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FCIC Official Transcript Hearing on "The Shadow Banking System

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FINANCIAL CRISIS INQUIRY COMMISSION

Official Transcript

Hearing on "The Shadow Banking System"

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COMMISSIONERS

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Session I; Perspective of the Shadow Banking System

HENRY M. PAULSON, JR., Former Secretary

U.S. Department of the Treasury

Session II: Perspective on the Shadow Banking System

TIMOTHY F. GEITHNER, Secretary,

U.S. Department of the Treasury

Former President, Federal Reserve Bank

of New York

Session 3: Institutions Participating in the Shadow Banking System:

MICHAEL A. NEAL, Vice Chairman, G.E. and

Chairman and CEO, G.E. Capital

MARK S. BARBER, Vice President and

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P R O C E E D I N G S

CHAIRMAN ANGELIDES: Good morning. Welcome to the second day of hearings by the Financial Crisis Inquiry Commission.

As the members know and as the public know who have been watching us, we have been exploring the shadow banking system in this country and its effect on the financial and economic crisis which has gripped this nation. We have been focusing on the growth, development of this system and the risks posed by it.

As we've said before, while there's significant interest, obviously, in what was done to rescue various financial institutions in the midst of the financial crisis, the charge of this Commission is to examine the causes of the crisis and to explore how risks to the system developed in the first place, what could have been done, what should have been done to prevent those risks from coming into being.

We have a full day of hearing again today.

We are joined first of all this morning by former Secretary of the Treasury, Henry Paulson. And really, with no further ado, we will begin this hearing.

Unless, Mr. Chairman, you'd like to make an opening remark also.

VICE CHAIRMAN THOMAS: No. I would just like to say that yesterday was useful. Today has a real opportunity to be useful.

I cannot recall in my four decades in which we have two witnesses, both of whom were former secretaries of the Treasury, one who had a background on Wall Street in one of the major firms and the other secretary having a position in the Federal Reserve in New York, so that we get a full understanding based upon our ability to ask questions of both sides of the street from two different perspectives over a period of time which is obviously, as we now know in retrospect, very significant in the history of the United States. And so I look forward to the testimony.

Thank you, Mr. Chairman.

CHAIRMAN ANGELIDES: Thank you, Mr. Vice Chairman.

And as the Vice Chairman indicated, we will start today hearing from former Secretary Paulson. We will then hear from Secretary of the Treasury Mr. Geithner. And then we will have a panel later in the afternoon with participants in the shadow banking system from GE Capital to PIMCO to State Street Bank.

With no further ado, Mr. Paulson, thank you for being here this morning. I'd like to ask you to stand for what is a customary oath of office that we administer to everyone who appears before us.

If you would please raise your hand as I administer the oath.

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. Paulson. I do.

(Witness sworn.)

CHAIRMAN ANGELIDES: Thank you very much.

Mr. Paulson, we have received your written testimony, and we appreciate it very much. And we would like to ask you now to--we'd like to give you the opportunity, and we'd like to obviously hear an oral presentation by you. We've asked in consideration of the time that you keep that presentation to no more than ten minutes.

I know you're familiar with testifying up here on the Hill so you probably know there's a light on that box that goes to yellow with one minute, to red when time is up. And if you'd make sure your mike is on, you may commence.

WITNESS PAULSON: Chairman Angelides, Vice Chairman Thomas, and members of the Commission, thank you for the opportunity to testify today.

I served as Secretary of the Treasury during the recent financial crisis. I am proud of the work we in government did to save our nation's financial system from collapse and chaos and our economy from disaster. Even so, the crisis caused human suffering that simply cannot be measured.

The American people deserve, and policy makers will benefit from, an understanding of the broad and diverse causes of the crisis. The job of providing that explanation falls to this Commission, and it is an awesome responsibility.

Many mistakes were made by all market participants, including financial institutions, investors, regulators and the rating agencies, as well as by policy makers. Most of these are well understood. And importantly, policy makers are currently addressing some major regulatory structure and authority issues that allow the pre-2007 regulatory structure and authority issues that either--excuse me.

Policy makers are currently addressing these regulatory structures that either allowed the pre-2007 excesses in our system or made it difficult to address the crisis. Nevertheless, a number of the root causes are not being addressed and remain sources of danger to our country.

I fully support your important mission and I hope that my testimony today can assist it.

The roots of the financial crisis trace back to several factors, including housing policy, global capital flows, over-leveraged financial institutions, poor consumer protection, and an archaic and outmoded financial regulatory system, among many other causes. Underlying the crisis was a housing bubble. And it is clear that several policy decisions shaped the home mortgage market.

Excesses in that market eventually led to a significant decline in home prices and a surge of loan defaults, which caused tremendous losses in the financial system, triggered a contraction of credit, and put many Americans quite literally out on the street. These excesses were driven in large part by housing policy.

From 1994 to 2006 home ownership soared from an already spectacular 64 percent of U.S. households to a staggering 69 percent, due to the combined weight of a number of government policies and programs. Fannie Mae and Freddie Mac, the government sponsored enterprises, comprised a central part of the U.S. housing policy. The GSEs operated under an inherently flawed model of private profit backed by public support, which encouraged risky revenue seeking and ultimately led to significant taxpayer losses.

The United States has always encouraged home ownership, and rightfully so. Home ownership builds wealth, stabilizes neighborhoods, creates jobs, and promotes economic growth. But it must be pursued responsibly. The right person must be matched to the right house and consequently the right home loan. And in the years before the crisis we lost that discipline.

The over-stimulation of the housing market caused by government policy was exacerbated by other problems of that market. Subprime mortgages went from accounting for five percent of total mortgages in 1994 to twenty percent by 2006.

Consumer protection, including state regulation of mortgage origination, was spotty, inconsistent, and in some cases non-existent. Speculation on rising home prices led to increasingly risky loans, including far too many home loans made with no money down.

Securitization separated originators from the risk of the products they originated. Mortgage fraud increased and predatory lenders and unscrupulous brokers pushed increasingly complex mortgages to unsuspecting borrowers.

The result was a housing bubble that eventually burst in a far more spectacular fashion than most previous bubbles.

Global forces also played a significant role in causing the crisis. Imbalances in the world's economies led to massive and destabilizing cross-border capital flows.

While other nations save, Americans spend.

Consumