Yes, sir.

VICE CHAIRMAN THOMAS: And you were not surprised, because you knew in the contracts that there was a margin call. You were surprised at the size of the margin?

WITNESS CASSANO: Yes.

VICE CHAIRMAN THOMAS: Was that when you found out there were margin calls, Mr. Sullivan?

WITNESS SULLIVAN: Thank you, Vice Chairman. I think to the best of my recollection it was some weeks or months later.

VICE CHAIRMAN THOMAS: After he began the negotiations in terms of whether or not those were appropriate amounts for the margin call? You weren't aware of that at the time that it occurred? You found out about it months, weeks or months later?

WITNESS SULLIVAN: Certainly I think, certainly nowhere around the July time. I think it was much later on in the year.

VICE CHAIRMAN THOMAS: Okay. I'm just trying to take this stuff in. I appreciate your cooperation, and I will admit I have never been involved in an enormous multi-national operation in which apparently there's not as much communication about what I would consider a major problem in a significant sector of the business.

So I want to ask some questions, Mr. Sullivan, about how we got into this. If you weren't aware there were margin calls--I guess I should address it to Mr. Cassano, but anybody who could answer me--you were in this business fairly fast and furious prior to your recognition that you had dug a hole that you could not climb out of in essence, so you stopped digging.

Was it motivation on the basis of a compensation structure that you were doing all this in the volume that you were doing it? Because it was a line of business that was going to make a lot of money? Or that people who were doing it were making a lot of money? And they're not always the same thing.

WITNESS CASSANO: I think one way of looking at this is to say that we, early on in 2005, we took the decision to run down our portfolio--

VICE CHAIRMAN THOMAS: I'm more interested in '02, '03, '04 when you were running it up. Taking one side of the bet from almost all comers.

WITNESS CASSANO: I think what you need to look at within these transactions is the underwriting standards that we committed to to do these transactions.

I've heard this phrase that it's a one-sided bet, but when you think about the protections that we built into the contracts through the subordination levels, through the structural supports that we built into the contracts, and then through the very, very strict underwriting standards we performed, this was extremely remote risk business.

And it's not the credit risk here that eventually became the issue at hand. My point has been that the underwriting standards, and the credit risk within these transactions, have to date been supported and still perform.

VICE CHAIRMAN THOMAS: Then I guess I have to ask you the question: How much money did you get from the Federal Government?

WITNESS CASSANO: For the credit default portfolio? The Federal Government paid $40 billion. But one of the things I wonder about when I look at that is I've never understood why the $40 billion was accelerated to the counterparts.

Now I haven't been involved in that, and I'm only looking at it from afar, but when I think about the contractual defenses and the contractual rights we had in the contracts, it has caused me to scratch my head and ask why was it that $40 billion was accelerated to the counterparts.

VICE CHAIRMAN THOMAS: Okay, so you weren't in the room when that kind of a decision was made.

Mr. Sullivan, were you in the room when that decision was made?

WITNESS SULLIVAN: No, sir. I had left the company some months earlier.

VICE CHAIRMAN THOMAS: Okay, it's always someone else. So partly convenient leaving helps a lot in our not fully understanding.

This is one of the problems that I have when I try to explain what occurred, and so maybe I need a little help. There are people out there who are no longer in their homes through what they believe is really no fault of their own, although we could nitpick in terms of why did they go ahead and get money out of their homes in terms of diminishing their equity and all of those other arguments.

But what I have a hard time doing is explaining why some people in the business, that their Taxpayer dollars kept in business, even receiving as much as a million dollars a month when some of the folk who lost their homes won't make that much in their lifetimes. And then they read a newspaper story that their tax dollars going to AIG. What does "A" stand for?

WITNESS LEWIS: "American."

VICE CHAIRMAN THOMAS: American. The Taxpayer dollars going to AIG wind up in a bank in Great Britain, in a bank in Germany, a couple of banks in Germany, banks in France, banks in Scotland, in Maiden Lane III in banks in Canada. How do I explain to them, based upon what happened to them, that what occurred between you and the Federal Government was something that should have been done, needed to be done, and that in fact was the right thing to do in terms of resolving this issue?

Is there anything you can give me that I can tell them?

WITNESS LEWIS: Mr. Vice Chairman, what I would say is that AIG was under tremendous liquidity pressure at that point in time, and the Taxpayer came in through the Federal Reserve Bank of New York and assisted AIG. And our board made the determination to accept that assistance and move on.

At that point in time, however, when the government came in, the markets were still in decline, and there were further liquidity needs being put upon AIG. At that period of time, the Federal Reserve Bank took over negotiations and determined--and went and had discussions with the counterparts. We were not a party to that. And a decision was made that the best way to arrest the further requirements of liquidity on AIG would be to set up the ML III structure. And through that structure, the credit default swaps were extinguished and cancelled, and for that the decision was made that the cash collateral that we had posted, which the Federal Reserve had funded, would be part of the consideration given to the counterparties, as well as the sale of their CDOs to the ML III structure.

VICE CHAIRMAN THOMAS: And what probably begins to concern me even more is that, even to date, witness--did you see the article in this morning's New York Times?

WITNESS CASSANO: Yes, sir.

VICE CHAIRMAN THOMAS: Discussing the possibility, when you decided, as you indicated, Mr. Lewis, to accept and move on, that apparently, and my timing may not be exactly right, the move on part was an agreement that was reached with the Federal Government in terms of a condition of aid that there would not be certain activities pursued by AIG, either of a legal or other nature, toward Goldman Sachs, I think the story said. Were any of you aware of that prior to the story breaking this morning in The New York Times?

WITNESS SULLIVAN: I was just going to answer, I didn't read the article and unfortunately I had left the company months earlier. So I can't respond to your question.

VICE CHAIRMAN THOMAS: So you haven't read the article?

WITNESS SULLIVAN: No, sir.

VICE CHAIRMAN THOMAS: That apparently there was an arrangement in which they would not pursue legal--Mr. Lewis, I guess you're the one left there. Everybody else is going to talk about retirement if I ask.

WITNESS LEWIS: No, I was not aware of that. But our Legal Department would have been responsible for those negotiations. I was not a party to it.

VICE CHAIRMAN THOMAS: Well I guess then I would just ask your opinion. Can you give me your opinion of--you read the story?

WITNESS LEWIS: Yes.

VICE CHAIRMAN THOMAS: How is someone supposed to take the information in the story about that kind of a deal being arranged? How do you take it?

WITNESS LEWIS: Well I--as I say, I was not involved. I'm not responsible for the legal negotiations of AIG, and certainly not for the Federal Reserve Bank. At the time--

VICE CHAIRMAN THOMAS: Are you shocked or surprised that there would be a deal like that? Do you think it was a fair thing? Would you have done it had you been in their position? All I'm looking for is a personal response.

WITNESS LEWIS: Without knowing the other circumstances, I would be surprised, yes.

VICE CHAIRMAN THOMAS: You would be surprised that they did agree to that? Or that maybe the situation was so bad they would agree to anything, and that was what they wound up agreeing to?

WITNESS LEWIS: Surprised, but I certainly can't take into consideration other aspects that I am not aware of.

VICE CHAIRMAN THOMAS: Mr. Chairman, hopefully others can do a better job of trying to unravel this. I will hold my time.

CHAIRMAN ANGELIDES: Ms. Born.

COMMISSIONER BORN: Thank you very much, Mr. Chair.

I would like to start out with talking with Mr. Cassano. AIG Financial Products was a large over-the-counter derivatives dealer. And partly because of the Commodity Futures Modernization Act, partly because of your location of many of your operations in London, you weren't really effectively regulated or overseen by a U.S. regulator. And the products in the markets you were dealing in weren't really overseen by the U.S. regulators.

AIG's derivatives portfolio I understand in 2007 was $2.7 trillion, of which I understand about a little over $2.1 trillion were actually in financial products. Is that right?

WITNESS CASSANO: Those numbers make sense to me, but I haven't looked at them lately.

COMMISSIONER BORN: And you were a dealer in many kinds of derivatives, not just the credit derivatives? Is that correct?

WITNESS CASSANO: That's right.

COMMISSIONER BORN: With respect to your

portfolio as a whole, did you hedge any parts of that portfolio?

WITNESS CASSANO: Yes.

COMMISSIONER BORN: Which parts?

WITNESS CASSANO: Much of--we just--we ran books, derivatives portfolios in interest rates and currencies, in equity derivatives, commodities, and in credit. And in all of those portfolios, we operated with risk mitigants, including the super senior credit derivative portfolio, as I was talking about earlier, with the first loss pieces on the underwriting we did.

But we ran--you know, nothing is a hundred percent hedged, but the books were generally considered fully hedged.

COMMISSIONER BORN: Well let's look at your credit derivatives portfolio. I think there was something like more than $560 billion in notional amount of credit derivatives in your portfolio in 2007. Were you actually hedging in the conventional sense? Or were you relying on tranching and the level at which you were insuring?

I want you to answer as to whether you were hedging the way you were hedging your interest rates by taking offsetting positions.

WITNESS CASSANO: Perhaps the best way to delineate this is that the super senior credit derivative book, which is the book you're--the super senior credit derivative book globally, which is the book you're referencing at $560 billion, we were using basically an actuarial basis in order to secure that business.

So it wasn't--it's not hedged in the conventional sense that you're talking about buying and selling interest rate risk.

COMMISSIONER BORN: You were just relying on the structure of the instrument and what you were assessing as the safety factor, the extremely low risk of default that you were assessing for that instrument. You were not otherwise hedging by going out and getting offsetting? You weren't purchasing any credit default swaps to offset the ones you were selling? Is that correct?

WITNESS CASSANO: Yes. But, you know, and I've made this point before, but if you look at if there had been any realized losses in these portfolios, and as I've said we can see the Maiden Lane III portfolio, but we also can see the other portfolios as they still exist in AIG, and as best as I can tell there had been limited--and perhaps Mr. Lewis knows this answer better than I do because I'm not inside the company anymore--but there have been limited losses associated with the piercing of the attachment point where risk would come to AIG.

I think, from what I saw in the AIG reports, there was a realization event when they unwound a portfolio that they had.

COMMISSIONER BORN: But in your assessment of the risk in the underlying of the super senior credit default swaps that you had been issuing, you were only looking at one kind of risk on those instruments, weren't you? The default risk on the underlying?

WITNESS CASSANO: Yes.

COMMISSIONER BORN: You were not looking at the risk that AIG would have to post collateral, for example?

WITNESS CASSANO: We managed the liquidity risk during the process. We knew, as I think we need to--the transactions that had the collateral calls associated with them were the transactions in the United States. It's the multi-sector book. We had those collateral calls' provisions.

We knew we had the resources to manage those collateral call provisions. Through my tenure with the company, we adequately managed--

COMMISSIONER BORN: Were those from capital reserves? Where were your liquidity provisions being held?

WITNESS CASSANO: Well it was liquidity that we needed, right? You needed to be able to pledge collateral, or to give people collateral at that time. We had an asset and liability committee within our group, that Asset

Liability Committee, who did a continuous review of our liquidity needs and our potential liquidity needs.

And if we needed to, we could liquidate an asset that we had. We managed some approximately $50 billion in liquid securities. We could liquidate those securities and then use those to pledge the collateral--pledge as collateral.

As I understand it at least, and again, you know, your knowledge is probably more perfect than mine, is that there were no--there were strains, but there were not issues meeting the collateral calls all the way up to the September events when the capital markets had seized up completely.

But I think all through that period, the FP team was able to adequately meet the collateral calls through the liquidity provisions that we had.

COMMISSIONER BORN: Mr. Lewis, as the Chief Risk Officer, were you aware of the collateral obligations of AIGFP on these contracts?

WITNESS LEWIS: As I testified earlier, I only became aware of the collateral call provisions in this book, the book regarding residential mortgages, in the latter part of '07.

COMMISSIONER BORN: And had you--therefore you had not made any kind of liquidity provisions up until that time for that obligation?

WITNESS LEWIS: The responsibility for liquidity risk management did not--was not directly under my jurisdiction. However, I was generally aware of the liquidity risk management process that Financial Products did undertake where they reviewed their contingent liquidity requirements.

And the requirements presented by this book of business did not rise to a level of concern until the market really crashed in the '08 period of time.

COMMISSIONER BORN: So you think there were adequate liquidity provisions even though AIG ended up losing $40 billion on that portfolio?

WITNESS LEWIS: Well clearly--

COMMISSIONER BORN: And needing a government bailout and commitment of $180 billion-plus?

WITNESS LEWIS: Clearly, clearly as it turned out we did not have adequate liquidity management processes that took into account such a severe stress to the market and the requirement for liquidity under those stressful conditions. And clearly we did not.

During that period of time, '07 into '08, I was asked to take on responsibility together with our treasury of addressing liquidity risk management processes and framework in the corporation. Until that time, I was not responsible for liquidity. But clearly, as it turns out, we did not have adequate liquidity risk management. Otherwise, we would have had sufficient liquidity to weather that storm.

COMMISSIONER BORN: Let me ask Mr. Cassano whether he was aware of the practices of other large over-the-counter derivatives dealers with respect to their CDS transactions. Was it unusual to hedge credit default swaps as an over-the-counter derivatives dealer? Or were other dealers actually hedging those risks?

WITNESS CASSANO: It's a broad category, CDS. If we're talking about super senior CDS and looking at them on an actuarial basis, I think--and the super senior, it's my understanding that there were many dealers who--or many participants in the market who had the same types of positions that we did, where they were relying on the underwriting standards of these trades.

COMMISSIONER BORN: Well for example--

WITNESS CASSANO: But, Commissioner, if I could go back--

COMMISSIONER BORN: --Goldman Sachs in the transactions that we've seen where you wrote credit default swaps for Goldman Sachs, Goldman Sachs was apparently using you to hedge its own commitments to other customers with credit default swaps.

WITNESS CASSANO: In that instance, that's possible. I don't know what Goldman was doing. I do know that there were others who were treating the business the same way we did.

COMMISSIONER BORN: Do you know which institutions were doing that?

WITNESS CASSANO: The monoline insurance companies were looking at it the same way. There were--those are the ones who come to mind right now.

COMMISSIONER BORN: Did you ever consider putting up side-capital reserves the way, for example, a monoline insurance company would be required to do in order to back up your obligations on these contracts?

WITNESS CASSANO: We had reserves in AIGFP against our entire book. There was a program that we needed to--that we had developed between us and the credit risk management and market risk management functions in which we set aside reserves for the risk that this business took.

So we had a pool of reserves that was available. I think, you know, one of the--when I look at this business and I try and segment what happened and what went--what caused the bailout, it doesn't appear to me to have been a credit risk issue. I think it was a liquidity issue.

And it was a liquidity issue that was brought about by the seizing up of the capital markets, but also added to that issue was that there was a market disruption event going on in terms of trying to find the fair value for these contracts. Because these aren't tradable instruments. These aren't the kinds of things that even, as I've said before, even in the best of times would trade freely.

And so, putting on--trying to come up with a fair value estimate for these contracts in a market disrupted period is difficult. And what should have happened, in my estimation, as the crisis moved on was--and it's the thing I raised earlier where I said I don't understand why the funds were accelerated to the counterparties the way they are--we should have gone to the dealer poll.

The reason we should have gone to the dealer poll at some point in time--and, you know, either sometime in the summer or in the early autumn--was I believe the dealer poll would have failed, because of the market disruption that was going on.

COMMISSIONER BORN: Well, let's--

WITNESS CASSANO: Can I--

COMMISSIONER BORN: Before we get into, you know, whether the markets were accurate, or how we--I would rather ask you--

WITNESS CASSANO: --if the dealer poll failed--

COMMISSIONER BORN: I would rather ask you about something else, if you please.

WITNESS CASSANO: Sorry, Commissioner.

COMMISSIONER BORN: Aren't these exactly the kinds of concerns, drying up of liquidity, need to post collateral, downgrading of the company, downgrading of the underlying reference collateral, loss of price--loss of value in the underlying reference collateral, that you should have been thinking about in hedging or keeping capital reserves?

WITNESS CASSANO: So, Commissioner--

CHAIRMAN ANGELIDES: I yield five minutes.

COMMISSIONER BORN: Thank you.

WITNESS CASSANO: Commissioner, as I said, with the contractual supports that we had, and the contractual rights that we had in the contracts, in a severe event that would have caused prices to go as low as they were, as they did, we should--and you assert those contractual rights, what you then do if this dealer poll fails, which it would have because nothing was trading, right. In these distressed periods, money market instruments aren't trading.

Liquidity is at a super premium. It's difficult to find anything other than a Treasury that might trade. The dealer poll would have failed. You would have been back to a negotiated situation. And where you would have been is where the company was during the period that I was in the company. You would be negotiating deep discounts on these collateral calls.

So from my point of view, a failsafe mechanism built into this process that said that we did have adequate liquidity reserves, because we were able to meet the collateral calls, that in the severe scenario that you're outlining, the contracts allowed you to assert rights that would then compel the counterparty to come back to the table--

COMMISSIONER BORN: But you never asserted those rights.

WITNESS CASSANO: Commissioner, this is--

COMMISSIONER BORN: And you never got to that point. That's pretty hypothetical.

WITNESS CASSANO: But, Commissioner--

COMMISSIONER BORN: Did you ever try to hedge these, your exposure on this? Did you ever go into the market and try to get offsetting contracts?

WITNESS CASSANO: As I've said before, we were relying on our underwriting standards.

COMMISSIONER BORN: So you're saying, 'no'?

WITNESS CASSANO: Yes, ma'am.

COMMISSIONER BORN: I know that you say that you reduced--you made a decision no longer to write CDS on super senior CDOs in early 2006. I don't quite see that in the numbers.

At the end of 2005 you had $54 billion in that portfolio. Two years later, in 2007, you had $80 billion. That's a 50 percent increase almost. How was it that you stopped writing and yet you almost doubled--you increased by 50 percent your portfolio after you supposedly stopped writing these?

WITNESS CASSANO: The answer to this is in the details. Because what we announced was that we were stopping our underwriting of subprime securities in 2005.

We still underwrote multi-sector CDOs that had prime or had CMBS in them. And I think we've been fairly clear on this--

COMMISSIONER BORN: And that's what's in that $80 billion?

WITNESS CASSANO: And that's the--there are two things that are in that number, just to be clear, right? We took the decision at the end of '05. We had commitments in a pipeline. We ran those commitments through until just about the end of May. I think there was one special exemption at the end of May that we did in coordination with an agreement with ERM.

And by I believe it's June of '07, we were no longer underwriting any subprime collateral on our multi-sector CDO book. And that is why we have such limited exposure in our book, or had such limited exposure in our book to the problematic vintages of '06 and '07. Because, you know, you need--

COMMISSIONER BORN: Well you still lost $40 billion.

If you had been being treated as a regulated insurance company, you would have had to keep adequate reserves. If you had been trading on a regulated futures exchange, there would have been no question about price discovery because there would have been trading that would have a transparent and available price. There would have been no question about AIG building up a big exposure because your contracts would have been mark-to-market twice a day, and you would have had to pay margin at the end of the day, if the value of your contracts eroded.

Were you exploiting a regulatory gap by avoiding insurance regulation with these credit default swaps which acted virtually like insurance? Were you avoiding futures' regulation in instruments that were virtually like futures in order to be able to build up this enormous exposure and make profits on an almost infinite leverage?

CHAIRMAN ANGELIDES: And, by the way, time. And then we will circle back. Go ahead. I want you to answer the question.

WITNESS CASSANO: Commissioner, I would have been happy to do this business in a regulated insurance company.

And I think in some of the public statements I've made in the past, I have advocated that these transactions are almost similar to, or in many ways are--

COMMISSIONER BORN: Identical.

WITNESS CASSANO: --insurance contracts. And, that I would have thought that was a good thing. Because what it would have done, since insurance contracts are not mark-to-market, it would have saved us the issue of having to come find a fair value for these contracts when no market existed, and discovery of prices and creating a fair value was near-impossible.

So when you ask me if I was avoiding: No. I would have encouraged that kind of regulation, and I would like to have had this business done in an insurance company.

COMMISSIONER BORN: Why didn't you just become an insurance company? You were a subsidiary of one.

WITNESS CASSANO: We were a dealer in derivatives, and this business in itself trades in the derivatives markets. And, you know, that's the business we were doing.

COMMISSIONER BORN: Because that was a nonregulated market.

CHAIRMAN ANGELIDES: All right. Thank you very much.

Mr. Hennessey?

COMMISSIONER HENNESSEY: Thank you, Mr. Chairman.

I want to see if I can do this in reverse chronological order. I want to start with that third week in September. And I guess, Mr. Lewis, you were the only one of the three who was still there.

So, September 17th, 18th, 19th of 2008 is when the Federal Reserve Bank of New York provides $85 billion of revolving credit to AIG, to the parent company, right, not to AIGFP?

WITNESS LEWIS: To the parent company, yes.

COMMISSIONER HENNESSEY: Okay. And that was because AIG was facing a liquidity crisis. You needed cash to pay somebody. What was the proximate need? Who needed the money at that point in time? And I've heard a couple of you talking about adverse market conditions. Was it because there was a sudden increase in the demand for cash from AIG, for instance from counterparties? Or I've heard talk of the risk of a ratings downgrade. Or was it that you couldn't raise the cash that you needed in overnight markets?

What was the reason for the significant change in a need for liquidity?

WITNESS LEWIS: In that period of time, the liquidity was completely dried up in the markets. And there was little access to AIG's usual sources of liquidity to issue commercial paper, issue debt, et cetera. It was a general freeze of liquidity in the markets.

The demand for liquidity at the AIG level at that point in time was in order to continue to meet the margin call requirements at FP, as I recall. And also in our securities lending business we were trying to increase liquidity because the customers that we dealt with in the securities lending business, who were themselves financial institutions, were themselves trying to husband liquidity at the time.

So the Federal Reserve came in with a revolving credit of $85 billion. I don't recall the specific number that was borrowed under that facility at the first day, but I--

COMMISSIONER HENNESSEY: I'm not interested in that. I'm trying to rebuild the chain of events by working backward.

So the Fed provided the $85 billion of cash. AIG needed the cash both because there was a supply--there was a decline in the supply of available cash, and there was an increase in the demand for cash from their counterparties on both the collateral calls on AIGFP and also on the securities lending? I've got it right so far?

WITNESS LEWIS: Yes.

COMMISSIONER HENNESSEY: Okay. Now those collateral calls had been going on for some time, right? I mean, they didn't just start in September. And what I think has been happening is week bumping up against Mr. Cassano saying, look, I was right in how I estimated the value of these CDOs and CDS, and by the way the process by which that dispute was resolved was nontraditional.

But I guess what I'm trying to get at was: Whose job was it to anticipate the possibility and manage the risk of an increase in collateral calls?

WITNESS LEWIS: At the AIG, Inc., level, ultimately the responsibility for ensuring sufficient liquidity of the corporation rested with the CFO and the treasurer of the corporation.

COMMISSIONER HENNESSEY: Okay, and to whom do they look to manage the risk that our counterparties might show up and demand more money, and we might argue with them but we might lose that, whether we're right or wrong? Is that the treasurer and the CFO? Are those individual business units within AIG?

WITNESS LEWIS: Yes. The respective chief financial officers and treasurers in the business unit subsidiaries would be responsible for the liquidity management in those businesses.

COMMISSIONER HENNESSEY: Okay. Because I'm going to, Mr. Cassano, your point about this being a liquidity issue because, whoever was right in evaluation of these underlying securities, someone got it wrong in terms of their estimation that they would win or lose that dispute, or that the process would not work out their way.

Was that you who mis-estimated the risk that you might have to put up more cash to your counterparties?

WITNESS CASSANO: Commissioner Hennessey, I don't think I mis-estimated the risk. I think if you look at my time with the company, which I was always able to negotiate extremely steep discounts with all the large requests for collateral.

So when someone would come and ask for collateral, doing fundamental analysis of the collateral call, and combined with asserting the contractual rights within the contracts, we were able to substantially discount the collateral calls that were being made, and continue to adequately manage them.

COMMISSIONER HENNESSEY: Right. And you were able to work that out, say, for instance with Goldman every single time, and then something changed. What changed, and when?

WITNESS CASSANO: I left the company in March, right? I was asked to retire in March, at the end of March. I wish I was able to have stayed on and helped through this process, because I don't know the answer to this.

This is--of the things that I look at as surprising to me is, even in the period in September, I don't understand why people didn't look at the contracts and assert the rights under the contracts to preserve the liquidity. And I think if they did that, the Taxpayer would not have to have accelerated the $40 billion that it did.

COMMISSIONER HENNESSEY: Okay, after you left did the payouts then of those collateral calls change qualitatively from when you had been doing it? You had been able to negotiate deep discounts. Then you leave. Then things change and AIG is paying out more cash to Goldman and other counterparties? Is that how it works?

WITNESS CASSANO: What I'm thinking about is the September number. I mean, I can see what happened in September and I can see that the counterparties were paid off at 100 cents on the dollar. I'm not sure. I wasn't involved in the collateral call process from the time, from March 30th. So all I can see is what the events were on the big dates of the bailout right now.

But I don't know how the negotiations went during the interim period.

COMMISSIONER HENNESSEY: Anything you can add, Mr. Lewis?

WITNESS LEWIS: I was not directly involved in the negotiations with the counterparts regarding the collateral call postings. My only involvement was I attended a couple of meetings, two meetings specifically, with Goldman Sachs where we were trying to understand their marks, their prices, and to what extent they were really real prices in the marketplace.

And so I did attend two meetings there where they discussed their prices.

COMMISSIONER HENNESSEY: Okay, and I'm not interested in the particulars of specific transactions. I'm trying to get a sense of the general gestalt here. Because what we have is a disagreement over how much these securities are worth. Right? You think they're worth a certain amount because you've got certain assumptions about the housing market. Your counterparties have a different thought.

Your auditor comes in and says: We think you're over-valuating--you're over-valuing those securities. All right. You then leave. And then presumably, I assume induced in part by the signal from your accounting firm, that then tips AIG's behavior. That it's not just that Mr. Cassano leaves, but that the firm starts making more payouts, more cash is going out the door, and you're running down your liquidity more. Is that--and I don't need specifics, but presumably something changed after he left.

WITNESS LEWIS: I am not aware--I am not aware of our external auditors' view that we were overstating the value of the derivatives that we filed in our financial statements.

We worked very closely with our external auditors to determine what we ultimately filed as our best estimate of the fair value of those securities.

COMMISSIONER HENNESSEY: Mr. Chairman, did you have something?

CHAIRMAN ANGELIDES: Yes. I had two comments. I was getting clarification on the second. But, Mr. Hennessey, I did want to point out, in the chronology which the staff has prepared, I think you've alighted on a very at least important issue here of at least pre-Mr. Cassano's departure there seems to be a pretty fulsome record here of disputing, challenging collateral calls.

Whether it's that the paper trail becomes thinner after that date or not, after that time period you see a dramatic acceleration in the calls and the payments by AIG. And I think you've lighted on something from a risk management standpoint that was very interesting.

COMMISSIONER HENNESSEY: Right. Thank you. Because as I'm looking at this, I'm seeing, you know, March 3rd, Goldman increases their margin call from $2.5 to $4.2. Two weeks later they increase their margin call from $4.2 to $4.8 billion. And I understand that different people can come up with different values and can have different views as to how much collateral is necessary, but given that that dispute is now highly visible, and I presume that all the way up to you that you're aware that there are disputes with Goldman in the hundreds of millions if not billions of dollars as to how much collateral should be posted, did anyone at that point in time--I guess I'll ask you, Mr. Sullivan, did anyone at that point in time say what happens if these disputes keep going? What happens if they ratchet up? Do we have enough cash on hand?

Because it wasn't until nine months later that, you know, that you had to knock on the door and get money from the New York Fed.

CHAIRMAN ANGELIDES: And one more point, Mr. Hennessey. I got clarification on this second point, because you asked two very good questions. And secondly, just for clarification, yes, Price Waterhouse Coopers did I believe in the preparation of the 8K, which was filed in February of 2008, indicated that they should have been taking into account the marks and the market in valuing their portfolio.

COMMISSIONER HENNESSEY: Mr. Sullivan?

WITNESS SULLIVAN: Commissioner, what I can tell you is that I was aware of two collateral calls, by name, Goldman Sachs and Calyon. What the company had decided to do early on in 2008, given the illiquidity in the marketplace, and bearing in mind we could have had a hurricane, we could have had an earthquake, or whatever, we made the decision to build up our cash reserves.

AIG had significant cash flow, and we made the determination to build up our cash. In the event that any event occurred that required AIG to pay out cash, we didn't have to sell into what was becoming a fairly illiquid market, and became a very illiquid market. And we actually announced--we advised the market of that because, obviously, if you're harboring cash, you're not generating any investment income of any consequence.

Up until the time I left in the middle of June of 2008, whatever collateral call that emerged, we were able to handle those, and there was certainly no need, or no indication whatsoever when I left that in three months time, or four months time the company was going to need government intervention.

What occurred during the period around the dates you articulated in September, unfortunately the only person on this panel that was there was Mr. Lewis, and I think he's articulated very well what occurred.

COMMISSIONER HENNESSEY: Okay, because here's what I'm finding difficult. In March we know that there are disputes between AIG and Goldman in the hundreds of millions of dollars--or, sorry, billions of dollars of margin calls based on a difference of opinion about the values of certain securities.

You're there up until June. You know that there is a risk from this because--and we know this because you tell us that you are building up cash reserves--but then things change so dramatically. Somebody seriously under-estimated the liquidity risk, and I'm trying to understand. Because separating out the question of how much were these securities worth, somebody didn't figure out how much cash you might need if these margin calls got out of hand.

Is that a fair characterization?

WITNESS SULLIVAN: All I can say in response, sir, is we were building up cash, given the significant cash flow of the organization, in order to respond to any set of circumstances, whether it was a collateral call, a hurricane, an earthquake, whatever. And as I said, up until the time I left there was, to the best of my knowledge, we were able to respond to whatever collateral calls were required.

And up until that time, we were still building up cash. What happened after I left, sir, I would like to be able to help you but I simply can't.

COMMISSIONER HENNESSEY: I understand. Okay. I'm running out of time. I want to come now to--

VICE CHAIRMAN THOMAS: Yield to the gentleman.

COMMISSIONER HENNESSEY: Okay. It sounds like you had two disputes with Goldman. One was over the value of the securities, and one was over the process by which differences of opinion would be resolved. Is that fair?

WITNESS CASSANO: I don't--I think of it as all just one negotiation that we're having with them in the process.

COMMISSIONER HENNESSEY: Okay. Because where I'm coming to is I was frustrated by the back and forth with you and the Vice Chairman in the "not yet," which is you made certain assumptions about what would happen to housing prices. And what you said is that so far the attachment point hasn't been punctured? I think I've got the language right here.

WITNESS CASSANO: Pierced.

COMMISSIONER HENNESSEY: Pierced. Which sounds to me like you're saying the cash flows on these things that were rated AAA are still flowing?

WITNESS CASSANO: Yes.

VICE CHAIRMAN THOMAS: Mr. Chairman, yield the gentleman five minutes.

COMMISSIONER HENNESSEY: Thank you. And what I think I heard the Vice Chairman saying is, well just because the cash flows have flowed so far, that doesn't mean that they're going to continue to flow.

And so what I'm trying to get at is, now, later, now that we know more about the housing market, does your estimate of the value of those, has it changed? Has it declined in time?

WITNESS CASSANO: When I was answering the Vice Chairman's question it was a question about the fundamental analysis, and whether or not there had been or would be enough defaults to pierce the attachment level at which we had structured these deals.

COMMISSIONER HENNESSEY: And now we're in a different environment. Now we all have more information about what's actually happened in the housing market.

WITNESS CASSANO: Right.

COMMISSIONER HENNESSEY: Given that new information about the housing market, what do you think about the value of those securities?

WITNESS CASSANO: I still think that the underwriting standards that we had set will support those transactions--

COMMISSIONER HENNESSEY: My question is not about the underwriting standards. My question is: If you think of yourself in a profit-making environment back in time, if you could scribble a note and send yourself a message back in time and say here's what's going to happen to housing prices, would that information have changed your valuation then? Were you overly optimistic in what would happen to housing prices?

WITNESS CASSANO: I think what we--I'm sorry, I'm struggling with the confluence of the underwriting standards and the performance of default in the mortgage market, and then the question of value that you're ascribing to the portfolios. Because it's clear that these things don't trade anymore.

It's clear that the market is not trading, unless it's a government-guaranteed mortgage product. And so the market itself is ascribing--you know, it's in a disrupted state, and it still is.

So putting a value on these is a difficult proposition without the market--without market participation.

COMMISSIONER HENNESSEY: Right. And I'm not asking what you think the market would--how the market would value these. What I'm asking is, you were making assumptions at that point in time about the cash flows that would occur.

Have your estimates, now that you have more information about those cash flows, changed? Those future cash flows?

WITNESS CASSANO: I still think the cash flows from the underlying portfolios will meet the commitments, and these will--we will not pierce the attachment levels.

COMMISSIONER HENNESSEY: Okay. And in that judgment does PWC in effect have a different judgment about that?

WITNESS CASSANO: I don't have any contact with PWC.

COMMISSIONER HENNESSEY: But is that what they were saying in their statement?

WITNESS CASSANO: Commissioner Hennessey, I think we're conflating two issues.

COMMISSIONER HENNESSEY: Help me separate them because I'm struggling.

WITNESS CASSANO: And the issue that developed with PWC is we were creating a valuation model that we initially started to create in order to have a way of fundamentally reviewing collateral calls that came in.

It was then determined that that model that we were working on should be used for the accounting, or fair value of this overall portfolio. And that determination was made by the CFO of Financial Services.

We then, working with that model, kept trying to improve it and modify it as we moved along. So we had iterations. And I think we can say we had two main iterations of that model.

We had a basis that we used at the--

COMMISSIONER HENNESSEY: I'm sorry, I'm running out of time and I've got to interrupt. I get the point, which is they were criticizing your model rather than the results that are coming from the model, I believe.

WITNESS CASSANO: Right. The main criticism that PWC had was to an adjustment that was needed to be made to the model that I, sitting here today, still believe that model, that adjustment needs to be made. And because of the decision that PWC made, and because they were our auditors we had to abide by that decision, I believe that the portfolio has been understated on the books of the company, and severely understated on the books of the company, because the adjustment that they rejected was an adjustment between what a cash instrument would trade at and what a credit derivative would trade at, which has no cash involved. And there's a basis in those two.

COMMISSIONER HENNESSEY: So what I think I'm picking up from you is that you believe today that the original valuation of these securities was in fact and is still valid. And, that both what Goldman has said and the collateral calls that they have made are in some way, shape, or form just wrong?

WITNESS CASSANO: Yes. I believe that the models--other people's prices have overstated the losses associated with these portfolios.

COMMISSIONER HENNESSEY: Okay. Thank you.

CHAIRMAN ANGELIDES: Very good line of questioning. Mr. Wallison?

COMMISSIONER WALLISON: Thank you, Mr. Chairman.

One of the really interesting things about this whole area is how very few people seemed to see the risks of losses before they occurred. And I guess I would like to ask you to start--and this is addressed to you, Mr. Cassano.

What did you think, what do you think now was your major error here? Or, do you think, based on your line of responses to my colleague, did you make an error?

WITNESS CASSANO: If I was to think about--when I think about this, and I think about the single error that may have been made by me, I reflect on when I retired that I didn't volunteer--and volunteer more forcefully--to give up my position as the president of the company, but to become the chief clerk and negotiator for the collateral calls.

Because I believe that you need to have--these are negotiations among market participants, and you need to use, in periods of severe market disruption, you need to use all available rights that are there and allowed by you. And I believe I would have, as I did previously while I was the head of the division, negotiated for substantial discounts on the collateral calls. Therefore allowing the company to preserve that segment of cash. And then, even when the calamitous events of the capital markets seizing up in September, the three issues that faced AIG--the FP collateral calls, the securities lending portfolio, combined with the diminution in value of the insurance company's mortgage portfolios, that I would have gone to the counterparts and I think even then I would have been able to negotiate substantial discounts by using the rights available to us such that the Taxpayer would not have had to accelerate the $40 billion to the counterparts.

So--and I see that as the linchpin in the issues that we're talking about.

COMMISSIONER WALLISON: If I understand you correctly, you're saying that if you had been allowed to stay and work on this problem, the Taxpayers would not have been required to put up any money, at least for the question of the credit default swaps that you all had purchased? Is that correct?

WITNESS CASSANO: I--I don't want to say "any money," but I think I would have negotiated a much better deal for the Taxpayers than what the Taxpayers got. And I think I would have negotiated an appreciably better deal.

COMMISSIONER WALLISON: When did you decide to enter this market? And what analysis did you receive in order to do this?

WITNESS CASSANO: In the--I believe we entered into the market in the beginning of--in 2003. Like most things in the business, it was sort of an incremental strategy. You know, the whole capital markets' business is built on incrementalism and picking up on the last things that were done.

What my team did at the time was a thorough review of the structures of the multi-sector CDO market, the CDO market, and then the underlying collateral. And that was the review that was done.

And then from there, the business began to grow through 2003. I think it grew appreciably in 2004. We've talked about the growth in 2005, although that growth, as a rate of growth in the portfolio, was lower than the previous years. And we've spoken about exiting of the business at the beginning of '05 and running down the portfolio in '06.

COMMISSIONER WALLISON: We know that you were dealing with Goldman Sachs. Can you give us a percentage of your total portfolio that Goldman Sachs was consuming? And were they your initial customers? Or were they--did they come along later?

WITNESS CASSANO: I--well, as the Chairman stated in his remarks, I think Goldman was approximately $20 billion of our portfolio. And this specific portfolio was --

COMMISSIONER WALLISON: That would be about a quarter?

WITNESS CASSANO: Right.

COMMISSIONER WALLISON: But were they at the beginning, or did they come along afterwards?

WITNESS CASSANO: I actually think the--to the best of my recollection on this point, I think there were other banks that were initial participants.

COMMISSIONER WALLISON: You were protecting Goldman. Did you wonder why Goldman needed this protection if you were under the impression that this was almost a risk-free investment on your part?

WITNESS CASSANO: My understanding of what Goldman was doing was that they were continuing to warehouse and replicate the risk. And, while they had a pipeline to deals themselves, that they were laying off the risk with others as they kept accumulating new deals into their shop.

COMMISSIONER WALLISON: And they kept coming back to you. Was your pricing particularly good, do you think?

WITNESS CASSANO: I think our pricing was competitive with the market. I don't think that was...

COMMISSIONER WALLISON: What alerted you to the danger of these transactions in 2005? What kind of analysis did you do at that time which suggested to you and your staff that things were much different than they had been when you entered in 2003? It's only a two-year period.

What happened?

WITNESS CASSANO: Yes, sir. I think in the--just before, if you don't mind, just a little bit of context, is that there is a rapid growth curve in the CDO market and in the subprime market from 2003, 2004, 2005, 2006, and even '07, and this market is moving up very quickly, growing exponentially.

My head trader came to me in 2005--this is Andrew Forster, and he said to me that he was beginning to become concerned that there was a potential that underwriting standards would begin to slip; that we would not be able to meet our underwriting standards in this project.

We discussed it. Obviously I asked Andy if there was anything we needed to do at this moment, and he said that what he really would like to do is go and do more research on this issue.

And we talked about who would be the right people to do this. We chose Al Frost, who is one of the marketers of this business in North American, Professor Gorton, who worked with us intimately on this product type, and Andrew went--Andrew was based in London, went to the States, and they met with a variety of people in the market.

They met with loan originators, portfolio managers, investment banks, and banks, discussing the subprime market and this potential for increasing--

decreasing standards and underwriting issues.

When Andrew returned is when he gave me his analysis of the market. And that's what led to our December decision. I think the groups were pretty split along the way in any of these kinds of things. There were those who still thought that the business was good to do. There were those who thought, gee, the business is good to do, but I sort of understand some of the arguments. To Andrew, who--Andrew Forster who said, look, I think we need to get out.

And I sided with Andrew on this, and that was when we took the decision to exit the business.

COMMISSIONER WALLISON: But you didn't actually get out. You continued to enter these contracts.

WITNESS CASSANO: Right.

COMMISSIONER WALLISON: Was that because you were obligated in some way to do it?

WITNESS CASSANO: We had a commitment of a pipeline of these transactions that we had been working on. They have a fairly long gestation period. We were working through that pipeline.

When we took the decision to exit the business, we discussed the pipeline and discussed whether or not we needed to adjust standards. What do we need to do?

The team believed that they were ahead of the curve in sort of identifying, and I think they were probably ahead of most in identifying this potential for underwriting standards slipping.

And then we also took a review of the portfolio that we had. Because obviously the question is: Well, if you see this are you sure you don't have any issues in what you own now? And we did that review.

And we were comfortable with the underwriting standards that we had committed to. And those portfolios, as they are now in Maiden Lane, would see us through the test of time.

I think I want to make one thing clear, if I can. During this process in the review, and even in the period where we were beginning to ramp down the pipeline, we never let our underwriting standards slip. We also maintained the rigorous underwriting standards in which we made sure, not only the FP teams review and analysis of these transactions, the ongoing review of the book of business that we had, but also we always made sure that we had the approval on all of these transactions from a second set of eyes and a second credit team at the AIG parent.

COMMISSIONER WALLISON: The puzzling thing about this is that you didn't say just now that you are obligated to continue to buy--to take on this risk. Did you feel you were contractually obligated to take on the risk?

You decided--let me repeat what I thought I heard you say. You said in 2005 you decided, after some debate, that you would terminate going into this market any further probably because you thought underwriting standards were beginning to decline in the market and you didn't want to take any further risk.

But were you contractually obligated to add what I think is something like $30 billion more in risk during the next couple of years?

WITNESS CASSANO: Remember, Mr. Commissioner, the decision that we took was the decision to exit the--

COMMISSIONER WALLISON: Go ahead.

WITNESS CASSANO: Everybody okay?

COMMISSIONER WALLISON: Yes.

WITNESS CASSANO: The decision that we took was the decision to exit the subprime underwriting market. We have--we did continue to underwrite prime mortgages, and we made sure that those mortgages--you know, that the underwriting standards for that business continued.

So the $30 billion number that you're referencing I think is a combination of two different products. I think it includes some products that had subprime in them, and that was the portfolio that we ran down. But it also includes transactions that had prime securities, and it included transactions that had commercial real estate in them also, I believe.

So coming back to the decision that we made, and whether or not we were contractually obligated, no, we were not contractually obligated. This was a business decision that we made in 2005 because we thought we could still run through a pipeline of deals that we were building up, and we would be able to still maintain our credit standards. And I believe we never let our credit standards slip on this issue.

Because what we say was the potential for leakage, or slippage in these contracts; not that the underwriting standards had slipped. Remember, this is 2005, and I believe as we move forward in the more problematic vintages of '06 and '07 is where most of the problems in the housing market took place.

COMMISSIONER WALLISON: Yes, but that's when you were buying 50 percent more than you had taken before. Wasn't that true? In 2006 and 2007?

WITNESS CASSANO: Again we should look at the portfolio. One of the issues is to look at the underlying portfolios. Look at each portfolio individually. And look at the asset classes that are composed of these portfolios. And then we can see how we maintained our underwriting standards through this process.

And I think the point I'm making is, 2006 and subprime, when running through the pipeline to 2006 it was accessing mostly 2005 vintage mortgages at that time. And those mortgages still had reasonable house price appreciation, good covenants in them, and where the underwriting standards had not yet deteriorated.

COMMISSIONER WALLISON: I think one of the things that sets AIG apart from others is that you took only one side of a very substantial book. Are you aware of others, other than the monolines, that did something like this? And did you, if you were not aware of it, or if you were aware of it would you tell us about others who might have been doing this in the market?

WITNESS CASSANO: Nobody comes to mind right now.

COMMISSIONER WALLISON: And if not, then were you--why did you suppose that you had done a better analysis of this than, say, Goldman Sachs which was relying on you to provide it with some protection?

WITNESS CASSANO: What we relied upon was the underwriting standards that we had. I think we had a rigorous set of standards. As I've said before, the standards were set by the people at AIG. I think my team did a very good job on our fundamental analysis. And I believe these portfolios are standing the test of time today when it comes to credit risk analysis, as they are paying back the Taxpayer in Maiden Lane III.

And these portfolios have survived, and are paying, and are performing in one of the most difficult times in the capital markets in most of our lifetimes.

COMMISSIONER WALLISON: So would you--I'm wondering whether what you are saying is that if you had been allowed to remain in charge of these portfolios, and if they hadn't in fact--if they were not going to depreciate very substantially as you think, as you're saying now they would not have, and have not, do you think that AIG could have survived without any support from the government?

WITNESS CASSANO: It's a big question, because there were other issues besides this portfolio that--

COMMISSIONER WALLISON: But let's leave the other part alone and just talk about the question of credit default swaps.

WITNESS CASSANO: Okay. So--

COMMISSIONER WALLISON: Just one minute?

VICE CHAIRMAN THOMAS: Yield the gentleman an additional two minutes?

COMMISSIONER WALLISON: Two minutes.

VICE CHAIRMAN THOMAS: Okay.

WITNESS CASSANO: I think your question is, if I remained in the company?

COMMISSIONER WALLISON: Yes, of course.

WITNESS CASSANO: Right, would I have been--

COMMISSIONER WALLISON: If you had continued to be in charge of this subject.

WITNESS CASSANO: If the company had left me--I believe, or one of the things I question, is if I was able to stay in the company as the chief negotiator of the collateral calls in these transactions, I think I would have used all the rights and remedies that were available to us in the negotiations. And in that process, I think we would have not had to forward, or accelerate the $40 billion that the government did at the time, and I think I would have been able to negotiate substantial discounts from the collateral calls that had been made to date.

And I reflect on that only because I was able to do it in the six months from July to March of '08 that this business was being--when we were negotiating the collateral calls while I was there.

COMMISSIONER WALLISON: I'm trying to--this is a totally hypothetical question, and so I want you to leave out the other decisions that were made by others about the purchase of other assets that turned out to be rather poor. I'm trying to focus in on the credit default swaps and your views of what would have happened if that was the only bad investment that AIG had made, can you say that there is a chance--if you put a percentage on it, you're a business person, you can probably put percentages on it--can you say that the credit default swap portfolio that AIG had purchased under your administration would have caused the company to suffer losses or not? What kind of percentage would you put on that?

WITNESS CASSANO: I think our portfolio would have set--would--I think if we're working on a hypothetical--

COMMISSIONER WALLISON: Yes.

WITNESS CASSANO: --we have to remove the fair value concept and we just look at the performance of the portfolios themselves, if we're looking at the portfolios performances of themselves, I believe these portfolios will perform over the test of time. And I believe that no losses will be incurred at the attachment point that we underwrote.

COMMISSIONER WALLISON: Thank you.

CHAIRMAN ANGELIDES: Good. I was going to defer to the very end, but since this issue has been raised by Mr. Hennessey and Mr. Wallison, I am just going to pursue it just for a minute or two more and try to go very quickly here in respect to my other members. But this goes--you essentially make the point, a couple of points here, which is that obviously the crisis, with respect to AIG, was driven by these mark-to-market values. And secondly, by the failure of AIG to negotiate reasonable settlements of those.

And I will say that the chronology that I entered into the record--and this is in the way of absolution--appears to indicate that there's some pretty hard fighting with Goldman Sachs in particular through March of 2008, and then after.

I used the analogy when I started here: Was there a cheetah hunting down the weak member of the herd? It appears somewhere in March of 2008 the Cheetah may have caught the member of the herd.

I am trying to get to this very issue of was a first domino pushed over? Or did someone light a fuse here? And I just want to call out a couple of things.

I mean, Goldman appears to have been--and this is, as you said, they were hard negotiators, but they were below everyone else's marks. They were much more aggressive. Other entities didn't make calls that were similar. The price scene, as you look at the chronology, was much higher. And in fact at one point SocGen makes I think a call because it appears that Goldman's given them their marks. They bring them to you. You dispute them. They go back away.

Right after that first collateral call on July 30th, Mr. Forster, who will be with us tomorrow, tells another member of AIG Financial Products that the Goldman margin call, quote, "hit out of the blue, and a f[ing] number that's well bigger than we ever planned for."

Goldman's prices were, quote/unquote, "ridiculous."

On August 1st, Mr. Athan writes to Mr. Forster that Goldman was, quote, "not budging or acting irrational." On August 2nd, this is when you get Goldman to back down. Quote--this is an e-mail from Mr. Forster to I think you, "They" Goldman, "realized they needed to use mids not bids" meaning they needed to use the mid-point not just the bid price.

Mr. Forster on August 16th, 2007, says: I've heard several rumors now that GS--"GS" meaning Goldman--is aggressively marking down asset types that they don't own so as to cause maximum pain to their competitors. It may be rozbush, but it's the sort of thing GS would do.

You said I think on September 11th there's another communication between Mr. Athan and Mr. Forster saying that SocGen NY said they, quote, "received marks from GS on positions that would result in big collateral calls but SG disputed them with GS."

But what I get in a flavor here--and there's another e-mail from you saying that SocGen was, quote, "spurred by GS calling them." So in this opaque market where there's no open trading, is it possible that the mere act of driving down prices drives down prices?

WITNESS CASSANO: Yes.

CHAIRMAN ANGELIDES: Okay. And your contention is that, had you not had this driving down of mark-to-market prices for which there was no real market, you might not have faced the liquidity challenge at the end, if in fact AIG had continued to contest those using all their remedies?

WITNESS CASSANO: Can I say, basically, yes.

CHAIRMAN ANGELIDES: Okay. Okay, thank you very much, members, for allowing me to do that. I just wanted to get some clarification on that matter.

VICE CHAIRMAN THOMAS: Mr. Chairman?

CHAIRMAN ANGELIDES: Yes--

VICE CHAIRMAN THOMAS: Just to--

CHAIRMAN ANGELIDES: --and thank you, Mr. Vice Chair, for your courtesies today, too.

VICE CHAIRMAN THOMAS: --and wants to understand what's going on, the way I would describe it to someone else, or the way I would ask the question is: Do you think Goldman was out to get you?

WITNESS CASSANO: No.

VICE CHAIRMAN THOMAS: No?

WITNESS CASSANO: I don't know what was--

VICE CHAIRMAN THOMAS: Were they out to get AIG?

WITNESS CASSANO: I don't know what was going on in Goldman's side, and what they were--

VICE CHAIRMAN THOMAS: Had they done some of the same things, and they needed money, and they were going to get it out of you?

WITNESS CASSANO: Vice Chairman Thomas, I don't know what was on the other side of the Goldman trades. I do know that Goldman kept coming to the table with us, and I do know that as they came to the table--and this happened over a long period of time--

VICE CHAIRMAN THOMAS: Right.

WITNESS CASSANO: --they kept reducing their collateral calls.

VICE CHAIRMAN THOMAS: I understand that. And then you left AIG, I guess asking why you left, or why they wouldn't keep someone who was fairly aggressive in their corner--and clearly the negotiation structure changed after you left--is a question I will ponder.

WITNESS CASSANO: Are you asking me why I left?

VICE CHAIRMAN THOMAS: I don't think I'm supposed to, but I'm pondering it.

WITNESS CASSANO: Okay. Sorry, sir.

(Laughter.)

VICE CHAIRMAN THOMAS: So what would you ponder?

(Laughter.)

WITNESS CASSANO: Well if we can ponder this together--

(Laughter.)

VICE CHAIRMAN THOMAS: Just you and me--

WITNESS CASSANO: And a couple of cameras.

VICE CHAIRMAN THOMAS: Well--

WITNESS CASSANO: I was at the--after the Material Weakness finding, and the disallowance of the Negative Basis Adjustment in our modeling effort, at the end of that week Mr. Sullivan asked me to come and see him. And as I think he said in his testimony, he told me that changes needed to be made. He didn't think I would be happy with the changes that needed to be made. And he suggested that I retire. And I did.

VICE CHAIRMAN THOMAS: Okay. Maybe you should have been at a higher level. I'm through.

CHAIRMAN ANGELIDES: We will now go to the next--I will say one thing. One thing we will want to follow up on you, because members have asked, is this issue of you continuing to write CDS. We won't take time now, but just be on notice that we will--the staff has indicated that CDS continued to be written on what was called "prime RMBS," and at least in our review it looked like that included Alt A, interest-only, no-doc, low-doc. So I think we're going to want to visit that issue to get clarity. Pay option ARMs, and Home Equity Loans that included subprime. So we want to get clarity about whether there really was a stop.

All right. Senator Graham?

COMMISSIONER GRAHAM: Thank you, Mr. Chairman.

I want to use my time to talk about risk management in four buckets. One is what I would call "situational awareness." Another is "history." Another is "personnel." And then "organizational structure."

On the situational awareness, it would seem to me, and I will state as a lay person in this area, that there were certain advantages to doing business with AIG in this area that weren't available from other competitors in the marketplace.

One was that you had in your contracts this provision that required you to put up collateral if there was a reduction in the market value of the underlying assets.

And, two, the fact that you could put up collateral. I understand that some of your competitors, particularly the monolines, were not allowed to put up collateral until there was a default.

In light of that, it would seem to me that you would be in a very competitive position in terms of the premiums to coverage that you would offer, since you had contractual benefits from the side of your purchasers that others did not have. Is that a correct hypothesis?

WITNESS CASSANO: I know that we were able to pledge collateral. I'm not sure what others could do.

COMMISSIONER GRAHAM: Apparently, I've been told, because of certain conditions from the rating agencies the monolines were not allowed to post collateral until after default.

WITNESS CASSANO: Okay. I'll accept that, yes.

COMMISSIONER GRAHAM: Well if that's the case, then what I don't understand is, it seems as if you were actually significantly underpriced, according to this chart that we have about one particular security, which was the Abacus--

VICE CHAIRMAN THOMAS: Senator, just one moment while we get this chart--

COMMISSIONER GRAHAM: It's number four.

VICE CHAIRMAN THOMAS: --so that others can see.

COMMISSIONER GRAHAM: Yes, okay. This is the Goldman Sachs Synthetic CDO Abacus 2004-1. According to this chart, AIG would sell you $1.76 billion of coverage for an annual premium of $2.1 million. Is that correct?

WITNESS CASSANO: I'm going to accept your premise here. I just haven't--I don't know these numbers.

COMMISSIONER GRAHAM: Well, then you'll just see the others selling the same product, that TCW, you could buy $22.5 million for $384,000; and with GSC you could buy $7.5 million for $510,000. I mean, these are dramatically different ratios of premium cost to amount of coverage.

You indicated that you thought that your premium charges were competitive with the marketplace, selling what looks like to be a superior instrument for the reasons that I cited earlier, yet you're getting dramatically less per-dollar of coverage than others.

Is this an accurate reflection of what the marketplace was? And if so, it does not appear as if you were competitive with the market.

WITNESS CASSANO: I would need to spend some time and understand what this chart is exactly.

COMMISSIONER GRAHAM: Then, unless Mr. Lewis or Mr. Sullivan wishes to comment, I will defer and if you could give us a written response to--

WITNESS CASSANO: I'm more than happy to work with your staff on this, yes.

COMMISSIONER GRAHAM: All right. The second thing is history. In February of '08, Price Waterhouse Coopers made a number of recommendations to the AIG Board Chairman Robert Willumstad. One of those was what I would call "history."

They said that a factor in the current situation regarding the super senior credit default swaps was a lack of leadership, unwillingness to make difficult decisions regarding FP in the past, and inexperience in dealing with these complex matters.

Mr. Sullivan I assume as the CEO. Mr. Robert

Willumstad communicated PWC's concerns to you?

WITNESS SULLIVAN: Sitting here today, sir, I don't recall Mr. Willumstad discussing that with me. But as Mr. Cassano articulated earlier, shortly after the filing of that 8K we recognized that changes needed to be made within AIGFP. And during a very short meeting between Mr. Cassano and I, we concluded that Mr. Cassano would retire.

COMMISSIONER GRAHAM: According to this, in terms of history, it said there had been an unwillingness to make difficult decisions regarding FP in the past. Do you--had this--were there issues that had been surfaced previously that had not been dealt with?

WITNESS SULLIVAN: As I said, sir, sitting here today I can't recall Mr. Willumstad discussing that with me.

COMMISSIONER GRAHAM: Were you aware, independently of what Price Waterhouse told the Chairman of the Board about these problems at FP in the past?

WITNESS SULLIVAN: Without knowing the specifics of what motivated their comments, sir, I can't.

COMMISSIONER GRAHAM: Okay, number three is the area of personnel, where the PWC comments said: Ensuring that people have the skills, including leadership, execution, and change management skills and ability to hold people accountable, and experience in dealing with large-scale improvement and change efforts.

You've informed us about the decisions relative to Mr. Cassano. Were there any other personnel changes that you made between February of '08 and September of '08?

WITNESS SULLIVAN: Just for the record, sir, I left in June, so I won't respond to that period in time. Following Mr. Cassano's agreement to retire, Mr. Dooley, who was the head of the Financial Services Sector, and Mr. Cassano reported directly to him, took over as interim CEO during that period of time as we went out to look for a new head of AIGFP.

Sitting here today, I can't recall any other changes during that period of time. But there may have been others who came or left, but I simply can't recall.

COMMISSIONER GRAHAM: But from February to June of '08, in light of this comment about your personnel, you made one change? Is that right?

WITNESS SULLIVAN: As far as AIGFP is concerned, that's--

COMMISSIONER GRAHAM: I mean what about the rest? I don't think these comments were particularly intended to be limited to FP. Were there any major changes made elsewhere in the company?

WITNESS SULLIVAN: Sitting here today, one that I recall is we changed the reporting line of Mr. Lewis from the CFO to myself.

CHAIRMAN ANGELIDES: Would you like a couple of extra minutes, Senator?

COMMISSIONER GRAHAM: Yes.

CHAIRMAN ANGELIDES: Two minutes to the Senator.

COMMISSIONER GRAHAM: Okay, that gets to the fourth issue, which is the organizational structure. PWC said there was a need to address the reporting lines for ERM, the lack of access that ERM had into units like AIG Investments and others, and that Lewis had not aggressively addressed these issues in the past.

One of the matters that came up earlier was the fact that, while one unit of the company had adopted at least a stated policy that they were no longer going to be purchasing these types of securities, that another unit, AIG Investment, increased its holdings by some $50 billion.

Was the fact that there was no access by the ERM to the AIG Investment Unit a factor in the failure to communicate what one unit of the company had decided was an excessively risky investment to another side of AIG?

WITNESS SULLIVAN: I can't answer the question as to why they decided to continue investing there, but I do believe to the best of my knowledge that the information flow between ERM and AIG Investments was there.

I think the Credit Risk Committee had oversight, and I think the data flow and Mr. Lewis would be much more able to respond there, was there.

COMMISSIONER GRAHAM: In light of--

WITNESS SULLIVAN: But following this period of time, sir, it's also probably that I put Mr. Lewis on the Executive Committee of the company, and also I've, just sitting here, recalled that I did ask the CFO to take over senior management responsibility for the Financial Services Division at the time, shortly before I left.

COMMISSIONER GRAHAM: In December of 2007 at the Investors Conference Day, you made a statement which included this quotation, AIG took in the U.S. residential housing sector was, quote, "risk supported by sound analysis and a risk management structure that allows AIG to put our capital at work in an efficient manner."

Two months later, on February 6th of '08, this report by PWC was given to your Chairman of the Board with multiple critical comments about your risk management. Did that cause the company to reassess whether it had in fact a risk management structure that allowed it to put its capital to work in an efficient manner?

CHAIRMAN ANGELIDES: Right. And then can we answer the question and move on? Answer the question, please.

WITNESS SULLIVAN: No, sir. I truly believe everything I said at the December Investor Call, based on all the information I was receiving.

COMMISSIONER GRAHAM: And that report by Price Waterhouse 60 days later didn't cause you to reassess that?

WITNESS SULLIVAN: With the utmost respect, sir, I'm not sure what report because I don't think I ever saw that report. I don't think it was addressed to me, was it, sir?

COMMISSIONER GRAHAM: No, it was addressed to the Chairman of the Board.

WITNESS SULLIVAN: Thank you. So I'm not sure I ever saw that report.

COMMISSIONER GRAHAM: Thank you.

CHAIRMAN ANGELIDES: Mr. Georgiou--and actually, I think on this very point, perhaps.

COMMISSIONER GEORGIOU: Yes. Thank you, Mr. Chairman. I actually want to make one point, and I'll come right back to it, if I can.

Mr. Sullivan, you were paid $107 million from 2003 to 2008, including $47 million during 2008? Is that correct, roughly?

WITNESS SULLIVAN: I have no knowledge or recollection of those numbers whatsoever, sir.

COMMISSIONER GEORGIOU: You don't remember how much you made?

WITNESS SULLIVAN: I certainly don't recall earning that amount of money, sir.

COMMISSIONER GEORGIOU: That's what our staff established.

CHAIRMAN ANGELIDES: These are from public filings.

COMMISSIONER GEORGIOU: These are from public filings of the company.

And, Mr. Cassano, you were paid $280 million from 2000 to 2007, correct?

WITNESS CASSANO: I don't know the periods, but I made over $300 million during my career at AIG.

COMMISSIONER GEORGIOU: Okay, including a million dollars a month during the six months after you retired as a consultant?

WITNESS CASSANO: Yes.

COMMISSIONER GEORGIOU: Mr. Lewis, you're still the Chief Risk Officer, correct?

WITNESS LEWIS: Yes.

COMMISSIONER GEORGIOU: And you received about $15 million in total compensation from 2004 to 2008? That's what our records reflect.

WITNESS LEWIS: I believe the compensation I received--I don't know the total of that number, but it would have included cash and stock compensation valued at the time.

COMMISSIONER GEORGIOU: Right. And Mr. McGinn, I take it, is still the Chief Risk Officer, is he?

WITNESS LEWIS: Yes, he is.

COMMISSIONER GEORGIOU: And he was during this period?

WITNESS LEWIS: Yes. Mr. McGinn was appointed Chief Credit Officer in the summer of 2004 when I was appointed to the Chief Risk Officer position.

COMMISSIONER GEORGIOU: And he's the one, is he not, who suggested that the period of time--that the increase, the 50 percent increase, in exposure to these derivatives after the time that you decided--the exposure that was created by AIG Investments after the time that AIGFP decided to stop funding them, was akin to Nero playing the fiddle while Rome burned. That was his comment, was it not? Do you recall that?

WITNESS LEWIS: I have seen an e-mail from Mr. McGinn where that statement was made. I recall that it did not refer to FP, but to other parts of AIG.

COMMISSIONER GEORGIOU: To the AIG Investments, which was continuing to expose the company to these types of risks after the decision was made by FP no longer to go forward in that regard.

Now I guess my question is really to Mr. Sullivan. You were there until June of '08. Did you ever consider replacing the Chief Risk Officer, Mr. Lewis, or the Chief Credit Officer, Mr. McGinn, in light of what occurred? Which included, of course, $130 billion of government assistance to AIG, a commitment of up to $52 billion more, and the loss by shareholders of $147 billion of market capitalization, which is what AIG was worth at the end of '07, and it's worth nothing now, effectively.

Now did you ever think that maybe the Chief Credit Officers or the Chief Risk Officers ought to be replaced?

WITNESS SULLIVAN: Not up until the time I left the organization, to the best of my knowledge, sir.

COMMISSIONER GEORGIOU: Okay. And did anybody try to claw back any of this compensation from any of these people, in light of the failures that occurred? To the best of your knowledge, did any executive ever give back any of the money that they made on the basis of the products that were created that caused the company ultimately to fail?

WITNESS SULLIVAN: To the best of my knowledge, no, sir.

COMMISSIONER GEORGIOU: Okay. And did the Board of Directors ask you, as CEO, to give back any of your compensation in light of your leadership of the company during this period?

WITNESS SULLIVAN: To the best of my knowledge, no, sir.

COMMISSIONER GEORGIOU: Okay. All right, I'd like to turn, if I could, then to a discussion of the December 5th of '07 representation that there was a $1.5 billion estimated unrealized valuation loss on the super senior credit default swap portfolio.

I would like to introduce into the record, if I could, there's a three-page document, which I've written all over but I'm sure we'll introduce into the record a clean copy, which is our staff analysis and summary of this particular report to the public.

CHAIRMAN ANGELIDES: With attachments?

COMMISSIONER GEORGIOU: With attachments, please.

CHAIRMAN ANGELIDES: So be it, entered into the record, or whatever they say here in Congress.

COMMISSIONER GEORGIOU: Yes.

Now during this December 5th of '07 investor day conference, Mr. Cassano reported that there was an estimated $1.5 billion unrealized valuation loss on the super senior credit default swap portfolio, and didn't disclose at that time, and nobody disclosed from the company to the investing public, that that included two accounting adjustments, one of which was something called a negative basis adjustment of $3.6 billion, and something else called a "structural mitigant adjustment" of $732 million.

Do you recall that discussion, Mr. Sullivan?

WITNESS SULLIVAN: Sitting here today I recall Mr. Cassano during that presentation giving an update of the unrealized loss valuation number following the third quarter number we'd issued some weeks earlier.

COMMISSIONER GEORGIOU: Right. Which was $1.5 billion, which was disclosed to the public and the investing public, at that time.

WITNESS SULLIVAN: If that was the cumulative number.

COMMISSIONER GEORGIOU: And the fact that there were adjustments associated with that was not disclosed. And at that time, had those adjustments not been made the unrealized loss would have been $5.9 billion as of December of '07, if you would add those numbers back in.

Now it turns out that two months later, on February 11th of '08, AIG issues a new Form 8K in which it reports the adjustments that were not disclosed on 12/5/07, and that it expected to include the structural mitigant in the unrealized valuation loss but not the other matter, that negative basis adjustment, which is another accounting adjustment, because it could not reliably quantify the judgment.

Now at that time, the unrealized loss was estimated to be, if I'm correct here, $11.9 billion--$11.1

billion. So it jumped up, between December 5th, between your estimate of it at December 5th of '07 from, at one point, $5 billion to $11.1 billion, which you reported in February that you had actually had an unrealized loss in December of $11.1 billion.

In response to that, of course, the market for the stock cratered. It dropped $6 a share, from $50 to $44, an 11.7 percent decline. And this representation to the public was a subject of the Securities and Exchange Commission and Department of Justice investigations, and in the course of which it appears that Mr. Cassano--that, Mr. Sullivan, you testified to our staff during our investigation that you never learned of the adjustment until February of '08.

Mr. Habayeb said he learned of the adjustment in late January of '08. Mr. Bensinger said that he learned of the adjustment in late '08, and he learned it from Mr. Habayeb.

Mr. Cassano, however, said that the negative basis adjustment was disclosed to all of these executives and to Price Waterhouse Coopers before the December 5th, '07, Investor Day Conference, and several documents corroborate that contention.

CHAIRMAN ANGELIDES: Two minutes.

COMMISSIONER GEORGIOU: Okay. Thank you.

Now we're clear that these negative basis adjustments wasn't disclosed on 12/5, and that the increase of your estimate as of 12/5 changed between 12/5 to February 8th from $1.5 billion to $11.1 billion in loss.

And I just want to ask you, Mr. Sullivan, about some documents. Because there's a document that's attached to this summary which are typed notes prepared by Price Waterhouse Cooper of a November 29th, '07, meeting, which is a week before you told the public that this number was $1.5 billion, which says that: Cassano said that the valuation of the credit default swap book included a potential need to quantify the CDS spread. I won't get into all the technicals, but the typed notes also reveal that if AIG used Goldman's values there could be an impact of $5 billion for the quarter.

And you're quoted as saying, Mr. Sullivan, that this would, quote, "eliminate the quarter's profits entirely."

Mr. Forster, who was at this meeting, told the FCIC staff that CEO Sullivan responded to the $5 billion comment by saying he was going to have, quote, "a heart attack." But Mr. Sullivan told FCIC staff that he does not remember this part of the meeting, and he told FCIC staff that he does remember a later part of the meeting that does not include AIGFP executives.

Can you tell us what you remember about the "heart attack" comment, and why it is that the public was told that this loss was $1.5 billion when really it was closer to $5.9 billion in December?

WITNESS SULLIVAN: Well thank you, Commissioner. First of all, I can't help you with the "heart attack" comment because I have berated myself over many months to try and recall the first part of the discussion of that November meeting. I've been asked many times, and unfortunately I simply can't recall. But you may rest assured I have berated myself over that.

On the second part of your question, the first that I recall hearing about negative basis points and the lack of being auditable was, to the very best of my knowledge, in early February.

COMMISSIONER GEORGIOU: Okay, all right. I'm just going to leave it there. The PWC partner's, Henry Daubeney's, handwritten notes from the November 29th meeting includes a notation that Mr. Cassano said we need to quantify the CDS spread to the cash. Could be 10 percent, but subject to change.

And that was the modification that you utilized as the negative mitigation to effectively reduce the $1.5 billion loss, unrealized loss, to significantly--to report that loss to the public, when in fact just two months later you've decided that the loss is $10 billion more, as of December of '07.

And also on 12/1 of '07 Mr. Cassano sent an e-mail to Messrs. Habayeb, Dooley, Bensinger, Lewis, Herzog, and McGinn in which he wrote that: We make an adjustment for cash versus CDS we derive from the market, and that this adjustment was discussed with PWC, with Price Waterhouse Coopers, and CEO Sullivan.

So all of these documents, which our staff discovered, suggest very strongly that the representation that was made on December 5th was shaved, effectively, as to the unrealized loss on these CDS. And, that ultimately you ought to have disclosed to the public a more accurate number.

And I guess I would suggest to you that this appears that AIG was as forthcoming to the investment public about its losses at that time as British Petroleum has about the amount of oil that's been spilling into the Gulf.

I mean, it's astonishing to me, and I suppose I really ought to ask Mr. Cassano: Does this reflect your recollection? Did you disclose this to Price Waterhouse Coopers and to your senior management in December?

CHAIRMAN ANGELIDES: All right, and then we're going to move on. Mr. Cassano, quickly, because we want to go to Mr. Holtz-Eakin.

WITNESS CASSANO: My recollection of the meeting, I don't remember the comment of Mr. Sullivan saying I'm having a heart attack. I do remember that I was asked about projecting what I thought the potential loss could be as of December 31st.

So I was asked to look forward. And we were in that meeting initially discussing the Goldman collateral call with senior management and PWC. When I was asked to project the numbers that we had in front of us with a Goldman call, and I did a very back-of-the-envelope calculation and said, look, let's look at this. Just calculate this out. Multiply it by the notational--the amount of the book, four times what the number is, and it could be as high as $5 billion.

I do remember that Mr. Sullivan said that may wipe out the quarter. I said, it is what it is. And he said, yes, I understand. And we went on.

COMMISSIONER GEORGIOU: Right. But then you reported it as $1.5.

CHAIRMAN ANGELIDES: Let's move on. We're out of time.

COMMISSIONER GEORGIOU: The point's been made.

CHAIRMAN ANGELIDES: Yes, the point has been made, and effectively.

Mr. Holtz-Eakin.

COMMISSIONER HOLTZ-EAKIN: Thank you, Mr. Chairman. Thank you, gentlemen, for taking the time to do this with us today.

One of the disadvantages of going last is that, when you don't understand things you prove that you're really very slow, because it's been asked and I still don't quite understand the story that I've heard today, which is that that Taxpayers are out hundreds--over $100 billion, but if I get the collective testimony right, you, Mr. Cassano, ran a Financial Products Division that had such impeccable underwriting standards that the CDSs would never have shown cash flow outflows, and indeed the economic value of the underlying securities is 100 cents on the dollar to this day, which means that for the remainder of the company the crash of AIG was being an unfortunate bystander of the freezing up of commercial paper markets so you couldn't meet your short-term liquidity needs? And this is all just a big accident?

Or, maybe it's because of large losses in the securities' lending area, which seemed to go on, Mr. Lewis, despite the fact that the Financial Products Division had clearly signaled that it was unwise to continue to be in that market.

And I still have not heard a clear answer of how the judgment was made to continue to stay in that? So for the record, one more time, why is it that, after Financial Products and the company as a whole had reached a decision that it was after 2005 not going to be in subprimes to the degree that you allowed Securities Lending to go forward?

WITNESS LEWIS: I believe your question refers to the investments by AIG Investments in residential mortgage-backed securities?

COMMISSIONER HOLTZ-EAKIN: Yes.

WITNESS LEWIS: The concerns that we had and discussed in the corporation about the deterioration of underwriting standards and lending practices in the banking industry were discussed with the Investment area.

And as I said I think in my testimony, or earlier, the Investment Department, who was tasked with investing AIG's cash, and also specifically the securities' lending business, they discussed those concerns with us. And there was a compromise reached.

The Credit Committee of AIG agreed to allow up to a certain amount of investments in residential mortgage-backed, or asset-backed securities, which included residential mortgage-backed securities.

And the tradeoff that the Investment Department determined was to purchase only the highest quality investments available in the marketplace. And furthermore, their investment research people were concentrating on trying to select those securities by loan originators, by sponsors, by managers that they thought had a lower percentage of concern in the area of underwriting practices in the originating banks.

But it was a tradeoff, a balancing of risk and return opportunity, and there was a tradeoff made.

In the FP situation, it was a different business. The super senior credit default swap business was one of--

COMMISSIONER HOLTZ-EAKIN: But to be clear, it's a different business but it is still conditional on the underwriting, the origination standards in the mortgage business. And in the end, that was what FP identified as a weakness and said let's get out, and you decided to go ahead.

WITNESS LEWIS: The underlying assets were clearly very similar, and therefore correlated. However, the risk profile that was taken in both of these areas was quite different.

COMMISSIONER HOLTZ-EAKIN: The other part of this, to just listen, is quite puzzling. And this is for you, Mr. Sullivan.

Why the siloed and disconnected risk management? The liquidity management over with the CFO. Mr. Lewis not, or his predecessors as chief risk officers not engaged in that. When in the end it was the combination of liquidity risks and these losses in lending, leaving aside Financial Products which is still evidently 100 cents on the dollar, that did your company in.

In retrospect, did you have adequate risk management and coordination across the units?

WITNESS SULLIVAN: Well I think as Mr. Lewis responded to your earlier question, the dialogue took place with the Credit Risk Committee. Nobody brought to my attention that the Investment Company was doing something that it should not have been doing.

And I think as he articulated, there was dialogue between the Credit Risk Committee, ERM, and the AIG Investments.

COMMISSIONER HOLTZ-EAKIN: Well I'll just take the liberty of making an observation, because Commissioner Thomas is not here, but that in the end you are the head. And the fact that they're having a dialogue doesn't excuse you from the responsibility to make sure the enterprise is not at risk as a whole. And that's just an observation.

One of the things I find amazing about this is that there are evidently no limits placed on the amount of CDSs that can be--the total amount of insurance that can be outstanding.

Mr. Lewis, how did you get comfortable with the idea that FP could have an unlimited amount of CDS exposure?

WITNESS LEWIS: AIG Financial Products did not have an unlimited amount of capacity to write this business. The--

COMMISSIONER HOLTZ-EAKIN: Did it have a dollar limit?

WITNESS LEWIS: It did have a dollar limit, but not in the--not in the dimension of total notional size.

As Mr. Cassano mentioned earlier, the underwriting criteria and analysis that was done by FP was to determine, based upon the underlying risk of the assets in a CDO pool, what the--what a loss could rise to under a very stressed situation.

And so we agreed on a set of criteria that said that if Financial Products wished to incur risk in the structure that exceeded a certain confidence level, given the stresses that we put on those portfolios, that we would limit the total amount of exposure that FP could incur for that amount that exceeded that worst-case scenario that we utilized. So there was a limit. It just was not in the dimension of total notional amount.

COMMISSIONER HOLTZ-EAKIN: Thank you. The other thing I've found puzzling is, Mr. Cassano, you evidently were a one-man army against an invasion of Huns wanting collateral posted. And your performance evidently staved off what afterwards turned into a real rush on the cash.

That would appear to make Mr. Cassano a very, very substantial and important part of this process. So the institutions at risk, when he is unable to perform his duties--it makes me wonder, Mr. Sullivan, why did you not retain him? Why was he replaced?

WITNESS SULLIVAN: Well as I testified earlier, following the issuance of the 8K we determined that changes needed to be made in AIGFP, changes with regard to compensation, changes with regard to matrix reporting. And in that very short meeting that Mr. Cassano and I had, we determined that at that time he should retire and a new leader should be recruited to push through those changes in the organization.

COMMISSIONER HOLTZ-EAKIN: So it was his capacity to manage organizational change, not the FP product line?

WITNESS SULLIVAN: Could you repeat that, sir?

COMMISSIONER HOLTZ-EAKIN: So the decision was made on his capacity to management the organizational change, not actually his capacity to manage the FP product line?

WITNESS SULLIVAN: The decision was made that it was an appropriate time for Mr. Cassano to retire on the basis that we needed to push through changes, various changes, through AIGFP.

COMMISSIONER HOLTZ-EAKIN: Mr. Cassano--

VICE CHAIRMAN THOMAS: Would the gentleman like an additional two minutes?

COMMISSIONER HOLTZ-EAKIN: Please.

I just want to make sure I understand. Mr. Hennessey I think went through this pretty clearly, and I think I understand your position, which is that, given the credit analysis, the CDSs never in fact would have had any cash outflow; there was no real reason to expect that, and to this day you maintain that's true; and that, moreover, anyone who was doing fundamental analysis, or in liquid markets these things would be trading at 100 percent on the dollar to this day. The underlying securities were that sound?

WITNESS CASSANO: It's probably my background, but the conflation of the hundred cents on the dollar--

COMMISSIONER HOLTZ-EAKIN: There's a CDS out here, and there's an underlying security. This one never would have cost you a dime--

WITNESS CASSANO: Because these would have continued to meet the cash flow up to the level where we were attaching--

COMMISSIONER HOLTZ-EAKIN: Agreed. And, moreover, because these were correctly assessed by you, they would not diminish in value unless they trigger the demands for collateral that you actually achieved. That, you don't believe, is a true market-based phenomenon, that was your counterparties trying to pick your pocket.

WITNESS CASSANO: The estimated diminution in value was created--the, the very, very large estimated diminution of value was created by other people. There was no trading going on, so there was no price discovery in these instruments.

That meant that it was hard to determine what the--there was a market disruption. You couldn't determine it. So I think you needed to rely on the actuarial analysis to tell you whether or not these would be money-good assets.

COMMISSIONER HOLTZ-EAKIN: And your actuarial analysis said these were money-good, 100 cents on the dollar? Obviously there's disagreement about that. There are other marks out there that put these things at 50 cents on the dollar, or even less, if I'm right.

How did you manage that risk as an organization and as a unit that you might in fact face different estimates and have to post collateral? You said you had $50 billion in collateral inside FP alone. Why was that insufficient? And how did you end up, ex poste, having done such a poor job of managing this valuation risk and thus the collateral calls?

WITNESS CASSANO: I can only talk about when I was there.

COMMISSIONER HOLTZ-EAKIN: Talk about when you were there.

WITNESS CASSANO: And I can talk about what I think needed to be done in--

VICE CHAIRMAN THOMAS: Yield the gentleman an additional minute.

WITNESS CASSANO: --what needed to be done in the analysis when people were asking for collateral calls.

COMMISSIONER HOLTZ-EAKIN: Since I only have a minute, I'll cut it. I've heard what you say. You used the full contractual rights --

WITNESS CASSANO: Yes, sir.

COMMISSIONER HOLTZ-EAKIN: --I understand that. And that's good bargaining, agreed. But AIG somewhere in this game must have realized they might not always get everything they wanted, even the full execution of their contract rights. Where were you provisioning for losses?

WITNESS CASSANO: We had credit reserves built into the FP business. They wouldn't have been enough for the valuation losses.

COMMISSIONER HOLTZ-EAKIN: Why not?

WITNESS CASSANO: The reserves that we had, the valuation losses, right, the fair value, what I think of as the--

COMMISSIONER HOLTZ-EAKIN: This is the market risk that evidently was so uninteresting that no one bothered to account for it anywhere.

WITNESS CASSANO: I--

COMMISSIONER HOLTZ-EAKIN: We did have a market event, so it was historically very important.

WITNESS CASSANO: But there was a market disruption that occurred that would have said that you should assert your contractual rights that would have reduced or increased the value of the portfolio in a negotiated settlement. And that is what I am saying should have been done.

I think greater adherence to the underlying rights in the contract would have served the Taxpayer better than what happened.

COMMISSIONER HOLTZ-EAKIN: One more second, one point five--

COMMISSIONER HOLTZ-EAKIN: How would the Taxpayer be better served?

VICE CHAIRMAN THOMAS: Yield the gentleman three seconds.

COMMISSIONER HOLTZ-EAKIN: How would the Taxpayer have been better served?

WITNESS CASSANO: Because I think if you brought people to the table--it's my opinion that there was a market disruption, that you would not get any market quotes for these underlying instruments.

Basically that process would have failed. The counterpart would’ve had to come back to the table to negotiate with you, because then you had to come to a negotiating settlement. But now you were in a stronger position because they would no longer be arguing that there's a fair-value estimate out there.

COMMISSIONER HOLTZ-EAKIN: I just want to make sure I understand the argument, whether it's right or wrong. So rather than doing a hundred cents on the dollar to the counterparts, a better deal would be struck, fifty cents on the dollar, so less money goes into AIG in order to satisfy the counterparts, and in that logic the counterparts are also then just fine?

Whereas, the logic for intervention at the time was AIG must be bailed out so that markets as a whole don't fail. So if we would give them only fifty cents on the dollar, aren't they just going to come around AIG and need another fifty cents from the Taxpayer anyway? Or do you really think you were not that important to markets and could have been allowed?

WITNESS CASSANO: I didn't quite follow your analysis.

COMMISSIONER HOLTZ-EAKIN: You're saying that we could have plowed half the money into AIG that we did, because we didn't have to send all this money out to the counterparts.

WITNESS CASSANO: Right.

COMMISSIONER HOLTZ-EAKIN: And everyone would have been fine after that?

WITNESS CASSANO: I don't believe the counterparts--in the negotiation, the counterparts would have terminated the contracts. They would have looked and said, yes, we still want this protection. Because, remember, they were getting the protection now from the United States. Basically the owner of the company was the United States Government. Therefore, with the support of the Government, and the negotiation that said there is no ability to determine future value here, the counterparts would have said, fine--I believe they would have said, fine, we can live with the provisions as we have them right now.

Does that make sense?

COMMISSIONER HOLTZ-EAKIN: Oh, I understand that part. The question was whether they would have also been financially whole and been able to continue. That's the question we will not know the answer to.

CHAIRMAN ANGELIDES: Well we may never know the answer, but we do have two more panels to probe the answer.

(Laughter.)

CHAIRMAN ANGELIDES: Ms. Born, you had a very quick question, and then we will wrap up. We've got to take a break and get on to our next panel, and we will shorten our break substantially.

COMMISSIONER BORN: I just wanted to continue on, Mr. Lewis, a little bit with you about the losses that relate to the securities lending operation of AIG Investments.

There have been some suggestions that the real problem for AIG was that securities lending program and not the credit default swap portfolio of AIG Financial Products. I wondered if you would comment on that.

WITNESS LEWIS: In the securities lending portfolio, there were some losses that were realized in the nature of the Investment Department selling securities in order to meet the liquidity needs to return the cash collateral to the securities borrowers.

Those losses were covered, because those losses were actually the responsibility of the Insurance Company, the AIG Insurance Company subsidiaries that were lending the securities. Those losses were covered by AIG, Inc.

The issue that I think you raise is the fact that in this market where there was a huge change in fair value, or market value of the residential mortgage-backed securities, investments could not rely on liquidating those securities to honor the obligation to return the cash collateral.

So AIG had to come up with liquidity elsewhere in order to meet those obligations. And that liquidity need was in part funded by the Federal Reserve Bank.

COMMISSIONER BORN: If we are looking to what the primary cause of AIG's failure and the need for the government bailout is, which cause was it? Or was it just equally both, the credit default swap portfolio, or the securities lending diminution of the RMBS?

WITNESS LEWIS: From my point of view, I think that looking back on it now, from my point of view the disparity, or the gapping out, if you will, of what we risk professionals and insurance professionals thought was the underlying value of the credit quality, or the intrinsic value of the portfolios, whether it was in securities lending or in FP, that value diverged just tremendously in this marketplace where liquidity dried up.

And if you will the failure in my view is that, clearly knowing what we know now, we did not stress the disparity between our underlying views of credit quality, which was shared by others, including rating agencies, et cetera, that we did not stress enough how much the market value and liquidity could diverge from people's view of intrinsic value.

And as we went through this decline, there were many changes by all of the experts and economists around the globe as to how bad this could get, and how much deterioration in housing there could be. And we adjusted as we went along. But the intrinsic value was not the issue. The issue was the divergence of intrinsic value or credit quality and liquidity available in the market for those instruments.

CHAIRMAN ANGELIDES: All right?

COMMISSIONER BORN: Thank you.

CHAIRMAN ANGELIDES: Thank you, and we will now adjourn this session. I will just say this, in concluding. I want to thank the panels for being here, or the witnesses for being here, but I do want to say something.

There are many questions yet to be answered, but, Mr. Sullivan, I must say this to someone who was a CEO, that I have found the kind of lack of knowledge and lack of recollection disturbing. It just seems to me I need to say it, not to be conclusionary, but we will probably debate on this panel many, many issues, but I do not think that the failure of leadership and effective management at AIG will be a matter of much debate in this Commission.

Thank you very much, gentlemen, for being here today. Thank you. We will recess until 3:25.

(Whereupon, a recess was taken.)

CHAIRMAN ANGELIDES: The meeting of the Financial

Crisis Inquiry Commission will come back into order. We are now in our third session of the day, Goldman Sachs and Derivatives.

I want to thank Mr. Cohn and Mr. Broderick for joining us today. Thank you. We will start our session, as we usually do. I am going to ask both of you gentlemen to please rise and be sworn, which is customary for all witnesses.

If you would please raise your right hand, do you solemnly swear or affirm under penalty of perjury that the testimony you are about to provide the Commission will be the truth, the whole truth, and nothing but the truth, to the best of your knowledge.

MR. COHN: I do.

MR. BRODERICK: I do.

(Witnesses duly sworn.)

CHAIRMAN ANGELIDES: Thank you very much, gentlemen.

Now we are in receipt of your written testimony, and we thank you for that. As we have indicated, we would like each of you to make a five-minute opening statement, no more than five minutes, and then we will move to questions and answers by the Commission.

As you know, we are examining today the role of derivatives in the financial crisis, and that will be the context for the questioning today.

In front of you there are monitors. And when that monitor goes to yellow, it means there is one minute to go. When it goes to red, it means your time is up. And so I would obviously appreciate it if you can keep it within the designated time.

So what we will do is, we will start with Mr. Broderick. Why don't you commence your testimony, and then we will go to Mr. Cohn. Microphone on, please.

WITNESS BRODERICK: I'll get it yet. Chairman Angelides, Vice Chairman Thomas, and Members of the Commission:

Good afternoon. My name is Craig Broderick. I have been the Chief Risk Officer of Goldman since 2007, and prior to that I was the firm's Chief Credit Officer.

I would like to start by addressing the role of risk management within Goldman Sachs. Our firm assumes risk as an integral part of its business of market making, underwriting, and otherwise providing a wide range of financial services to our clients.

The nature of our role of financial intermediary means that we take this risk only--very willingly, but only subject to basic principles which define our overall approach to prudent risk management.

First, we must understand the risk that we're taking--how we measure it; how much we're taking; in what form; with whom; for how long; and by how much that risk might change as market conditions change.

Secondly, we must determine how we can control the risk. That is, how we can mitigate it through hedging and other means; how we can ensure that it does not become too concentrated, and so forth.

Third, we have to feel comfortable that we can achieve a return for our shareholders, that it's appropriately aligned with the level of risk that we're taking.

To ensure disciplined risk management across our businesses, we've built a substantial risk organization within Goldman Sachs. In concept, it is built around four components:

The first is effective governance, of which independence is the cornerstone. The entire control side of the firm comprising roughly 50 percent of Goldman Sachs does not report to, and has complete independence from, the revenue-generating divisions.

This independence is critical. For example, our controller's group, not our business units, has the final say on the marks of all of our positions. Effective governance also comes from extensive participation by all levels of the firm, including our most senior management, and through the use of formal committees, informal postings, and the rapid escalation of risk-related matters.

The second component is information. We firmly believe you cannot manage what you cannot measure. A central tenant is our daily discipline of marking all the firm's positions to current market levels, not where we wish the prices were, or should be, or where we think they will be tomorrow; but, rather, where we can trade them today.

We do so because we believe it is one of the most effective tools for assessing and managing risk, providing the most transparent and realistic insight into our exposures.

We have invested heavily in our risk technology over the years and today have systems that, while certainly not perfect, are able to comprehensively capture our positions and track and analyze these positions in a multiple of ways that provide valuable insights into our overall portfolio.

The third component is people. Even with the best technology, ultimately effective risk management involves individuals making continual portfolio judgments. The daily monitoring of our credit market risk limit is informed by constant dialogue between our traders and our risk managers. Especially during abnormal market conditions, it's the experience of our business and risk management professionals and their appreciation for the nuances and limitations of each risk measure that help guide the firm in assessing its risk exposures, and maintaining these exposures within prudent levels.

The fourth and final component is the active management of our positions. As part of this, we believe that proactive hedging of our market and credit risk is beneficial both to our clients and also our firm, most notably by minimizing the potential need for us to take outsize actions during periods of stress.

More broadly, effective risk management, including hedging, serves to reduce systemwide risk, minimizing the likelihood that a counterparty failure of any size could adversely affect the system.

In hedging our market and credit risks we make active use of a variety of derivatives which I know is of particular interest to the committee. We do so not because they're the only means of hedging, but because they're often the most efficient.

Credit derivatives, for example, are often useful in helping us to facilitate the extension of credit to clients and may make the difference as to whether a transaction can be executed or not.

Given the focus on the role of derivatives in the financial crisis, I want to note my view that this crisis occurred primarily as a result of inadequate risk management and, at its heart, a deterioration in lending standards.

The effects of poor lending decisions were multiplied through the use of securitization and other off-balance sheet structures which reduced not only the transparency into these risks, but also the capital available to cover any losses.

Certainly derivatives facilitated further leverage in the system, but from the data I've seen they were relatively small competitors given that losses in this area were a fraction of cash-lending related figures.

Even so, derivatives exposures need to be managed carefully, and that is why we approached the use of these instruments in the same way that we manage other types of risks, by applying disciplined fair-value accounting, employing multiple types of risk metrics, and managing individual counterparty exposure so that, in the aggregate, the firm's overall level of risk is kept at prudent levels.

Notably, we approached our interactions with AIG exercising these very same principles and conservative risk management practices.

CHAIRMAN ANGELIDES: How are you doing in terms of time to wrap up, Mr. Broderick?

WITNESS BRODERICK: One-half a page.

CHAIRMAN ANGELIDES: Great. Okay.

WITNESS BRODERICK: To be sure, we have all learned valuable lessons from the market events in recent times, and it is clear that no approach to risk management was without its limitations.

However, we believe the four basic principles that I noted were largely effective in the face of unprecedented market turmoil.

Thank you. I look forward to answering your questions.

CHAIRMAN ANGELIDES: Thank you very much, Mr. Broderick. And now we will move to Mr. Cohn.

WITNESS COHN: Chairman Angelides, Vice Chairman Thomas, and Members of the Commission:

Thank you for the opportunity to contribute to the Commission's work to understand the causes of the financial crisis.

I would like to begin my testimony with an apology. You have stated that we have not been sufficiently responsive to the FCIC's request for information. We apologize for any failure on our part. We have redoubled our efforts to provide the documents and information you want, road maps to those documents, and extensive engagement with your staff.

We recognize the significance of your mission, to examine the underlying causes of the financial crisis, and we will work hard to help you fulfill it.

In examining the crisis, one area that has attracted considerable attention has been derivatives. Although derivatives can be complex, in essence they are no different from any other financial instrument or product.

Derivatives are used to lock in prices and to hedge, or protect against events like inflation or credit risk associated with a company. The name "derivative" implies these types of instruments derive their value from prices of underlying assets like stocks, bonds, commodities, and interest rates.

For financial intermediaries like Goldman Sachs, activity and derivatives is interrelated with our activities in the underlying instruments. Whether calculating the value of our position, marking our books, or managing our risk, we look at our operations in aggregate, which means we include cash and derivatives.

This is important because it goes to the heart of how we view risk. Concentration of risk within financial institutions can be very dangerous. But they can also be brought about through the most basic of products, like bank loans or mortgages, as was the case with many institutions that failed in 2008.

For Goldman Sachs, the cornerstone of risk management is fair value or mark-to-market accounting. This commitment to fair value accounting in all types of markets is important with respect to two main issues--the first being AIG.

We bought credit protection from AIG against the value of financial instruments on which we, acting as an intermediary, had provided protection to other clients.

As the housing market deteriorated, Goldman Sachs began to mark down the value of some of these positions. We believe our marks reflected the realistic value that the market was placing on these securities and the price at which we and others were willing to trade.

The markdowns resulted in collateral calls to AIG consistent with our mutual agreement. Because AIG disputed some of these collateral calls, we spent a considerable sum to insure against the risk that AIG would not pay us.

The second area where marking to market proved vital was in the residential mortgage related market. Although this business accounted for less than one percent of our net revenue in 2007, a lot of attention has focused on our decision to reduce risk beginning in 2006.

There is a view that we anticipated the crisis to come. We did not. In fact, there were many different views within our firm, let alone in the wider market as to the future direction of housing prices. But having observed a series of losses in our mortgage business through the daily marking to market of our position, it seemed prudent to reduce our net exposure to the subprime residential housing market. When a pattern of losses occurs in the business, we attempt to reduce our risk.

Given the focus and seriousness of the charge that bets were made against clients, certain clients, we have reviewed every RMBS and CDO that we underwrote from December 2006 till today.

During the period, we underwrote approximately $14.5 billion of CDOs. At the end of June 2007, we held approximately $2.4 billion of bonds issued by these CDOs. Against this, we bought protection representing about one percent of the total amount underwritten.

In the same period, the firm underwrote nearly $47 billion of RMBS. At the end of June 2007, we held about $2.4 billion of bonds issued by the RMBS Securitization Trust.

Again, the total amount of credit protection we bought was one percent of the amount underwritten.

During the two years of the financial crisis, Goldman Sachs lost $1.2 billion in its residential mortgage related business. We did not bet against our clients, and these numbers underscore that fact.

It is always useful with hindsight to examine actions taken. Of course we regret that we didn't do many things better, like having less exposure to leveraged loans which caused us approximately $5 billion in losses; having less exposure to mortgages; and of course we wish we had seen more proactively the effects of the housing bubble.

We believe that the most important conclusion from a review of the crisis are that the system, and individual institutions, needed more capital, more liquidity, and more transparency, and better risk management.

Mr. Chairman, thank you once again for the opportunity to appear before you today. I look forward to answering the Commission's questions.

CHAIRMAN ANGELIDES: Thank you very much, Mr. Cohn.

We will now begin our question period. As is customary, I will begin the questioning, followed by the Vice Chairman, and then the Commissioners who led this part of our inquiry.

But before I start, I do want to pick up on some information requests and just put these on the public record.

First of all I will acknowledge, as our staff would, that since the issuance of the subpoenas we have been provided--before, but particularly after the issuance of the subpoenas--significant information.

There are a couple of additional items I would like, though, to note for the record here and ask if we can please get this information as soon as possible.

We asked for some information, as complete as possible, on the basis for the marks you made, particularly with respect to mortgage-backed securities or synthetic CDOs, all the mortgage-related securities for which there was not essentially an active trading market.

So we would like to get the basis for the marks you made during 2007-2008, particularly with respect to those marks provided to AIG.

And also, I know that you've provided us some information about the marks that were given with respect to the Bear Stearns Asset Management Funds, and you have provided that. We do not believe it is complete at this point, but we would like to follow up with you on that matter.

So can we have your commitment that we can get that information so that we can understand the basis of your marks, how you marked to market, very specifically?

WITNESS COHN: Absolutely.

CHAIRMAN ANGELIDES: Okay. Thank you.

Secondly, we have requested information because you've stated many times that you were fully hedged against events at AIG. Clearly, Goldman did purchase credit default swap protection with respect to AIG. And you have provided us in a sense in aggregate the counterparties from whom you purchased that protection. But you have not yet provided us the specific amounts from those counterparties. You know, for example there may be a purchase of $100 million of CDS that lists the counterparties, but it doesn't break it into the specific amounts. And we are particularly interested, since the company stated it was fully hedged, in the level of CDS protection that existed pre-essentially Federal Reserve loan to AIG, so that we can understand the nature of your hedging, whether it was full hedging or phantom hedging, or who the counterparties were and what their position was.

So can we have your commitment to get that information?

WITNESS COHN: Absolutely.

CHAIRMAN ANGELIDES: Thank you.

WITNESS COHN: And it would have all been pre. So that's fine.

CHAIRMAN ANGELIDES: Good. Next, and this may take a few minutes to go through. We have asked for information so we understand the extent--and Ms. Born may follow up on this also but this is on my time right now to alleviate some of your burden--is that for revenues and profits from derivatives trading as a business.

Now I know Mr. Viniar in his statement has said, well, we don't really have a derivatives business, so to speak. And to date I think Goldman Sachs has told us that providing revenues and profits from derivatives' trading and dealing business isn't possible. But we would like that information.

And let me just say, it seems to me that from a management perspective you've got to be able to cut your revenues and your operations in many different ways-- horizontally, vertically, diagonally. So maybe there's been a miscommunication.

Is it possible to get from you the management reports that would indicate the size and nature of the revenues and profits from derivatives' dealing?

WITNESS COHN: We would not have management reports that would break it down that way. As I said in my opening statement, we look at our risk aggregate. And whether you're looking at a cash security or a derivative of that cash security, it's the same underlying risk. And therefore we manage it in one bucket.

So when--

CHAIRMAN ANGELIDES: So you have no breakdowns for any of your managers in which you can segregate out your derivatives activities and the cash flows that come from that activity from your other activities? So in other words, you might have an underlying security, and you might have derivatives, and you don't separate that in any way, shape, or form in any of your operational reports for managers?

WITNESS COHN: We don't. We look at our net delta, is what I would call it. So I'll use a simple situation.

If you're long 100 shares of stock, you're long 100 shares. If you're long one at-the-money option, it's got a 50 delta. So it's 50 shares. So if you had those two positions, you'd be long 150 shares. And we look at that as a 150-share risk.

And now we run some other risk parameters, saying if the market moved 5 percent up, or 5 percent down, what would the risk parameter look like, but it's virtually impossible for us to separate those two because the same exact underlier will determine the profit and loss and actually you'll use that to show the risk.

CHAIRMAN ANGELIDES: What about revenues apart from profit and loss? Fee income generated by derivatives dealing?

WITNESS COHN: We could break out underwriting fees, because they are actually distinct fees.

CHAIRMAN ANGELIDES: All right, because I'm doing this for the benefit of the Commission, I don't want to eat up all my time. Not I--I believe we want to pursue this matter, and so I think probably the best way is we need to have a more fulsome discussion to see how you do break it down. It just seems to me you're pretty smart guys. You've got to have a lot of ability in your management reports to see how you're doing in different divisions, who's performing, who's not; what spreads are. So we would like to pursue this discussion.

WITNESS COHN: We are happy to work with your staff and give them as much transparency as we have. But I'll be honest with you, we can dig and dig, we won't find that report.

CHAIRMAN ANGELIDES: All right. So the last thing I said, there are other items, and our inquiry is ongoing, and I will leave it at that.

So let me jump right into what I would like to address today. I don't know if you had a chance to hear the previous session with the AIG folks?

WITNESS COHN: We heard some of it.

CHAIRMAN ANGELIDES: Okay. Well I do want to-- you know, I do want to pursue what people did in the marketplace and why they did it. And to particularly pursue this matter of the relationship between AIG and Goldman Sachs, and the valuation of the CDS book, and the collateral calls, and the posting of collateral with respect to that book.

And at a certain level I am looking not for a "who done it," but trying to understand who built this bomb, who might have built bomb shelters, and who and when the fuse was lit for all this.

So we have established already--and I don't think we need to go over it--but just for the record, that you were clearly very active in the creation of mortgage-backed securities, synthetic CDOs, by our account I think from July '04 to May '07 you did about 48 synthetic CDOs; about 3500 tranches that were referenced. I think Mr. Georgiou is going to talk about this in more detail.

In 2007, by your own account you were very active in CDO issuance and RMBS issuance. So clearly this was a market with which you were very familiar. And my understanding is that, Mr. Cohn, in your interview, and Mr. Broderick, in your interview, you did stipulate that the creation of synthetic products did allow for more leverage, possibly inflating the bubble some.

What I wanted to really focus on, though, is I wanted to focus on the other side of this equation, the protection you were buying from AIG, and to understand how this worked.

Particularly, given that it was an over-the-counter market, it was opaque, there appeared to be disruption in the market, very hard to get price discovery;

you may have known that in our earlier session I entered into the record a chronology of essentially your decisions in December 2006 to, quote/unquote "get closer to home," to reduce your exposure to subprime, to begin to reposition yourself, a chronology that starts there and then really marches through the collateral calls you made to AIG, the responses to those, the postings that were made. Also that chronology includes the protection you bought against AIG.

If you look at the chronology--and I think you are aware of this--Goldman was first going in the door asking for collateral. Goldman was by far the most aggressive in terms of the time frame and the amount asked for.

As of 12/31/07 you were about 27 percent of the CDS book, and you had had posted on your behalf 89.4 percent of the total collateral posted. By June 30th of '08 you had 48 percent of the total collateral calls were yours versus 27 percent of the total book.

I mean, you were way ahead of everyone else in terms of amount being demanded and the time frame for that.

Your marks were consistently lower than other participants in the marketplace. And so as I said earlier, I am trying to understand. I think it became quite a matter of discussion here about how this worked.

Does the setting of marks move the market? Did you have reasons, because at least according to some accounts you were net short in 2007 to move the market down. And as I said earlier, you know, I wondered whether this was just pure straight-up business negotiation, or whether there was in fact like a Discovery Channel the Cheetah hunting down the member of the herd. Or whether, in some respects, knowing or unknowing, motivation aside, that the Goldman calls against AIG were the first dominos in a chain that began to drag down at least market valuations versus economic losses of these portfolios.

So let me start with this: You go in the door--first of all, I know you made very aggressive marks. You made your decision in December of '06 to reposition yourself to get closer to home, to reduce subprime risk, to start marking the inventory.

In March of 2007, in one of the offerings out in the marketplace--and this was a standard offering--you said there's no established trading market for the securities. That was in a synthetic CDO, one of the Timberwolf CDOs.

May 11th, Mr. Broderick, this is where you send your memo saying we're in the process of considering making significant downward adjustments to the marks on their mortgage portfolio and that, quote, "this will have potentially big P&L impact on us, but also our clients due to the marks and associated margin calls."

In May you send to the Bear Stearns Asset Management Group, according to reports--and that's what I want to verify--marks that are at 50 to 60, where other marks are in the 90s.

When you make your collateral call to AIG, the shear amount of it stuns them. It's $1.8 billion. The marks are dramatically, as they say, Goldman's prices were, quote/unquote, "ridiculous," that's Mr. Forster.

On August 1st there's an e-mail from Mr. Athan to Mr. Forster at AIGFP saying that Goldman was, quote, "not budging and are acting irrational." And of course that collateral call was pulled down significantly, because it was based on bids not the midpoints, apparently.

But--and I go through more of this, and I will, but all through the next several months you're asking for more. You're marking it significantly below the rest of the market. Why is this?

What do you know? What do you know about the market that everyone else doesn't know that puts you in a position of marking these securities at significantly lower levels and making these kinds of calls?

WITNESS COHN: Chairman Angelides, let me start. First of all, on your point that we had called for more collateral from AIG and had collected more collateral than anyone else, I think you should go back and reference the different trading documents.

I'm not sure all the counterparties had the ability to call for collateral. AIG was a highly rated counterparty and was not easily--did not like to sign two-way margin agreements. So you should check with that first to see if anyone else had the ability to collect margin.

CHAIRMAN ANGELIDES: And I will say, we will do that. But the charts that are in the documents that we put out do reflect others marking margin calls.

WITNESS COHN: I understand.

CHAIRMAN ANGELIDES: Like SocGen who accelerate theirs, about a year after you are.

WITNESS COHN: Okay. There were different provisions in different trading agreements. Let's not spend a lot of time on that.

CHAIRMAN ANGELIDES: But we'll do that.

WITNESS COHN: Okay. Let's go to the second part of your questions, which was why were our marks where our marks were.

And if you look at our trading agreement with AIG, it very clearly states our marks are to be determined by fair value, not fundamental value. Our determination of fair value is where things are transacting, or one would interpret a transaction to take place, based on other relevant transactions going on in the market.

So until there is a transaction, or until there is some transaction that equates to a security you have, it is difficult to mark the book. But what was happening during this period of time, you went through a period of time where you had increased volatility.

In increased volatility what normally happens in markets is bid offers widen, because people are unsure of the real underlying value. Bid offers widen, and then eventually some trades start taking place. As more and more trades start taking place, the market tends to converge around an area of value.

So what we did is, as trades took place we used those actual real live trades as reference points to create fair value in marking our book.

CHAIRMAN ANGELIDES: So you're telling me in the spring and summer of '07, leading up to those collateral calls, you have actual trades at those values substantiating not just an episodic but substantiating the market?

WITNESS COHN: Yes.

CHAIRMAN ANGELIDES: Okay, we'd like to have that provided to us. Because what we're seeing from other documents is we're seeing the fact that it was a disrupted market, and that there weren't real trading values. And in fact, if you heard the testimony earlier today, when Goldman first makes its collateral call, as I said, it was revised from 1.8 down to 1.2 on the basis that it was--yes, sir?

WITNESS COHN: It was revised from 1.8 to 1.2, and then they paid us the money--

CHAIRMAN ANGELIDES: They paid 450--

WITNESS COHN: Exactly.

CHAIRMAN ANGELIDES: Exactly, exactly. But it was revised downward, and you did settle temporarily but with a stand-still agreement for 450, but according to Mr. Cassano, Mike Sherwood at Goldman admitted that when he and Cassano spoke in September, Cassano recalled that Mr. Sherwood said that Goldman, quote, "didn't cover ourselves in glory."

Then he goes on to say that, quote, "The market is starting to come our way," which implies that you had a position in the market, indications at least from Mr. Blankfein and others that you were net short. And at least Mr. Cassano took it that he interpreted Mr. Sherwood's comments as an implicit admission that Goldman's initial collateral calls were too low.

And I guess my question is: In this kind of marketplace, if someone is net short, if you were, someone's net long, at some point you criticized AIG's mark saying, well, it's in their interest to keep them high because they're in their position. Were you at all motivated by the fact that you were net short to begin pushing prices down?

WITNESS COHN: No. We had transactions on the other side. We were paying out the equal and opposite margin to our clients on the other side.

So as I said in my opening statement, in AIG we sat in the middle of buyers and sellers. We had one set of books, one set of marks. We collected on those marks. We paid on those marks.

So to the extent we were moving marks up or down, it was money in the door going right back out the door to the other side.

CHAIRMAN ANGELIDES: Just--I know I've been talking fast, but collateral calls too high marks, too low. That's what I meant.

WITNESS COHN: Yes, I knew what you were saying.

CHAIRMAN ANGELIDES: Yes, I knew you knew what I meant. But let me explore this a little more. There are actually three additional documents I'd like to enter into the record, which were provided by your counsel and cleared by your counsel today, I might add, in our discussions with our counsel.

There's a memo that ultimately floats up to Mr. Lehman. It's from a Ram Sundaram (phonetic) in your shop. And it's on actually the very day you're making the collateral call to AIG. And he says: The extent of collateral calls being generated overnight is embarrassing for the firm, $1.9 billion from AIGFP alone. We need to focus on developing a process for ensuring accuracy for all marks, especially those which are being sent to clients and those that are the basis for margining open transactions.

And it looks as though there's a lot of dispute. SocGen, apparently, according to AIG, was contacted by Goldman Sachs, as AIG would have it, to encourage them to make a collateral call, but they end up not making it and disputing your marks.

I have two other documents here I'd like to enter into the record. The first one, by the way for the record, starts with an e-mail from Mr. Lester Brafman to David Lehman dated July 27th. The second document is from David Lehman to Daniel Sparks, and it's about some feedback. It's an e-mail string from J. Lee to David Lehman about AIOI Insurance. They are objecting to your marks. This is on July 31st, saying: Our marks--meaning Goldman's marks--are more than twice as bad as the second-worst dealers, and all their positions are super senior. It sounds like getting a margin call out of them will be an issue.

It goes on to say: Earlier, also about the same organization, he said, our margin call based on our MTM was--mark-to-market--was totally unaccepted; warned he will strongly protest against this.

And there's another e-mail from an Alana Ash to, it comes to you, Mr. Broderick, in which it indicates that both CIBC and AIG are contesting marks.

I guess I really do want to get to the root. In this non-traded market, I'm trying to get the extent to which you are making a market in marks by what you're doing. By your pushing these marks down, are you pushing prices down?

WITNESS COHN: We are not pushing prices down through marks. The market itself is setting pricing levels.

And most importantly, we were prepared, openly prepared, to trade at those marks.

CHAIRMAN ANGELIDES: But did you?

WITNESS COHN: We have traded at those marks.

CHAIRMAN ANGELIDES: Okay, this is why we wanted the information, and have asked for the information. And I'm not saying you withheld it, but to see the actual basis, on actual marks for that time period I think is crucial to this discussion.

All right. I am going to stop at this moment. I will return to this subject, but I want to leave time for the other Commissioners.

Mr. Vice Chairman?

VICE CHAIRMAN THOMAS: Thank you, Mr. Chairman. I will apologize to my fellow Commissioners because I did not ask the last panel if they would answer questions in writing. I am sure they will.

So I won't be negligent with you fellows. Obviously we're going to have additional questions. I would very much like for you to respond in the positive to my question of: If we get questions to you in writing, would you get them back to us?

WITNESS COHN: Yes.

WITNESS BRODERICK: (Nods in the affirmative.

VICE CHAIRMAN THOMAS: She can't record a nod.

WITNESS BRODERICK: Yes.

VICE CHAIRMAN THOMAS: Thank you. My assumption is there won't be a subpoena necessary to follow up on that.

WITNESS COHN: No.

VICE CHAIRMAN THOMAS: Your apology I guess was, you know, nice. I actually just thought that we were engaged in business the way your reputation indicates you engage in business, and you were going to do what you were going to do until we could trump you in a way that you couldn't keep doing what you were doing.

So it was a business relationship. We weren't getting answers, so we issued a subpoena. You're now being responsive. And if that's the ground rules, we operate by the ground rules.

This morning--I don't think you were here earlier enough to hear the first panel of economists--we were just talking about fundamental derivatives, what were they, how did they come about, how do we wind up with what we were doing in the housing market.

And I want to kind of shift it to a much broader questions, only because you guys are big in almost every field you go into, and you're good at what you do, and I would like to ask you some questions:

If you think there's any validity to the statement of one of our panel members, Dr. Kohlhagen. I asked him at the end: What did you think was the fundamental cause, or one of the principal causes of the financial crisis?

And he focused very tellingly and directly on the government's desire to get people into their own homes. You can look at the Community Reinvestment Act, with both Republican and Democratic Administrations, in attempting to get people into their own homes through Fannie Mae and Freddie Mac. And his statement was, he said that the government went to Wall Street and asked them to lend to more people.

Wall Street responded: So you want us to lend to people with lower credit quality? Watch us, in terms of having an opportunity to move vigorously in a particular area.

So I assume you would answer yes to the question:

Did Goldman help facilitate the new mortgage market? I mean, once we started moving away significantly from originating-to-hold to originating-to-distribute, you've got to wind up with some structures.

I'm trying to figure out where you guys were, looking at opportunities. Your chairman came before us on our original panel and said your job was to make markets. And so I assumed you looked at this opportunity, and you looked at what was going on your general field, and you came up with some ideas to make markets like CDSs and CDOs.

What was your mindset in terms--were those necessary devices? Were they the best ones available? I don't know anything about you guys' business or how things operate. So were there other ways to do it? Or were those, based on your valuation, the best way to get into the business of what we wound up getting in over our heads on?

WITNESS COHN: Mr. Vice Chairman, let me explain. Our business is pretty fundamental. We are a client facilitator.

VICE CHAIRMAN THOMAS: Um-hmm.

WITNESS COHN: We have clients that we interact with all over the world. They come to us on a real-time basis all over the world trying to buy or sell certain risk, certain assets, certain securities.

We respond to what they want--

VICE CHAIRMAN THOMAS: Could I pause on that basis? Because one of the things about advertising, plus or minus, is that they help create markets by getting people to want something they didn't know they wanted.

Are you engaged in creating markets on that basis at all, where you come up with an idea and see if people like it? Or are you simply a sponge, soaking up what people come to you with?

WITNESS COHN: We're not that smart to anticipate what people are going to want.

VICE CHAIRMAN THOMAS: I'm going to put that statement in the category with the apology, but that's okay.

WITNESS COHN: Okay. What we are smart enough to do is listen to our clients and react to what they tell us they want.

So when a client calls me and says, hey, I have a long mortgage exposure. I need to find a way to go short. Please work with me. We work with the client. And that's how our business evolves over time. It is really facilitating our client franchise.

VICE CHAIRMAN THOMAS: Okay, and so you start with something that's kind of more fundamental, the CDO, CDSs. Did they come to you with the idea of synthetic CDOs? Or did you come up with that as a way to better facilitate what they had originally asked for? How did you get into synthetic CDOs?

WITNESS COHN: I don't know precisely the moment that a synthetic was created. I'm not sure we did the very first. The half life of creativity in the financial service industry is about 30 seconds. The minute you publish a new transaction or do something, because there are underwritings and you have to publish prospectus, the entire world gets to see what you did.

VICE CHAIRMAN THOMAS: I wasn't interested in giving someone an award for being first. You were into it.

WITNESS COHN: We respond--

VICE CHAIRMAN THOMAS: You got into it for reasons that allowed you to do more of, better than?

WITNESS COHN: We did it for reasons that our client franchise demanded us to be there.

VICE CHAIRMAN THOMAS: Boy, for you guys not being very clever, you make a lot of money.

In looking at two groups who were here before us today, the AIG group, and you guys, and activities that other folks are going to talk about in that more narrow relationship, you have a lot of clients. And obviously one of your concerns would be to make sure that you spread risk over as broad a basis as possible because you don't want to concentrate it?

Would you describe the relationship between

Goldman and AIG as probably concentrating more risk than you would otherwise have liked, but they were there and, you know, you play tennis with who shows up at the court sometimes, not who you wanted to play tennis with?

WITNESS COHN: It's impossible for me to say what AIG had on the other side. AIG was an important client, and an important relationship to us. They constantly wanted to be more and more involved in this market.

VICE CHAIRMAN THOMAS: And you were facilitating your customers.

WITNESS COHN: We were facilitating our customers.

VICE CHAIRMAN THOMAS: So you did more of it.

WITNESS BRODERICK: Commissioner, may I comment on that?

VICE CHAIRMAN THOMAS: Sure.

WITNESS BRODERICK: If you think about AIG at the time that we were dealing with them, which was primarily in this space in the '04 and '05 period, they looked like the perfect customer for this.

They were not by any means our only customer, or even our majority customer, but they were--

VICE CHAIRMAN THOMAS: Who was bigger than them?

WITNESS BRODERICK: They were the largest in this space in particular.

VICE CHAIRMAN THOMAS: Yes, so that they were.

WITNESS BRODERICK: In this particular space, that's right.

VICE CHAIRMAN THOMAS: Right.

WITNESS BRODERICK: But from looking at them as a suitable, appropriate counterparty, they really ticked all the boxes. They were among the highest rated corporates around. They had what appeared to be unquestioned expertise. They had tremendous financial strength. They had huge, appropriate interest in this space, backed by, you know, a long history of trading in it.

So it was, from an assessment of appropriate counterparties' perspective, they looked like the right type of entity to do a substantial amount of business with.

VICE CHAIRMAN THOMAS: I don't think I ever got an answer out of you in terms of Dr. Kohlhagen's initial suggestion that this was basically government, and as I said bipartisan, Republican and Democrat Administrations, trying to move people into homes. And people were accommodating that with new inventions, and willingness to move down quality measures to get people into them.

And of course we saw the quality move from some-down to nothing-down, to some indication of income that you could cover it, to no docs in which there's no income necessary. And you kept generating these documents based on mortgages that continued to look worse than we've ever seen before, but for some reason the rating companies were giving them high ratings.

And I'm getting back to the whole question of, your goal, stated by your chairman, and you again repeating it here, that your job was to make markets, and I assume to make efficient markets, and to be a facilitator to making things happen. So would it be fair for me to look at this relationship that we wound up getting into as, to a certain extent, a market promoted by government, and that you were more than willing to cooperate in that, supporting a government-supported structure helped build a pyramid that eventually collapsed?

WITNESS COHN: There is some truth to that, but it's not the whole truth.

VICE CHAIRMAN THOMAS: Oh, just some truth is the best answer I've had in a long time. So let's focus on the "some" not the "whole." S-O-M-E.

WITNESS COHN: As there was a social agenda to increase home ownership in the United States, many of the bodies that were out there to promote home ownership, including the agencies, were by statute lowering their rules and regulations to accept different and new types of loans.

So there was a major decision for the agencies to get into the subprime market; that they would then accept subprime loans.

VICE CHAIRMAN THOMAS: But your ability to assist them in creating products which absorbed them, securitized them, and getting people to participate, was there ever a discussion at Goldman that this was also a kind of a positive social policy that we ought to work with to make sure those get soaked up and plugged into the system? And you could make money off of doing that?

WITNESS COHN: I wouldn't go as far as to say there was a social policy discussion. It was just the natural ebb and flow of the market. The mortgage originators that were looking to sell mortgage product that they had originated with individual homeowners started looking differently than what we were used to.

We went to the traditional buyers of mortgage asset-backed and mortgage security paper and said, are you interested in buying this? What is the price? What is the yield? What is the discount you need to commit capital to that space? And we intermediated between the originator of the loan and the ultimate buyer of the loan.

VICE CHAIRMAN THOMAS: So sometimes don't you try to sell? You're just not there as a facilitator and you're playing to manipulate--so if you had these products, and you wanted to sell them, did you ever refer to them in terms of the rating companies, in terms of AAA and other associated descriptions?

WITNESS COHN: There were always rating agency descriptors involved. But more important than rating agency descriptors was the actual price. The prevailing price would give you a much clearer picture of what the market would think about the real underlying value and the value of the collateral.

VICE CHAIRMAN THOMAS: Okay, and now I'm going to reserve my time, but I just have to go back at you a little bit. And I understand the shtick you go through in terms of who you are and what you do, but if you have brokers making--traders making calls, and you have flip books showing through your Abacus transactions what people can have, I mean that's basically selling, and advertising, and attempting to get people to accept something that you have created, and offered, and think you can make money on, isn't it?

WITNESS COHN: We think we can make money, but the evolution of the flip book was a client response, a reverse-inquiry, as we call it. When a client inquires to us: Can you create XYZ for me? And they may not want the entire structure, but they want a chunk of it that's large enough that we make a business decision, if they take that piece, are we prepared to take the rest and then redistribute it?

VICE CHAIRMAN THOMAS: I understand, and I actually can do that, too, having been successfully elected 16 times. You ask me something, I can give you an answer exactly the way I want it. And I'll end this session by I better understand our need to have issued a subpoena to get information out of you.

Mr. Chairman.

CHAIRMAN ANGELIDES: Very quickly, I just, since you raised it, I want to kind of just finish up rather than doing it at the end. I do want to just pick up on something you were on a trail of.

The only thing I want to say for the record, and I know the other Commissioners will surely deal with this, is the idea that a synthetic CDO helped to meet a housing goal is still unexplained to me.

Other Commissioners I think will probe this issue, but I don't see the way in which it created more capital specifically to create more housing opportunity.

But the way I've been looking at it, a bomb went off. And it's pretty clear to me, and you weren't the sole participants here, is that Goldman participated in building the bomb. You were very active issuers of the very securities that ultimately blew up. I don't think that's disputed, and I don't think you were the sole folks in that arena, but clearly you did that.

I don't think it's disputed that you built a bomb shelter, starting in December of '06; that you decided, looking at the market, that it was time to protect yourself.

What I'm trying to get to is how did this cascade of events really begin. Was it the underlying poor quality of the rotten nature of the subprime loans in the market? Or was it in fact activities of market participants that in the same way that they pushed prices up, and the bubble pushed them down as the bust came. So that's why I'm interested in this interplay between you and AIG.

And I just want to ask one more time. If you look at an August 16th e-mail from Andrew Forster at AIGFP to Alan Frost, he said: I've heard several rumors now that GS is aggressively marking down asset types that they don't own so as to cause maximum pain to their competitors. It may be rubbish, but it's the sort of thing GS would do.

On September 11th, there's an e-mail from Tom Athan at AIGFP where it says SocGen NY said they, quote, "received marks from GS on positions that result in big collateral calls, but SG disputed them with GS."

If you go on, there's an e-mail from Joe Cassano, November 1st, that said that the collateral call from SocGen was, quote, "spurred by GS calling them," and AIGFP had not heard from SocGen since disputing the call, but obviously the allegation is you told SocGen get in there and make a call.

So I guess, what do you say to people who ask you the question: How would you tell me you didn't drive prices down? Let me reverse it. What's the objective evidence I can look at to understand this market to see whether there's fair pricing going on, or this is really just a struggle between people, big financial institutions who have a very distinct market position?

WITNESS COHN: To me, it's simple. Actual trades and the fact that we were willing, and we were aggressively willing, to liquidate our portfolio back to those clients at those marks.

CHAIRMAN ANGELIDES: Well then the proof will be in the pudding. And I think the trail of marks, the trail of transactions, whether it was really a liquid market or whether those were episodic trades I think will be very revealing.

All right, let's go to Ms. Born.

COMMISSIONER BORN: Thank you very much, and thank you both for appearing.

I would like to focus on Goldman Sachs' business in over-the-counter derivatives. Am I correct that Goldman Sachs conducts an enormous over-the-counter derivatives business?

WITNESS COHN: We have a very active business. I don't know if it's "enormous." I mean, there's not a lot of details on who does what in the over-the-counter market. We are a very active player.

COMMISSIONER BORN: Well I think your Chief Financial Officer, David Viniar, told Commission staff that Goldman Sachs is one of the top five over-the-counter derivatives dealers in the world. Do you think that's incorrect?

WITNESS COHN: I think that's accurate.

COMMISSIONER BORN: At the end of 2009, isn't it correct that Goldman held 1.2 trillion over-the-counter derivatives in the notional amount of $45.6 trillion, more than four times the gross national--gross domestic product of the United States?

WITNESS COHN: Do you know that, Craig?

WITNESS BRODERICK: I don't know the precise number. It's certainly very large.

COMMISSIONER BORN: I think Goldman Sachs told our staff that the two of you were the most knowledgeable about your derivatives business.

WITNESS COHN: We are quite knowledgeable, but I don't know the exact notionals at any moment in time.

WITNESS BRODERICK: And in fact notionals from a pure risk perspective, or any other management perspective, is really not especially meaningful, in fact not meaningful at all.

WITNESS COHN: Which goes back to the panel this morning.

COMMISSIONER BORN: Well this is the data that the Office of the Comptroller of the Currency has published for year-end in terms of your position in over-the-counter derivatives. Do you think they are inaccurate? I assume they get that data from you.

WITNESS BRODERICK: The data may very well be accurate. The point I think we are both making is, that wouldn't be the metric that we would choose to reflect relative size, or relative risk inherent in a business. The example that was provided earlier today by a couple of your Commissioners where they did, on a pretend basis, obviously, $2 trillion in completely offsetting risk demonstrated that pretty clearly.

COMMISSIONER BORN: Well perhaps when you give us your revenues and pre-tax earnings on your over-the-counter derivatives dealing, we'll have another and perhaps better measure of the size of your business, don't you think?

WITNESS BRODERICK: Mr. Cohn was very clear that from a firm MIS perspective, breaking out derivatives specifically from the rest of our trading business is not something that we do. It's not something that has any meaning to us from a risk perspective.

VICE CHAIRMAN THOMAS: I'm sorry? What is "MIS"?

WITNESS BRODERICK: Management Information, sorry.

COMMISSIONER BORN: Well it may not be something you do as a regular basis for your management, but I'm sure you have the financial records to do that.

WITNESS BRODERICK: I'm not even sure how you would, though, because the example that Mr. Cohn provided was a equity, of cash equity position, and a delta equivalent option position, which perhaps you could take those two trades and say, okay, of a total trading amount of trading gain of X, we can allocate two-thirds to cash and one-third to options, and maybe you could reconstruct something like that. But then take much more complicated positions, which is in fact what we have on our books, where you don't have two longs that nicely aggregate. You have a long and an off-setting hedge, of which part of the long will be cash, and part of the short will be, a hedge will be cash and part will be derivatives.

And so allocating complicated dynamically managed positions on an ongoing basis, and allocating specific revenues to them, I frankly don't know how you would do it even conceptually.

COMMISSIONER BORN: Well we will certainly go into this in more detail with Mr. Viniar tomorrow, but it seems to me it must be a little difficult to manage the risk in your derivatives portfolio if you're not able to measure the portfolio and the profits and revenues related to it. Isn't it, Mr. Broderick?

WITNESS BRODERICK: We don't--

COMMISSIONER BORN: I thought you said that to manage things you needed to measure them?

WITNESS BRODERICK: Absolutely. But what we manage, and what we measure, is the positional risk that we have across products, and across counterparties, and across all sorts of other parameters. All of those aggregate, cash, and derivatives, and other positions, on the basis that that's what's really meaningful to us.

Whether we have exposure in market risk terms in the form of derivatives or in cash products is not really what's meaningful.

Now there are exceptions to that, right? So when you're thinking about managing derivatives, there are credit risks which occur in derivatives which don't occur equivalently in cash. And so for credit risk purposes we pull out the current exposure and potential exposure, and other metrics associated with those derivatives.

But for the question which you're asking, which is how you allocate--how you think about market risk, it really is not relevant to us the precise form in which they occur.

COMMISSIONER BORN: Well the Office of the Comptroller of the Currency reports on an annual basis what the revenues on derivatives are from commercial banks. You have a great deal of derivatives trading through your commercial bank entity that's reported, as well.

Do you suppose that you're telling the Office of the Comptroller of the Currency that you can't give them the revenues from that operation?

WITNESS BRODERICK: From the--which operation?

COMMISSIONER BORN: From the derivatives operation. That's what they report. They reported that the commercial banks in 2009 had $22.6 billion in revenues.

WITNESS BRODERICK: I'm not aware that we can do that. We can certainly follow up.

COMMISSIONER BORN: Well I would be interested in seeing exactly what you report on a quarterly and annual basis to the Comptroller of the Currency in terms of your derivatives' related revenues.

What proportion of the over-the-counter derivatives' contracts that Goldman enters into with counterparties are standardized? And what portion are customized? And by "standardized," I mean sufficiently standardized so that they would be theoretically capable of clearing on a clearinghouse.

WITNESS COHN: It's something that right now we're looking at to some degree. I would not be able to answer that question.

COMMISSIONER BORN: You don't even have a ballpark estimate?

WITNESS COHN: It would be a bad guess.

COMMISSIONER BORN: Would it interest you to know that Jamie Diamond of JPMorgan testified under oath before this Commission that approximately 75 to 80 percent of JPMorgan's derivatives' contracts are standardized? And do you think that would have any comparability to Goldman's activities?

WITNESS COHN: It may. I mean, we are in very similar businesses to each other, so I would think there would be a high degree of correlation between what their book of business looked like and what ours did.

COMMISSIONER BORN: Well I would ask you to provide to the Commission--and I think we asked you this in January as well--to provide to the Commission the proportion of your derivatives' contracts that are standardized as opposed to customized.

WITNESS COHN: (Nods in the affirmative.)

COMMISSIONER BORN: Can you tell us what proportion--

VICE CHAIRMAN THOMAS: Was that a 'yes'?

WITNESS COHN: Oh, sure.

VICE CHAIRMAN THOMAS: Oh, okay. Because when you nod, it's really hard to pick up for the record what it was that you respond to. Thank you.

COMMISSIONER BORN: Can you tell us what proportion of your over-the-counter derivatives business consists of acting as a dealer with customers, and what portion is proprietary trading on behalf of Goldman Sachs itself?

WITNESS COHN: I would say the vast, vast majority of our over-the-counter business is customer-related, ninety-plus percent.

COMMISSIONER BORN: Would you also be able to provide us with more exact statistics, please? Because we asked for this in January, as well, and we haven't received it.

WITNESS COHN: We will try. Again, it will be a best-efforts to come up with the number.

COMMISSIONER BORN: We would also, and I think have requested in January, a breakdown of revenues and pre-tax earnings based on the over-the-counter derivatives dealing business and the proprietary speculative trading.

I would like to show you a chart. I don't know that it has a number, but it's the balloon chart entitled "Goldman Sachs' Top Derivatives Counterparties Notional Exposure as of June 2008." Do you have a copy of it?

WITNESS COHN: Yes.

COMMISSIONER BORN: I would like to ask that this be entered into the record of the hearing, please.

VICE CHAIRMAN THOMAS: Without objection.

COMMISSIONER BORN: This chart shows Goldman Sachs' relationships with 49 of its top derivatives' counterparties. It's the top 9 or 10 counterparties of Goldman Sachs as of June 2008 in each of 5 major types of derivatives.

It does show how complex and extensive Goldman's relationships with this small number of counterparties are. I notice that none of the credit derivatives products top 10 counterparties as of then included AIG.

I thought you said a few minutes ago, Mr. Cohn, that you think AIG "was or biggest customer in this space"? You must have meant something other than the credit derivatives swaps' space. What did you mean by that?

WITNESS COHN: I think Mr. Broderick said that.

COMMISSIONER BORN: Oh, I'm sorry.

WITNESS BRODERICK: And I think this chart here shows top credit derivatives products by notional amount, and the numbers are very large. The smallest credit derivative product that I see, although it's a little hard to read the chart, is in the hundreds of billions of dollars.

COMMISSIONER BORN: $314 billion.

WITNESS BRODERICK: Thank you. And as you may have seen from other information that we provided, the notional exposure of trades that we did with AIG was substantially less than that. I think the numbers that you probably saw were $23.5 billion or so. And that really gets to the heart of the difficulty of using notional exposures as reflective of real risk.

These entities with whom we trade here are very active market makers. We trade back and forth on a countless basis--not a countless, but a very large basis, with in most cases offseting trades, and all subject to collateral arrangements and other risk mitigants which bring the risk down very substantially. But based on notional AIG would not appear in this category at all.

COMMISSIONER BORN: And why was it that you traded with AIG without collateral up front?

WITNESS BRODERICK: Without collateral up front, we did not feel it necessary to--and, frankly, they would not have agreed to collateral up front. Remember, this is an entity that was AAA until sometime in 2005, and then AA until a whole lot later, dealing with an equivalently rated entity.

The arrangements that are customary on that basis are to trade with, on a flat basis, so both sides post margin as mark-to-markets move against that entity, and in some cases subject to trigger levels. And in the case of AIG, the arrangements that we had were substantially that.

And then in addition, we had our own separate credit protection mechanism, which we can talk about separately.

COMMISSIONER BORN: Well back to the chart. As I said, this shows 49 of your counterparties. In fact, fewer than that because many of the same large institutions are among your top 10 counterparties in each of these sectors.

But in fact you have 1.2 million contracts outstanding, at least as of the end of 2009. How many customers? How many counterparties do you have on over-the-counter derivatives' contracts?

WITNESS BRODERICK: I don't know the precise number, but it's more than 10,000. It's a substantial number.

COMMISSIONER BORN: And so there are that many interconnecting counterparty relationships through the contracts? Correct?

WITNESS BRODERICK: I don't know if I would say "interconnecting," because I think that would exaggerate the degree of overlap across those counterparts. Many of those OTC counterparts are single-product in nature, or a couple of products, and many of them are end users dealing just with us and with perhaps a handful of other banks.

So that's different I think than the interconnectivity reference in this diagram.

COMMISSIONER BORN: Well by "interconnectivity" I mean bilateral. I mean, these are contractual--

WITNESS BRODERICK: Yes.

COMMISSIONER BORN: --relationships between you and 10,000 other entities.

WITNESS BRODERICK: By that definition, right. Yes, thank you.

CHAIRMAN ANGELIDES: Five minutes?

COMMISSIONER BORN: Yes. And in addition to price risk on these contracts which you manage I'm sure by hedging and other devices, unlike what AIG was doing on its credit default swaps, there's some operational risk related to these contracts as well, and there is counterparty credit risk, which I assume, Mr. Broderick, is part of your job to oversee the management of? Is that correct?

WITNESS BRODERICK: Yes, it is.

COMMISSIONER BORN: And do you find it a daunting task to oversee counterparty credit relationships in more than 10,000 contracts and relationships, many of which have more than 10,000 counterparties, many of whom have more than one contract with you?

WITNESS BRODERICK: I think risk management across a firm such as ours is challenging and dangerous if not done properly. I think we have a very substantial organization supported by the highest levels in the firms that have resourced us extremely well across a number of areas that gives us a confidence that we are able to undertake credit risk management and market risk management and operational risk and other risk management effectively. That's not to say that we do not make mistakes, and we have, but I think by and large we have done it effectively.

COMMISSIONER BORN: Warren Buffett appeared before us at our last hearing and testified that he considers it virtually impossible to oversee the size of portfolio. He mentioned JPMorgan, but of course Goldman Sachs' portfolio is almost as big.

Do you consider it a daunting task? And what techniques do you use to manage it?

WITNESS BRODERICK: Warren Buffett is a very wise person. We'd welcome the chance to get him into our operations and show him exactly how we do think about the risk management of derivatives and other products, and so forth, and perhaps he would change his mind in this regard.

But the answer to the question is: We have very extensive groups which are dedicated to risk management as per the components that I mentioned earlier. They are also supported by a vast infrastructure group within the firm comprising about half the organization that includes the Controller's Group, which is responsible--which has final responsibility for the marks of our products and so forth across the firm. The Operations Group, which has many of the operational risk issues, including collateral calls and so forth. And then it's also supported by the business units themselves who have a very direct skin in the game when it comes to risk management generally, and take that responsibility seriously.

So the firm as a whole is focused on risk management in all of its component parks.

VICE CHAIRMAN THOMAS: Commissioner Born?

COMMISSIONER BORN: Yes.

VICE CHAIRMAN THOMAS: This side of the panel awards Mr. Broderick a 9 for his answer on the Warren Buffett question.

(Laughter.)

CHAIRMAN ANGELIDES: And investor relations will be extraordinarily pleased.

WITNESS COHN: Exactly.

COMMISSIONER BORN: I hope that wasn't on my time.

(Laughter.)

CHAIRMAN ANGELIDES: No. By agreement of the Chair and Vice Chair, it was, strangely enough.

(Laughter.)

VICE CHAIRMAN THOMAS: It was a nominal amount of time--notional, I'm sorry, that's it.

CHAIRMAN ANGELIDES: On Ms. Born's time, would you please add two seconds.

(Laughter.)

COMMISSIONER BORN: I think you mentioned to our staff, Mr. Broderick, that you think the lack of transparency in the over-the-counter derivatives market posed a certain risk management problem because you can't be aware of the potential exposures that your counterparties may have to other obligations.

And I wondered whether you were aware of any of AIG's other exposures?

WITNESS BRODERICK: The comment is accurate, and the association with AIG is entirely appropriate in this regard.

The fact is we were not aware, and really had no way of knowing what AIG's ultimate disposition in terms of risk exposures were, either in respect to the trades that we did direct with them, which is to say they could have laid off all or more than all of the risk of the trades that we did with them specifically--

COMMISSIONER BORN: So you weren't aware of whether or not they were hedging--

WITNESS BRODERICK: Let alone what--

COMMISSIONER BORN: --or otherwise making provision for those--

CHAIRMAN ANGELIDES: Two minutes.

WITNESS BRODERICK: --let alone what other counterparties were--

CHAIRMAN ANGELIDES: Two minutes, and then we'll wrap down. Go ahead.

WITNESS BRODERICK: Let alone with other counterparties were doing with them.

COMMISSIONER BORN: So were any other people at Goldman Sachs, to your knowledge, aware of either AIG's exposures or how they were hedging--whether they were hedging or not hedging those exposures?

WITNESS BRODERICK: No one was aware that I'm aware of.

COMMISSIONER BORN: The U.S. Government has bailed out AIG to the tune of $130 billion with additional pledges, and it has paid $40 billion on its CDS exposure.

Goldman in turn has received something like $14 billion for a number of the CDOs on which AIG had written credit default swaps.

Don't you consider Goldman's need for funds from the American Taxpayer and on these transactions, and on your counterparty relationship with AIG a risk management failure? Why did the American Taxpayer need to bail you out on this?

WITNESS COHN: Let me start, and Craig will finished because you asked two questions.

First of all, the total payment was $12.9 billion, of which $4.8 billion was in the secured funding book, which was just repo or reverse repo. It had nothing whatsoever to do with the CDO market.

And in the CDO market, the payments that were made there, Goldman Sachs, as we have stated many times, we were acting independently of any other event that may have happened in the market, or may have happened with AIG.

We were managing our credit risk, as well as market risk with them, as prudently as we knew how. And the moment they did not make a collateral payment to us, we took precautions. We spent our shareholders capital, and we went out and insured ourselves against an unforeseen and something we couldn't even think about event happening, because that's our rigor and our prudent risk management, is to just go out and insure yourself. If someone owes you money, you must go out and take some protection.

WITNESS BRODERICK: What else would you like me to address in that regard?

COMMISSIONER BORN: Well, I mean my time is up.

CHAIRMAN ANGELIDES: I think she wants to know why you took the money, and wasn't that an indication of failure?

WITNESS BRODERICK: I respectfully disagree with the implication. The fact is, as Mr. Cohn mentioned, we took money in one bucket because we were unwinding fully secured trades that we could have liquidated through alternative means and realize the same value.

We took money in a second bucket because AIG specifically wanted to change the form of its risk from derivatives into cash, and we facilitated, at their request, that transaction. And we took money in the form of the last bucket, which was CDS related margin payments that they owed us in due course, consistent with the government's objective of making creditors whole through this process.

WITNESS COHN: I think Mr. Broderick's statement at the end is the important statement. We did not ask AIG for the money. We were part of a solution where the government was involved trying to mitigate the future risk of AIG. We were part of numerous counterparties that simultaneously entered into a transaction where we would work to get AIG back the securities that were causing them the trouble. We would buy them from the counterparties that we had, and then we would re-deliver them to AIG.

COMMISSIONER BORN: So you never asked the Federal--nobody at Goldman Sachs ever talked to the Federal

Reserve Bank of New York about the terms of this, and how it should be done, and how you wanted your money 100 cents on the dollar? Is that your testimony?

WITNESS COHN: My testimony--no, that isn't what I said. My testimony is, in the 11th hour when the Federal Reserve was trying to strike a deal with the counterparties of AIG, yes, we had conversations with the Federal Reserve. But ultimately we were sent documentation on a Sunday afternoon and asked very vocally to sign it.

COMMISSIONER BORN: All right.

CHAIRMAN ANGELIDES: By the way, I am not going to ask any more questions, but I am going to clarify the request I made of you earlier.

In terms of giving us trading information, I just want to make sure--I don't want to be a broken record on this--when we get that trading information, it is for comparable securities, comparable trades.

Because just to be clear, what I am trying to establish is, as I said, following up on the Vice Chair, it is pretty clear that you helped build the bomb. It's pretty clear you built a bomb shelter. And now the question I want to get to is: Did you light the fuse? And this will be very important information in trying to determine what set of events happened and why. Thank you.

Mr. Hennessey?

COMMISSIONER HENNESSEY: Thank you, Mr. Chairman.

I am looking at this chart. Could we put that chart back up again? And I am very interested in this chart because I keep coming back to a few points over and over again. One is just about flawed assumptions about the housing market. One is about highly correlated risk. One is about concentration of risk in large financial institutions.

I have already expressed my skepticism about the notional amounts.

Mr. Broderick, you mentioned a $23 billion number with respect to credit derivatives. What does that number represent?

WITNESS BRODERICK: That number represents the notional value of trades, CDS across all products, across all the CDS products, by which I mean Abacus trades and other--and other CDOs and CDS transactions that we did with AIG against which they posted collateral. I think that's the answer.

COMMISSIONER HENNESSEY: Okay, so that's an AIG-specific--

WITNESS BRODERICK: Yes, it is.

COMMISSIONER HENNESSEY: --credit derivatives specific notional number?

WITNESS BRODERICK: Yes, that's correct.

COMMISSIONER HENNESSEY: Okay.

WITNESS BRODERICK: And that may be off by a little bit. I don't remember the precise numbers.

COMMISSIONER HENNESSEY: Just ballpark. And--but you have some sort of economic measure of your actual exposure of counterparty risk to any firm and any product in this chart, right?

WITNESS BRODERICK: Yes, we do. And I think by that you mean credit risk, specifically?

COMMISSIONER HENNESSEY: Yes.

WITNESS BRODERICK: Yes.

COMMISSIONER HENNESSEY: And can you give us a sense of order of magnitude? I mean, we're seeing numbers on here which are measured in hundreds of billions and trillions of dollars in terms of notional amounts.

WITNESS BRODERICK: Right.

COMMISSIONER HENNESSEY: When you're looking at actual counterparty credit risk with a particular firm, and not concentrated in a line, when you're looking at SocGen or Credit Suisse, or something like that, and you're thinking about the economic credit counterparty risk you face--

WITNESS BRODERICK: Yes.

COMMISSIONER HENNESSEY: --that number is measured in?

WITNESS BRODERICK: So in the case of a typical financial institution, we would have a series of collateral arrangements of, let's say, basic as other trading arrangements, each supported by a collateral arrangement with a trigger level, where that trigger level would be set at very low levels.

And so let's say that we have zero triggers across three products where we have a certain amount of business that we're likely to do. What we would therefore do in calculating exposure is say we have theoretically zero exposure, right, because of the collateral arrangements set at that level.

However, we know that there is a delay between the time that a market moves against the client, which would trigger a collateral posting requirement on their part, and our calling for them, to them for that collateral, and their posting it or not, as the case may be. And if they don't post it, then we close them out.

And so there is an inherent delay in that whole process. And so what we do is take, for the most part, a two-week collateral collection/close-out period, and we calculate a potential market move over that period.

That gives us what we call a collateralized potential exposure figure, which is probably the most appropriate reference for this purpose.

The numbers vary depending on the details of the trades we do with our clients, but they are, you know, orders of magnitude smaller than what you see in the way of notional exposures here. They're measured in the, for large counterparts, tens or maybe hundreds of millions of dollars. In the case of AIG, it was at the higher end of that range, which is the reason that we supplemented our normal risk mitigants with a separate set of arrangements under which we purchased credit protection externally in the market for essentially this margin shortfall.

COMMISSIONER HENNESSEY: Okay--

WITNESS BRODERICK: And then you get down to numbers that are quite small.

COMMISSIONER HENNESSEY: --two follow-ups here. One is the way that you think about this, the chart here is very colorful, but I notice that a lot of these large financial firms are showing up in multiple colors.

WITNESS BRODERICK: Um-hmm.

COMMISSIONER HENNESSEY: I presume that the way you think about it is on a firm level, rather than a firm-and-product basis, right?

WITNESS BRODERICK: Correct.

COMMISSIONER HENNESSEY: What happens if Barclay ceases to exist or doesn't pay us. And then you're looking at your exposure across all of the different transactions?

WITNESS BRODERICK: And our risk measures are very comprehensive in that regard. We aggregate on as close to an apples-to-apples basis as we can across the different derivative transactions and different non-derivative transactions that we do. Our systems aggregate that effectively, yes.

WITNESS COHN: And to just put some real quick clarity on that. In these big circles, and these circles that appear multiple times are what we would consider market professionals trading counterparties.

We have very little exposure to them. When they margin us, we margin them on a nightly basis.

COMMISSIONER HENNESSEY: Okay, so--

WITNESS COHN: And in a Barclays with $2 trillion, I would say my overnight exposure would be measured maybe in $100 million depending on how big of a market move. And it's sort of what we would call "daylight risk."

So from tonight's close to when they pay me, I make the call. They agree to the call. We pay each other tomorrow.

COMMISSIONER HENNESSEY: Okay. Because what I'm getting at here is that I don't think this chart is helpful to me because it's in terms of notional exposure, for one.

Two, it's breaking apart the counterparty risk into different types of financial structure, which I find confusing.

And then three is, I think I'm supposed to conclude something based on the relative sizes of the circles, but what I hear you telling me is that when you're measuring--when you're comparing the relative sizes of the circles from an economic standpoint, what is a small circle here may be bigger, and what's a big circle--Barclays circle--may in fact be quite small because of the nature of the risk that you're bearing with respect to them? Is that a--

WITNESS COHN: Correct. And in fact I'm looking to see here, I was looking to see because there's a small circle that actually has a lot more risk associated with a big circle because we would have a nonstandardized market making trigger with them.

So I don't really see anyone on here that's a small circle, because almost everyone on here is what I would consider a market professional. Market professionals pay each other each day in the market.

VICE CHAIRMAN THOMAS: Would the gentleman yield briefly?

COMMISSIONER HENNESSEY: Yes, please.

VICE CHAIRMAN THOMAS: I was trying to figure out how we might deal with this, and what I was thinking of was maybe a pie chart for each of them so that there would be segments pertaining to, I don't know, maybe there's nine or so, but what I'm hearing you saying is the way that you really keep the balance is more like you do with a buddy where they bought dinner last night, and I'm buying it tonight, and the difference is six bucks.

So it's always the difference of what you owe and collect, rather than any kind of total amount? Since you aggregate your risk totally?

WITNESS COHN: Correct. So--

VICE CHAIRMAN THOMAS: So even putting it into a pie chart to look at the pieces wouldn't necessarily focus this. And I'm throwing us on your mercy to give us some way to really judge what it is that we're looking for.

WITNESS COHN: And I'll try and do this easily.

VICE CHAIRMAN THOMAS: I thank the gentleman. It's on my time.

WITNESS COHN: Take a Barclays. We're picking them because they're in the lower right. With Barclays we probably trade with them in a variety of legal entities across a variety of different products.

Each legal entity has to get netted down. So if they have longs and shorts, and we have long and shorts, we, between ourselves, mark to market. We mark it all at the same place.

COMMISSIONER HENNESSEY: Within an entity?

WITNESS COHN: Within a legal entity.

COMMISSIONER HENNESSEY: A subset of Barclays, and so forth?

WITNESS COHN: I don't want to get too complicated through all the legal entities, but with Barclays we would mark our book, they would mark our book. They would say, hey, based on our longs and shorts, you owe us $10 million. We'd say, yeah, we think we owe you $9.9875. We'll send you ten.

And that happens every day. And so we do that with Barclays every day. We do that with JPMorgan. We do that with Morgan Stanley. We do that with SocGen. We do it with Perabot. We don't do that with General Motors.

So if we've got a derivative on with General Motors, we would not collect from them until it got to the margin trigger. So these are what we would call zero triggers, daylight risk. We'll trade with you. The market will move. We'll settle tomorrow. And that's how the interdealer market pays each other.

So these--if I actually went and took that chart and made it exposure, all those dots up there would be tiny and we'd put up other bigger dots, which would be clients.

COMMISSIONER HENNESSEY: Clients, like General Motors, or whoever.

WITNESS COHN: Berkshire Hathaway, General

Motors, GE. You know, you would go into other corporate type clients. Or governments. There would be a lot of governments in there.

COMMISSIONER HENNESSEY: So on any given day, your actual economic risk exposure to various firms is much larger to nonfinancial firms, or to non, what is it, dealers, than it is to these firms?

WITNESS BRODERICK: That's sometimes the case. The only point I would note is--and Mr. Cohn was mentioning specifically derivatives exposures because that's what's included here--when you think about banks, the only other significant issue to mention is we have other types of exposures, as well.

For instance, deposits which we maintain. Now they're overnight. And so they don't constitute a lot of long-term risk, but certainly some of the numbers can get relatively large.

WITNESS COHN: If you were to sit in our Risk Committee, which meets every week, and our detailed risk packet, we have the largest exposures listed there. They would not be the names on this sheet of paper.

COMMISSIONER HENNESSEY: Okay. And I think you've already answered one of my questions, which is you will sometimes explicitly hedge your counterparty credit risk with a particular firm. And it sounds like you did that with AIG once you figured out that they weren't as good of a risk as you initially thought?

WITNESS BRODERICK: I think that's right, although I would amend the last part of that. We hedged our risk with AIG by agreement going back quite early in our trading when they were a really good--or we conceptually agreed to hedge our risk going back when they were very good credit. We only needed to start acting on that in a material way when they started missing margin calls. Because that's what gave rise to that requirement that we hedged essentially the uncollateralized portion of our risk.

COMMISSIONER HENNESSEY: Okay, so can you qualitatively characterize for me in that third week in September when AIG was failing, presumably you all had already started hedging a lot of your AIG-specific risk. How exposed was Goldman? Was the survival of your firm in jeopardy if AIG ceased to exist?

WITNESS COHN: No. We were hedged long, long before that. What Craig was saying, at some point you get enough exposure to a company that, just as a natural risk mitigant, you start buying credit default swaps.

COMMISSIONER HENNESSEY: Now we heard--

WITNESS COHN: So we were hedged long, long before that period of time.

COMMISSIONER HENNESSEY: Now we heard from a panel of experts this morning that they believed that if the New York Fed had not dumped $85 billion into AIG that there would have been massive systemic effects.

Understanding your answer on Goldman, do you agree with that, either for other large firms, or for the system as a whole?

WITNESS COHN: Yes. I agree with that. And I am surely happy we didn't have to find out.

COMMISSIONER HENNESSEY: And why? Was that because other firms were not managing their counterparty risk like you were? Or was it some fear factor? Or what was the reason for that?

WITNESS COHN: I think it was both of those. It was other firms had more liberal lines with them. Other firms had less collateral. They were just at the nature of literally billions of dollars of cash flows in securities that would of had to have instantly been replaced.

It's not just the fact that they ceased to exist and they owe you money. You've got a huge replacement risk. So if you had a flat book and AIG was on one side, all of a sudden they disappear, you have to go into the market and replace.

The market didn't have the capability to replace everything that AIG was on the other side of simultaneously. As we know how big their books were, this was an event that would be too big for the market to deal with in a specific moment of time.

COMMISSIONER HENNESSEY: And that's because AIG was too large a share of the total capacity of the market?

WITNESS COHN: They were very concentrated in certain financial instruments. And the breadth and depth of those markets would have ceased to exist, and AIG was most likely, in most of these products, one direction. Meaning that everyone would need to replace the exact same thing simultaneously. Anyone who was willing to replace it would know that the market had a huge dislocation, and there was not a normal supply/demand factor.

COMMISSIONER HENNESSEY: So everyone did this one kind of business with AIG. With AIG gone, there would be nobody else. And whoever else wanted to get on the other side of that trade would have just charged an arm and a leg?

WITNESS COHN: Correct.

COMMISSIONER HENNESSEY: Okay. Following up on Commissioner Born's questions earlier, I think I get your answer, which is you are a client service business and that you are in the business of doing what your clients want in providing them with those products and services. I understand that sometimes you can't lay off the risk from one of those transactions and so you've got to hold it. And you're earning gains and losses on that risk that you're bearing.

I understand that sometimes you all say, you know what, we are holding too much of risk X that we've accumulated because we've been doing services for clients, so let's try and--you know, let's pay a little more to offload it.

Are you saying that sort of at ya'll's level, at the firm level, you're never saying: You know what? Here is a kind of risk where we think we should bear more of it and let's increase our exposure to that risk?

I understand that that's a small share of your business, but are you saying, you know, come on, actually this risk is priced pretty cheaply. Let's dial this up?

WITNESS COHN: At our level we are always pushing back in the organization. The natural organization will tend to grow and want to do things. At Craig's and my level, our responsibility is prudence to be far enough away from the business to take a macro view and make sure that everything is in line relative to everything else we're doing in the firm.

COMMISSIONER HENNESSEY: So you--

WITNESS COHN: So it would never come from the office, from the senior management office, to increase risk. It would come--

COMMISSIONER HENNESSEY: --from a business unit saying, hey, we think we can make money X because this is mispriced?

WITNESS COHN: Yes. It tends to push--the risk-on would push up through the organization; risk-off pushes down through the organization.

WITNESS BRODERICK: And that's not inappropriate from a fundamental market making perspective, either, right? Sales people and traders interested in providing the best service to clients from time to time see the benefits in prepositioning, for example, some inventory when they think that it's going to be especially attractive.

And so even with a purely market making function in mind, which is what characterizes most of our business, there are entirely consistent reasons for putting in place inventory, or short inventory for that matter.

WITNESS COHN: And then there's numerous trades that need to be approved through the organization. And Craig and I, as well as David Viniar, it is our job to not approve those for a lot of different reasons; they just don't meet the hurdles, they don't meet the benchmarks; they're just not prudent for us to have on.

COMMISSIONER HENNESSEY: Got it--

WITNESS COHN: So there are certain levels where things naturally have to gravitate to us.

VICE CHAIRMAN THOMAS: Mr. Chairman, yield him two additional minutes.

COMMISSIONER HENNESSEY: Let me ask, a few of us had a line of questioning of the expert panel this morning about naked credit default swaps, or perhaps calling them "side bets."

My question was: If a naked credit default swap is properly capitalized and transparent, is there any downside to it from a systemic standpoint? Is there any externality that is created by it by having lots of side bets?

And then, is there--Senator Graham's question--what is the benefit to the market and to the financial system as a whole of having these naked transactions exist?

WITNESS COHN: "Properly capitalized" was the key words when you asked the question. Properly capitalized, I have no problem. And in fact I think there is a benefit to having a CDS market.

Let me first explain to you--and this is a relatively short history--the biggest advent in the mortgage market in the last 15 years was or is the ability to go short.

Prior to that period of time, you could have two positions in the mortgage market. You could be flat, have no position; or you could own mortgages.

It was really in the modern trading world that you had any ability to take a negative, or contra view in the mortgage market. So what happened?

First of all, we attracted more capital in the market. So more people were willing to buy mortgage and mortgage security because they knew if things went wrong they would have an ability to hedge. They would have an ability to get out. They could manage their risk.

It was also a risk transference. In all of these securities you were transferring risk. Someone ultimately wanted to own the risk, and so you were transferring risk into another area. More trading. More capital. Means more price transparency. And that is important for a market.

These were diversified portfolios. The other thing that you had in the mortgage market prior to these amalgamated securities is if you went out and bought a mortgage you owned that mortgage in that area. And it was very difficult for people to amalgamate mortgages in a variety of different states, a variety of different counties, a variety of different underlying collateral.

What these securities did is they allowed you to build a highly diversified portfolio of mortgage exposure. So if you wanted Florida, and you wanted California, you didn't want Ohio, you could do that. If you wanted subprime, you could do that. If you wanted a combination of subprime and credit cards, you could do that.

That evolution helped spur this market on. And the ability that that created was really why this product grew, why it grew so fast, and why it allowed home ownership to grow simultaneous.

But I go back to the beginning. You needed to have the adequate amount of capital involved.

COMMISSIONER HENNESSEY: Okay, so your contention is that the increased amount of capital that increased home ownership that occurred from this new product was a good thing, and that the bad aspects of it are in effect entirely a result of the lack of capitalization and lack of transparency?

WITNESS COHN: What really happened here is, as the mortgage market got more--

VICE CHAIRMAN THOMAS: Yield the gentleman one more minute.

COMMISSIONER HENNESSEY: Just for this answer.

WITNESS COHN: As the mortgage market got more sophisticated and we went to higher loan-to-values, and we went to less income verification, and we came up with all these new exotic products, what the end result of that was is you made the performance of the underlying asset that much more important. Especially when you have a 100 percent loan-to-value loan, you don't have a lot of wiggle room in the collateral.

So as we expanded these new products, we really expanded the reliance on home price at least holding steady, but mostly appreciating. And what happened is, we didn't increase capital as we increased the sophistication of the underlying mortgage.

COMMISSIONER HENNESSEY: So it became more sensitive to the accuracy of the projections of default and assumptions of home prices, those kinds of things.

WITNESS COHN: Yes. Look at--I'll give you some examples. Mortgage number one, you buy a mortgage, a $100,000 mortgage. You put down $20,000, 20 percent down.

Mortgage number two, $100,000 mortgage, you put no down. Housing market retrenches 10 percent. We still have 10 percent positive equity over here. The bond holder who bought the security, he's still fine. He's got a 10 percent cushion.

Bond holder over here that bought the security, uh-oh, we already have a negative shortfall of 10 percent if that house gets foreclosed.

So, yes, the reliability on the performance of the underlying asset really exploded and we forgot to attach the proper amount of risk capital to that risk when the asset went down.

COMMISSIONER HENNESSEY: Thank you, Mr. Chairman.

CHAIRMAN ANGELIDES: All right. Thank you. Mr.

Wallison?

COMMISSIONER WALLISON: Thank you, Mr. Chairman.

Was AIG an outlier in terms of the amount of obligations that they took on in relation to others in the market, and without apparently hedging?

WITNESS BRODERICK: In retrospect, they clearly were. They weren't the only--it's worth noting, they weren't the only entity that went long subprimes, and others did as well, but they certainly in hindsight were the longest and the least hedged.

COMMISSIONER WALLISON: When did you, when did Goldman decide to get substitute, or additional coverage for its exposure to AIG?

WITNESS BRODERICK: And by that you mean external hedging in the market?

COMMISSIONER WALLISON: Um-hmm.

WITNESS BRODERICK: We agreed conceptually to do that at the time we started trading with them in reasonable size. And when I say "conceptual," I just mean putting in place the facilities to start trading. And that really goes back to I think it was '04; it might have been actually earlier than that, but it was well before we had any real risk then, however defined. We actually only started to need to hedge under the GAAP process that I mentioned earlier when they started missing margin calls.

COMMISSIONER WALLISON: But you did actually seek coverage even before they started missing any of these calls.

WITNESS BRODERICK: We put the structure in place to provide coverage.

COMMISSIONER WALLISON: Was this your customary way of dealing? Or was there something about AIG's exposure that caused you to be wary of where they might be going?

WITNESS BRODERICK: There's certainly nothing exceptional about their exposure. I would say that this is not an unusual practice. It's not standard across all of our large financial institutions, but it's by no means--by no means unique.

What was interesting to AIG--about AIG in this regard was that we had a number of different trading arrangements with them, each of which had trigger margins that were larger than our customary, zero to use the examples which Mr. Cohn did and which are in fact pretty customary among the large financial institutions. These triggers were $50 million, or they were a percentage of outstanding trades, or some other variation, which on a one-off basis wouldn't have caused us particular concern.

But across the totality of many lines, with many AIG entities, it just seemed to us to be prudent to put in place this additional hedging arrangement. And so we did, long before there was any real requirement for it.

COMMISSIONER WALLISON: But did you stop placing these requests, or these obligations, with AIG at that point?

When you started hedging in effect your AIG obligations, which were already hedging something else, I assume, did you stop dealing with AIG?

WITNESS BRODERICK: The significant collateral calls for AIG occurred in the third quarter of '07. We had stopped doing really any material business with AIG long before then.

COMMISSIONER WALLISON: "Long before then"? Can you put a date on that? Was it 2005?

WITNESS BRODERICK: It was late 2005, early 2006. We did a couple of transactions in 2006 that were not subprime-related.

COMMISSIONER WALLISON: That sounds like it's about the same time that AIG itself started turning off the spigot, so to speak.

WITNESS BRODERICK: Yes, that would be--

COMMISSIONER WALLISON: Was there anything that you all were seeing in the market at that time that caused you to think that maybe you were too exposed to AIG?

WITNESS BRODERICK: By--I'd have to go back and look at our records in detail, but I think the answer is, no, at the time in late '05 early '06 the markets had not moved materially at all. Our current exposure was pretty de minimis, and so it would not have caused us any particular concern.

They were still a AA credit. They were still extremely well regarded by the market for all sorts of issues, through all sorts of parameters.

COMMISSIONER WALLISON: Mr. Cohn, why did Goldman become a bank holding company and go under the wing of the Fed?

WITNESS COHN: At the time we became a bank holding company, the market was in severe turmoil and there was a lot of volatility around the market, and a lot of volatility around funding markets, and a lot of volatility around price discovery and everything else going on.

At the time, we felt it was prudent to get the imprimatur of the Fed regulation. And having Fed regulation was something that shareholders, as well as counterparties, as well as clients of Goldman Sachs thought was a very good thing to have. And we also agreed it was a good thing to have to be under the umbrella of the Fed regulator was important to us.

So at the time we made a decision that we would be Fed regulated. We thought it was something that was going to happen inevitably anyways, and at that point we just decided that it was time to do it.

COMMISSIONER WALLISON: Were there any difficulties in short-term funding positions for Goldman Sachs at that point?

WITNESS COHN: Not particularly. The funding markets were difficult, but we were getting everything funded. Spreads were wide. You were paying more, but the availability was there.

COMMISSIONER WALLISON: What about your--how much were you funding, if any, overnight?

WITNESS COHN: I don't know the specific number. We tend to run our book very small on an overnight funding basis.

Mr. Viniar, who is here tomorrow, will know those numbers cold. But I think you will see that it was a very small number. We tend to term out all of our repo. And we pay up to term out our repo.

COMMISSIONER WALLISON: So even though you weren't doing much funding overnight, you felt threatened by the conditions in the market?

WITNESS COHN: The market environment was very difficult.

COMMISSIONER WALLISON: And how, exactly? Can you explain that to me? I'm having a little bit of trouble understanding that. I can understand if you were like, say, a Bear or a Lehman, which were funding overnight. I take it you were not doing that very much?

WITNESS COHN: We were not.

COMMISSIONER WALLISON: You were not under that kind of pressure. So what was the reason to go under the wing of the Fed?

WITNESS COHN: As I said, Mr. Viniar will give you detail on our funding book night by night, if you'd like. The--the issue that was going on was, was really the marketplace in some regards really concerned about the regulatory environment, concerned about how you ran your business, concerned--and our clients, and our counterparties, as well as ourself, thought it was a good idea to be under the Fed regulation.

COMMISSIONER WALLISON: Did you ever use the Fed's discount window?

WITNESS COHN: We used it one night at the request of the Fed to make sure our systems were linked with their systems, and it was for a de minimis amount of money.

COMMISSIONER WALLISON: You never had to use it after that?

WITNESS COHN: No. And as I said, we used it on the Fed's request for de minimis.

COMMISSIONER WALLISON: Why did Goldman Sachs buy credit default swaps from AIG? Was it to protect anything in your portfolio? Or was it to lay off, or hedge obligations that you had already assumed to your clients?

WITNESS COHN: Most of it was the latter. Most of the transactions we had with AIG were the other side of client transactions, where we were putting the pieces of the puzzle together and they were one of the pieces.

COMMISSIONER WALLISON: I take it that you did not, as you said at the outset--and I thought this was wonderfully candid and valuable to us--that you did not anticipate what was going to happen in the future, but you did begin to reduce your exposure.

What is the difference between "not anticipating what's going to happen in the future" and "reducing your exposure"? Why did you do that?

WITNESS COHN: We reduced our exposure on the fact that our position consistently, day by day, was losing small amounts of money. And we were uncomfortable with what was going on in the market.

So we made what we figured to be a very prudent decision to minimize or negate as much risk in the book as we possibly can, and get closer to home. And literally we were trying to have no position. We were trying not to be long, or not to be short.

COMMISSIONER WALLISON: Can you put a little bit more on the term "uncomfortable about what was going on in the market"?

This--gut feelings in an organization as data driven as Goldman Sachs doesn't quite feel right. What do you mean "uncomfortable"?

WITNESS COHN: Craig will elaborate.

WITNESS BRODERICK: I think the simple matter is, we had positions that we thought from a risk metric perspective were low risk, and by that I mean low volatility, and pretty well balanced across, in certain respects across the firm, and yet they lost money, as Mr. Cohn mentioned, for some relatively short period of time, like 10 days in a row.

And one of the most important risk metrics that we have is daily P&L. And what we do is sit back and say, given what we understand about the positions that we have on, should we in reference to specific market moves in a specific day, or longer period of time, expect to have made money or lost money for that position?

And our answer--you know, our expectation for those positions that we had on was that we should be relatively flat. This was a very low profit-margin intermediation business that we were running. And so long as it was really low risk, then we were happy to run it.

Once you start losing money for several days in a row, it causes you to question your basic understanding about the business. It doesn't suggest that you think, gee, there's a lot more going on here than we thought and the bottom is going to fall out, or anything nearly as directionally specific as that. All it means is there's something that we do not understand, and we are sitting with a fairly long position because of the client trades that we talked about earlier. Maybe we should just flatten--maybe we should just reduce the overall risk until we figure out what's going on in the market.

Then if we like the market at that point, we can get back in. Or if we don't like it, we can stay flat.

WITNESS COHN: I'll be very succinct. Our risk reports and our P&L decoupled.

WITNESS BRODERICK: Yes, that's a good way of putting it.

COMMISSIONER WALLISON: Please complete that a little bit more. We love the succinctness, but...

WITNESS COHN: Okay. Our risk reports were telling us one thing, and our P&L was doing something different than our risk reports said it should do.

COMMISSIONER WALLISON: What do you mean by "risk reports"?

WITNESS COHN: We run a vast majority of risk reports, scenario analysis, what if, all these moves, all these correlations, uncorrelated, jump to default, jump to risk free, I can go through hundreds of them. But our risk reports would have said--did say at the time, because I remember going through this, that these securities in our portfolio should react like this.

It wasn't. There was a breakdown in what was going on in all of our risk reports, which to some extent are all based on historical data, and exactly what was going on in the market.

COMMISSIONER WALLISON: What was the time frame on that?

WITNESS COHN: That was end of December.

COMMISSIONER WALLISON: December of what year?

WITNESS COHN: Of '06.

COMMISSIONER WALLISON: So at the end--

WITNESS COHN: That period where we got closer to home, derisk, started in end of '06.

COMMISSIONER WALLISON: So what you're saying is that the numbers that you were expecting to see in the market, which were not otherwise visible to anyone else, were warning you that the market wasn't behaving the way it normally would behave?

WITNESS COHN: The numbers I'm talking about were very visible. We had a large position in AAA conforming residential loans. AAA conforming residential loans had never moved more than a point in a month in decades. All of a sudden they were moving in two-point increments in a day.

Our risk report said that can't happen. We didn't understand what was going on. When we got to that point, we said: If our risk reports can't say it happens, and we've got the position, we have a duty as caretakers of the firm to get rid of that position and assess what's going on with our risk reports and what's going on in the actual market.

COMMISSIONER WALLISON: Well if it was visible to everyone else in the market, why were you the only ones who were acting on it?

WITNESS COHN: I can't answer that.

COMMISSIONER WALLISON: Was your--I assumed the answer would be that your risk management techniques were better, more sophisticated, or were you doing a different kind of business in some way.

WITNESS BRODERICK: I think what I would say is, the question implies that we had some great understanding or expectation of how markets would move in the future, and the fact is we really didn't. We sat there and said, hmmm, the markets are moving in a way that's unexpected. Can we explain it? Not really. But it looks like there's some more down side on a risk/return basis than we had in mind.

And so I think the direct answer to your question is: It's not a view of how the market will move or anything else, as merely equating risk to return and determining that at that particular moment there was more risk relative to the return than was expected in the business. And so the prudent thing to do is to reduce the risk.

WITNESS COHN: My only inference would be that we are very adamant at marking our books at real prices every night. And we were not in denial. And we are never in denial. Real trades are where we mark the book, whether we think they make sense or not.

VICE CHAIRMAN THOMAS: Would the gentleman yield briefly?

COMMISSIONER WALLISON: Sure.

VICE CHAIRMAN THOMAS: I mean, from what we have heard from everyone else, that to me is the fundamental difference. That those folks who ran up against reality that didn't fit their model, either froze or tended to believe the model far longer than they should have.

And your technique of looking at profit and losses and forget the model if it isn't showing up in terms of profit or loss, you get out until you can figure out why.

WITNESS COHN: Correct.

VICE CHAIRMAN THOMAS: No one, no one has said that was the way they operated. So I now understand one basic difference between you and a few other folk that we've had in front of us. Thank you for the time.

CHAIRMAN ANGELIDES: Thank you. And what we're going to do is--

COMMISSIONER WALLISON: I'm going to come back.

CHAIRMAN ANGELIDES: Yes. Mr. Georgiou, and then we will come back to you, Mr. Wallison. Thank you.

COMMISSIONER GEORGIOU: Thank you very much for accommodating me, Mr. Chairman.

I would like to suggest, Mr. Cohn and Mr. Broderick, that this characterization of Goldman Sachs as exclusively client driven and having been forced into these postures by clients is somewhat too facile in my view.

For example, you say you were hedged on your risk that AIG might fail. Once they failed to put up collateral willingly in connection with the marks that you established, you had to go out and put hedges against their potential failure.

But we never had to test the proposition of whether those parties who were your counterparties on those hedges were prepared in the circumstances that you called upon them to actually pay up. You know, nobody will know that.

I understand that you put those hedges up, but of course people had hedges with AIG and nobody knows the answer. I guess I wanted to try to get to a point.

A few hearings ago I asked Hank Paulson, who of course was your former CEO and the former U.S. Treasury Secretary under President Bush, and one of the architects of the bailout, I said: How difficult is it to reconcile the conflicts associated with the various roles played by Goldman Sachs and other investment banking firms? Not just Goldman Sachs.

You know, one, you have a role as an underwriter of securities where you owe fiduciary duties to the investors who purchased the securities, and to the issuer of the securities for which you're raising funds.

You act as a neutral market maker creating and placing instruments for clients who come to you seeking to undertake or offload a particular risk. You act as a proprietary trader, acting for your own account. And perhaps also as an advisor representing buyers or sellers in acquisition transaction or either party in a merger.

And I asked Hank Paulson how difficult it was to reconcile all those different roles. And he said: Exceedingly difficult. And that's the ultimate challenge for the managers of an investment bank, the shareowners of an investment bank, and ultimately regulators of an investment bank.

You know, these are all different roles that you play legitimately within your business structure, and not all of them are consistent.

For example, when you asked for collateral from AIG and gave them marks which they weren't satisfied with with regard to your exposure to them, some of your other clients like Bear Stearns Asset Management and others probably wouldn't be too happy if those marks were established in the marketplace either because that might require them to down-price, to mark their own book to market, which would have an impact on them.

And I guess we have an e-mail somewhere that Mr. Sparks and the mortgage group on the CDOs and CDO-squares wrote that the marks will potentially have a big P&L impact on Goldman's clients, and that Goldman needed to survey our clients and take a shot at determining the most vulnerable clients' knock on implications, et cetera. This was important to senior management, writing this is getting lots of 30th floor attention right now.

I am not suggesting that you were differentiated in that regard from a number of other parties, but this was an instance where you had positions. You were trying to protect your position by getting more collateral. The lower you identified the mark, the more collateral you got.

But the consequence to some other clients of yours might have been detrimental, or perceived to be detrimental by them in establishing a mark that was lower. And since nobody knew what the marks, the proper marks were for some of these securities, you are there.

So I guess I am just suggesting to you that if ought not be--we ought not to leave this room thinking that it is so easy to establish that there aren't conflicts that have impacts on your clients when you're acting on your own account, or vice versa when you're acting on behalf of a client you might impact your own account in certain instances.

And I guess one of the things that I want to identify with the chart, what we have is charts 2 and 3, is sort of the amplification of risk that was created by a number of essentially collateralized debt obligations and synthetic CDOs, and CDO-squared, and a variety of other instruments that created more risk than you would expect.

CHAIRMAN ANGELIDES: Chart 2?

COMMISSIONER GEORGIOU: That's chart 3. That one is coming next. So you can leave it up there if you want, whatever.

CHAIRMAN ANGELIDES: Chart 2 is what he's asked for.

COMMISSIONER GEORGIOU: Chart 2. And this is a chart which shows a lot of deals, basically. And there are underlying residential mortgage-backed securities which then become referenced in collateralized debt obligations.

You know, you have the mortgage-backed

securities. You have the lowest rated tranche north of equity, the BBB traunch. Then you slice and dice those into a CDO. And then they get used in the creation--some of these tranches get used in the creation of a whole series of other securities.

And it has an amplification effect where some of the tranches get used over and over and over again. For example, some securities are replicated. 2537 of the times, of the securities that you folks created, the 3408 were used again. And then 610 were used actually a second time. And 170 were used a third time. Even to one that was actually used in 9 deals.

Now what that does is of course if the underlying tranche fails, it has an impact on a whole number of deals, potentially. And this amplification effect comes from, in a sense, servicing what you argue are your clients' demands to be in these various instruments.

But it ought not to be forgotten that these various instruments also generated fees for the firm, which of course you are entitled to make. Let me look at number 3 that also has a--sort of shows it in a slightly different way, which just takes a couple of the things that you did and shows that the original value of the C Tranche for example of a particular funding, Glacier Funding, was worth $15 million. But if you amplify it through all the other deals that it got used in, it ended up having an $85 million essentially, in a sense, notional value. But when it failed in any of those--the underlying tranche failed, it impacted all of these securities.

I can never figure out why it is that they always use Greek names to construct these securities. It's sort of embarrassing. You know, all these toxic securities. But they do.

And I guess then I would like to look at four-- you know, so that's just an amplification which I think is really not an answer.

CHAIRMAN ANGELIDES: Senator Graham is going to reference the other two charts.

COMMISSIONER GEORGIOU: Is that right?

CHAIRMAN ANGELIDES: Yes.

COMMISSIONER GEORGIOU: Okay, well that's fine. Let me just leave it.

I just wanted to make one last--I guess I didn't really get to ask you a question, for which I'm sorry because I've got to go off to another appointment. I guess I would just ask you all to reflect upon the dilemmas faced by regulators, and really within your own firm, of trying to ensure that the various roles that you play are appropriately recognized and appropriately tempered.

I guess, could I just have 30 seconds for them each to respond to that?

VICE CHAIRMAN THOMAS: Or you could ask them to respond in writing.

WITNESS COHN: I can do it in 30 seconds.

CHAIRMAN ANGELIDES: Go ahead.

VICE CHAIRMAN THOMAS: Oh, come on. It's a very difficult, complex response to all those charts.

WITNESS COHN: I'll be succinct. It's 47 total deals is what you're talking about there. 3400 securities. This is no different than the tens of thousands of swaps that are written every day on the S&P 500. There's 500 underliers. And if one defaults, all 10,000 of those swaps are affected.

This is no different than the tens of thousands of swaps written every day on the U.S. dollar versus another currency. Or, more importantly, on U.S. Treasuries. It is one reference point that is involved in tens of thousands of securities.

This is the way that the financial markets work. People choose a specific security that they want exposure to, whether it's pooled or unpooled, and they aggregate it. The Dow's go 25 stocks in it. I guarantee you there's tens of thousands of swaps, or securities written with Dow components.

COMMISSIONER GEORGIOU: Well whether you push or they pull is always subject to some question, I guess that's is all I would say. And of course you're earning fees each time you do it, and really that's one of the--that's obviously one of your functions. So I'm not suggesting that's inappropriate.

Mr. Broderick, just a quick response and then we'll go on to the others.

WITNESS BRODERICK: So long as the individual entities entering into these trades are well capitalized, then there is no particular issue. I think the point that has come up again and again in derivatives generally, and in other types of instruments, including securitization, is whether there is adequate capital ascribed against the risks.

COMMISSIONER GEORGIOU: Right. But everybody who has testified before us has essentially told us they thought they were not adequately capitalized, from Alan Greenspan on.

WITNESS BRODERICK: And therein you have the real problem, not so much the reliance on a single outlier.

COMMISSIONER GEORGIOU: Thank you very much. I appreciate the courtesy.

CHAIRMAN ANGELIDES: Senator Graham--oh, I apologize. Mr. Wallison to finish up. I apologize. What's the allocation of time, Mr. Vice Chair?

VICE CHAIRMAN THOMAS: Three minutes.

COMMISSIONER WALLISON: Three, did you say?

VICE CHAIRMAN THOMAS: Yes. For now.

COMMISSIONER WALLISON: Good. Thank you. I just wanted to finish up, but I wanted to follow up on some of the things that my brother Byron was just talking to you about.

Why were synthetic MBS created, mortgage-backed securities, synthetic mortgage-backed securities? Would you like to answer that, Mr. Cohn?

WITNESS COHN: Well, I'll answer it. Again, there were participants in the market that wanted exposure, that clearly leverage is one of the components that drove their decision. But the leverage available in these synthetic CDOs is no different than leverage that is available in many other markets today, and many other listed markets today.

So in trying to compete with other listed markets, this market-by-market participation desire to get more leverage, they created a more and more levered product.

It also was created for real customization, really being able to slice and dice up different sections of the mortgage market, different regions, different asset classes, different securities. It's very difficult. It's impossible to do them in cash form. If you do them in cash form, someone actually has to go out and buy it. That's a way to get long. But a way to get short, you need the synthetic security to get short.

COMMISSIONER WALLISON: These were imitating real nonsynthetic securities? Is that right?

WITNESS COHN: Just as the S&P 500 does. It imitates real, underlying stocks. These were imitating real underlying mortgages.

COMMISSIONER WALLISON: So there was demand for this exposure by some group?

WITNESS COHN: Correct.

COMMISSIONER WALLISON: Why was there demand for this particular kind of instrument? Why synthetic rather than, I'll call them, "real"?

WITNESS COHN: Well, again, if you take a real exposure you can only create a real exposure from the long side.

COMMISSIONER WALLISON: Um-hmm.

WITNESS COHN: To have a real exposure, you go out and buy the securities. You go out and buy the mortgages. Okay? If you go out and buy the mortgages, they are in pools. So you've got to buy the whole pool.

Maybe you don't want the whole pool. Maybe you don't want the first 10 percent default, you want the second ten percent, and you want the bottom ten percent default.

So by creating the securities, you can (a) get short; (b) you can customize the attachment points of the default points.

COMMISSIONER WALLISON: So what you were doing, then, one way to look at what you were doing, is you were satisfying a demand for this without creating new weak mortgages.

WITNESS COHN: We didn't create any mortgages.

COMMISSIONER WALLISON: Right. But my point is that real mortgage-backed securities were created from real mortgages. You imitated them, but it was not necessary then to create more subprime mortgages in order to give people the same exposure.

WITNESS COHN: I would use the word "mirror." We mirrored them. We exactly took the pool that existed and we mirrored it in a synthetic form.

WITNESS BRODERICK: And I think, Commissioner, it is an interesting question as to whether, if synthetic CDO or equivalent products had not existed whether the demand pool would have been such to in fact increase the supply of subprime mortgages.

COMMISSIONER WALLISON: Well that fundamentally is my question. May I have another couple of minutes?

CHAIRMAN ANGELIDES: Yes.

COMMISSIONER WALLISON: So I just want to be sure that we are focusing on this, because, although a lot has been made about the fact that these synthetics were created, nevertheless these synthetics were between consenting adults. That is to say, they were being sold to people who were sophisticated enough to understand what they were buying.

These were not sold to the public. And, that it amounted to an opportunity to reduce the actual--not that you were assuming that this was an opportunity to do it, but they amounted to an opportunity to create the same kind of risk without actually making subprime or other weak mortgages.

WITNESS COHN: Correct.

COMMISSIONER WALLISON: All right, let me go back then to the final question that I had before, and that is: You were very candid, Mr. Cohn, in saying that you did not foresee the collapse of the housing market, or the housing bubble.

And you now are in company with just about everyone who has testified before this Commission. Nobody seemed to see the collapse of the market. So how can we judge AIG as against Goldman Sachs?

AIG didn't foresee the collapse of the market, either, but we are treating them as having made some huge mistakes. Whereas Goldman Sachs came out of it pretty well.

What is the difference between Goldman Sachs and AIG?

WITNESS COHN: It's a good question, and I'll try and do the question justice.

I think the big difference goes back to what Craig was talking about. We at Goldman Sachs are in the active risk management business. We are not in the investing business.

AIG had shareholder--I'm sorry, had premium, policyholder premium to invest. And they were trying to create a rate of return by buying assets, buying securities, and making investments to create an adequate rate of return so they would have money to redeem their policies or pay off claims.

We at Goldman Sachs are not in that business. We are in the active market making business, and we come in every day of our lives and we try and manage our risk, and we try and tailor our risk, and understand it more clearly than we have the day before.

COMMISSIONER WALLISON: I just want to ask one final question. You're right of course, but you and AIG were doing the same thing in effect. They had a different purpose than you had, but what was the fundamental difference between you not being able to see what was in the future and they not being able to see what was in the future?

WITNESS COHN: As a best guess, we were making our portfolio to market every day, every minute, and taking realistic samplings of the environment.

COMMISSIONER WALLISON: Okay. Thank you, Mr. Chairman.

CHAIRMAN ANGELIDES: Thank you. Senator Graham.

COMMISSIONER GRAHAM: I'm going to reserve a couple of minutes at the end to go back to the consenting adults' discussion, but I would like to--

CHAIRMAN ANGELIDES: Senator, why don't you pull your microphone towards you.

COMMISSIONER GRAHAM: --but I would like to focus primarily on the Goldman Sachs-AIG relationship. You were selling credit default swaps at the same time that AIG was. Were your swaps essentially the same character as theirs? For instance, did you have in your swaps this provision that if there was a diminution in market value that collateral would be provided?

WITNESS BRODERICK: The arrangements that we had for the swaps that we essentially intermediated with AIG were largely--

COMMISSIONER GRAHAM: No, I'm not talking just With AIG--you were selling credit default swaps to lots of people, right?

WITNESS BRODERICK: Most of the counterparties that we did business with, we had bilateral collateral arrangements with, yes.

COMMISSIONER GRAHAM: Were your contracts similar to those that AIG had, using as one example this issue of--

WITNESS COHN: We wouldn't know what AIG's contracts were.

COMMISSIONER GRAHAM: What?

WITNESS COHN: We wouldn't know what AIG's contracts were.

CHAIRMAN ANGELIDES: He's asking about your contracts with your counterparties.

COMMISSIONER GRAHAM: I'm telling you as a matter of fact that AIG had a provision in its contracts that said that--which you well know because you dealt with it--that they could be required to put up collateral if there was a diminution in the underlying assets' value. Which I gather was a somewhat unusual provision, I don't know.

Did you have that provision in your contract with your customers?

WITNESS BRODERICK: If the provision you're talking about is the standard mark-to-market, which I believe is the case, then that was the standard across most of our counterparties. It was not unusual at all.

COMMISSIONER GRAHAM: So you were selling basically a fungible CD to what AIG was selling. Is that right?

WITNESS BRODERICK: Yes.

COMMISSIONER GRAHAM: Mr. Cohn, you have a quizzical look on your face.

WITNESS COHN: I'm not sure that it's fung--I'm not sure what AIG was selling, so I'm not sure it was fungible. And I don't want to mislead you.

COMMISSIONER GRAHAM: Okay. I'm trying to get to the point. There's been a statement made that you were selling your CDSs at a considerably higher price than AIG was selling its similar if not totally fungible product. Do you know if that's correct?

WITNESS COHN: I would doubt that we would ever have the luxury of selling something higher than someone else in the market. It's not the way it typically works.

WITNESS BRODERICK: There is lots of room for confusion in those sorts of statements because CDS may look fungible but in fact they may be referencing different seniority underliers. And a single CDS referencing a pool of mortgages where one has an attachment point way up on the risk spectrum, and one has way down the risk spectrum may look, at cursory glance relatively similar, but in fact in risk terms they are fundamentally different. One is very low, and one is very high.

COMMISSIONER GRAHAM: Could you put four and five up?

CHAIRMAN ANGELIDES: Could I ask a two-second question on my time, quickly? Were you receiving, was there a differential payment between what you were paying AIG for protection and what the arrangement was with our counterparties? Was there a significant economic difference?

WITNESS BRODERICK: In terms of premium?

CHAIRMAN ANGELIDES: Yes.

WITNESS COHN: At the time we were buying protection from AIG, they were the cheapest provider. If someone else had been willing to sell it cheaper, we would have bought it from them.

WITNESS BRODERICK: But, Mr. Chairman, the point is--

COMMISSIONER GRAHAM: Were they--do you know what the difference--you said they were the cheapest provider. Do you know what--

WITNESS BRODERICK: This was not a high margin business.

CHAIRMAN ANGELIDES: So your sales to others were higher, but not--in the range of how many basis points, perhaps?

WITNESS BRODERICK: I don't know.

CHAIRMAN ANGELIDES: All right, perhaps we can follow up. I'm sorry, Senator.

COMMISSIONER GRAHAM: Yes. Maybe you can help explain that chart there. Because it looks as if, for instance, that AIG was willing for $2.1 million a year to sell you coverage on $1.76 billion worth of underlying assets. Whereas, the other groups were selling at a significantly higher ratio of premium to risk--I mean dramatically higher.

WITNESS BRODERICK: Yes.

COMMISSIONER GRAHAM: Am I interpreting that chart correctly? And if so--

WITNESS COHN: I don't know quite how to interpret that chart, but your question I completely understand. So in the AIG block of the $1.76 billion, they were selling protection on the super super senior tranche, the least likely and last to default.

Other people were selling, or buying protection on different tranches with a much higher probability of defaulting.

COMMISSIONER GRAHAM: So you're saying that this chart is apples to oranges because maybe whatever TCW was selling, where you had to pay $384,000 a year to get $22.5 million coverage may have been a significantly different product than the one that AIG was insuring?

WITNESS COHN: The AIG was AAA super senior. The TCW transaction was an unrated security that we traded a swap on. It had no rating on it whatsoever.

CHAIRMAN ANGELIDES: Senator, on my time again, can I just quickly ask a question?

COMMISSIONER GRAHAM: Yes.

CHAIRMAN ANGELIDES: I think the one thing I'd like to ask about this chart, here's the real question. You know AIG's not hedged. But in a sense you are paying $2.1 million a year. I mean, it's the leverage bet. I mean, would you agree that these synthetic CDOs allowed for enormously leveraged bets? To wit, you're putting up $2.1 million a year; you stand to gain $1.76 billion. Hugely leveraged. Would you agree?

WITNESS COHN: Correct.

CHAIRMAN ANGELIDES: To both positions.

WITNESS COHN: To the event you can cling, just like automobile insurance, just like home insurance, you don't pay the whole price of your home in insurance.

CHAIRMAN ANGELIDES: Right. But they're each highly leveraged, correct? I mean, these are all highly leveraged, particularly in a synthetic CDO?

WITNESS COHN: They're levered based on the probability of default, of you--in essence, they're leveraged on the probability your house is going to burn down.

COMMISSIONER HENNESSEY: Could I ask a question?

CHAIRMAN ANGELIDES: And I interrupted the Senator, but I'm going to make up for it some day. Commissioner?

COMMISSIONER HENNESSEY: Insurance by itself I don't think the term "levered" is appropriate. I mean, I pay an insurance premium on my car, which is a fraction of the value of the car, right? If I'm also insuring nine other cars that I don't own, I think of that as leverage.

CHAIRMAN ANGELIDES: These were--you were buying protection on securities you didn't own.

WITNESS COHN: Yes.

CHAIRMAN ANGELIDES: Senator, I'm sorry.

COMMISSIONER GRAHAM: But my--in most states you are required to have insurance in order to get a license tag for your car, at least that is true in Florida. I think that is true most places.

You can buy insurance for the same stated coverage with wildly different cost depending on who the company is. If you want to buy from super cheap insurance company, you can do it, but you understand that maybe when you actually need the insurance they may not be there.

Was AIG in the marketplace? Was it the super cheap insurance to credit default swaps?

WITNESS COHN: Dependent on product, dependent on day, dependent on market, we would check away.

COMMISSIONER GRAHAM: No, I'm talking about keeping apples to apples in terms of the product. Just like the best automobile insurance company has the same contract as the worst. The difference is, if you buy it from Allstate you're pretty sure if you have an accident you're going to collect. If you buy it from a discount, you don't know whether they're going to be there when you need them.

Was AIG considered to be a cut-rate CD?

WITNESS COHN: I don't think you can say that. I think AIG was on the market, and certain days there would be other people that would have sold the protection at a cheaper price, and certain days that AIG would have offered the protection at a cheaper price.

I would be wrong to say consistently 100 percent of the time they were the cheap low-cost provider.

COMMISSIONER GRAHAM: Well I am now going to use my remaining minute and fifteen seconds to go to the consenting adult thing.

If the consenting adults are two people who are about to get in an automobile and one of them is drunk and the other one agrees to ride in the passenger seat with the drunk driver, that's two consenting adults agreeing to ride together under the circumstances.

The problem is, the only people--they are not the only two people who are going to be affected by the drunk driver. It could be that it will be a third party that gets run over by the drunk driver.

So the fact that within this arrangement there are two consenting adults is not the end of the story. The question is what happens to the rest of society? And that's what worries me about these, what I call peripheral derivatives. That is, they may be very good for a person who wants to be able to engage in the most leveraged of transactions, but when that activity that is gratifying to that consenting adult ends up affecting the rest of the population by contributing to a financial meltdown of the scale that we are now experiencing, then I think you have to look at it from a different perspective.

Now I asked the first panel, and I will ask you, what is the social value of these extreme derivatives? And if there's not a social value, then why aren't they just treated as gambling, and not given the patina of respectability that they have as a security?

WITNESS COHN: I would love to answer that. Multiple factors of social value.

Number one, pricing transparency.

Number two, we brought new capital into the market.

Number three, we were able to build more diversified portfolios.

Number four, it provided ability to short.

Number five, it provided different ways of risk transference through the system which allowed the underlying mortgage market to grow.

COMMISSIONER GRAHAM: How many of those could you accomplish if you were doing this on a Nevada Gaming Commission regulated market?

WITNESS COHN: I don't think any of them.

CHAIRMAN ANGELIDES: All right.

WITNESS COHN: I'm not a gaming expert.

CHAIRMAN ANGELIDES: By the way, we turn into pumpkins in this room at 6:00.

COMMISSIONER GRAHAM: This consenting adult is surrendering his last 29 seconds.

CHAIRMAN ANGELIDES: Thank you very much. Douglas Holtz-Eakin.

COMMISSIONER HOLTZ-EAKIN: Thank you, Mr. Chairman. And thank you to both of you for your time today and your patience.

I just wanted to clean up some details. I found your answers to Commissioner Born's questions about the management information systems, and not keeping separate books for derivatives, it was utterly convincing but it did raise the following question:

If you don't track those separately, how do you pay your derivatives desk?

WITNESS COHN: We don't have a specific derivatives desk. Everything is commingled. We manage risk per underlier.

So I don't have to make that decision how to pay a derivatives desk, because in certain situations you have to look at the whole thing.

COMMISSIONER HOLTZ-EAKIN: Second question. It's been said, and I think you even said this, Mr. Broderick, that the CDOs, the credit default swaps, contributed to difficulties in transparency which may have exacerbated the financial crisis. But at the same time, in the presence of exactly those same instruments--however complicated they may be--you were able to assess very well your counterparty risk versus AIG. And indeed at the right points took conscious steps to mitigate those exposures.

That seems to be a little bit of a contradiction. Can you help me out with that? Why couldn't everyone do that?

WITNESS BRODERICK: I think we have a risk culture which is focused on effective risk management, and it includes the components that I noted earlier, starting with effective mark to market. And when I say, or I would agree that from time to time transparency is less than one might like, it means that marking to market is harder than one might like.

And that means that you need the right people, and you need the right processes and procedures, and so forth. But to be an effective participant in this market, you've got to devote those resources. And I think we have, and other successful participants in the market have as well.

COMMISSIONER HOLTZ-EAKIN: Just to I understand, that difficulty in marking to market is independent of freeze ups, lack of transactions, things like that. It's just the difficulty in seeing through these instruments and marking them to market?

WITNESS BRODERICK: No. It's particularly true during times of market stress. It was particularly true in middle to late '07 for instance when the market was--when the underlying subprime market was highly volatile in terms of payment performance, and so forth, and the underlying asset prices were therefore fluctuating quite a bit, and all the associated derivative products, whether it was the RMBS, or whether it was the CDOs, or whether it was the synthetic CDOs were moving accordingly.

It was, you know, it was more challenging than usual to track the--to track what the actionable price across these portfolio of products was.

COMMISSIONER HOLTZ-EAKIN: Leading question: If everyone had had Goldman Sachs' risk management regime, would we have had a financial crisis?

WITNESS BRODERICK: You can answer that.

WITNESS COHN: Pure guess. I think we still might have. Because at the end of the day, it's not a science; it's an art form. So we've got hundreds of years of man-years and women-years dedicated to understanding those reports. Just having the reports doesn't make you a great risk manager.

And having the organization that we have with a operations, compliance, controllers function separate, then the trading and the controllers and compliance ultimately having ultimate authority, and having a senior management team like Craig and myself and David Viniar who will be here, and others, living risk management every day of our lives, the systems clearly would have helped them, but again you've got to interpret the system.

COMMISSIONER HOLTZ-EAKIN: Okay. Thank you. I mean, that's actually very helpful. It does lead to my next question, which is: Andrew Sorkin reports in his book that Goldman Sachs had for a long time a plan on the shelf to become a bank holding company. Is that true?

WITNESS COHN: Correct.

COMMISSIONER HOLTZ-EAKIN: And why would you have such a plan in place?

WITNESS COHN: We--we are in the risk management business, and we manage all of our risks. We try and have alternative outcomes available to us. And that was something that we had been contemplating for a long period of time, and based on what was going on in the market, and based on where we felt the regulatory environment was going, we decided to execute.

COMMISSIONER HOLTZ-EAKIN: So before you executed, when you decided to have such a plan on the shelf, what risk were you managing?

WITNESS COHN: Just managing the overall positioning of Goldman Sachs in the world, becoming a bigger firm, becoming a more global firm, dealing with different clients.

Some of our clients wanted to trade with banks. We had certain clients that had different capital or margin requirements if they traded with a bank versus a nonbank. And so there were certain business that we had to forego by not being a bank.

And you're always going through an analysis of should you become a bank to pick up that additional business? What are the pros? What are the cons? And we always felt like we needed to have an actionable plan on the shelf.

COMMISSIONER HOLTZ-EAKIN: How much did access to Fed Discount Window lending in times of liquidity crises figure into having that on the shelf?

WITNESS COHN: Not at all. We don't really have assets in our bank that were eligible for the Fed Window.

COMMISSIONER HOLTZ-EAKIN: Okay. And then I have just a couple of minutes left and we have to get out of the room, but I want to take this opportunity to just ask you your views on something that we hear very different things about.

This morning Professor Kyle from the University of Maryland said very clearly that prior to Bear there was an expectation by large financial institutions that they could shift losses to Taxpayers, that too-big-to-fail was a real thing, that the moral hazard was inaction, and that it affected the behavior of firms such as yours.

Others have asserted that, no, that wasn't true until the Federal Government's actions toward Bear Stearns, and then certainly in the aftermath of Lehman there became this cemented notion.

What is your view of the Goldman Sachs expectations regarding government intervention prior to Bear, post-Bear, and how do you think the rest of the market perceived this?

WITNESS COHN: Prior to Bear I had never once, for one millisecond, thought that there was any backstop in our organization, or business, or in the financial services industry.

I felt every moment I was at Goldman Sachs that we needed to run our business independently, and if we made mistakes and did things wrong we would have to suffer the consequences, including all of the unforeseen things that could potentially happen if things really got bad.

COMMISSIONER HOLTZ-EAKIN: And after Bear Stearns?

WITNESS COHN: After Bear Stearns, there was confusion, to be honest with you. There was confusion to what happened. How it happened. Why did it happen? Was this the new game plan? Was this not the new game plan? How was the world going to react? Which made the Lehman Brothers weekend even more confusing for people.

Not only did it make it confusing for financial institutions, it made it confusing for world investors.

COMMISSIONER HOLTZ-EAKIN: All right, Mr. Chairman, I yield back.

CHAIRMAN ANGELIDES: Thank you.

Mr. Vice Chair?

VICE CHAIRMAN THOMAS: I have a duty to try to make sure that we have an accurate record. And as I recall, Mr. Cohn, you were talking about AIG in terms of their investment concerns, that they had to get a return on investment that dealt with the premiums.

And the discussion that we had was with the subsidiary of AIG, which was the Financial Products. And my understanding is they were completely walled off from any of the insurance activities in AIG. Would that change the statement that you made about their motivation?

WITNESS COHN: Yes. That would change my motivation.

VICE CHAIRMAN THOMAS: I figured it would, if I'm accurate.

WITNESS COHN: Yes.

VICE CHAIRMAN THOMAS: So we have it on the record and we work with it whichever way it goes. Thank you.

CHAIRMAN ANGELIDES: Ms. Born asked if she could ask a quick clarification before we adjourn out of this room.

COMMISSIONER BORN: Mr. Cohn, you said that you thought the systemic harm could have come from AIG if the government hadn't stepped in to backstop it because of its concentration in certain instruments, and you didn't designate the instruments. Did you mean credit default swaps?

WITNESS COHN: That was one of them. But they were a huge player in other markets as well. They were a big repo counterparty. They were a big secured lender. They were involved in many different asset classes.

They had an enormous amount of paper out being owned by the money market funds. So money market funds were--I could go through. There were a lot of different chambers, or silos where they would have had an effect that would have been systemic.

COMMISSIONER BORN: They were just such a big player in so many markets.

WITNESS COHN: Yes.

COMMISSIONER BORN: They were too big to fail.

WITNESS COHN: In essence, yes.

COMMISSIONER BORN: Thanks.

CHAIRMAN ANGELIDES: All right. Thank you very much. Just the one thing is, there are some follow up pieces of information, which we have discussed. Like a dog with a bone, on this management information system, we want to press that.

I know you had all these contracts. I've got to believe you actually track revenues from contracts, but we'll pursue that.

I want to thank you for coming. I want to thank the public who listened in today. And I want to thank

Senator Dodd and the Senate Banking Committee for once again allowing us to meet in this hearing room.

I want to thank all the Commissioners and the staff for their hard work, and we will adjourn for now and reconvene at 9:00 a.m., in this room, tomorrow morning. Thank you all very much.

(Whereupon, at 6:01 p.m., Wednesday, June 30, 2010, the Commission meeting was recessed, to reconvene at 9:00 a.m., Thursday, July 1, 2010.)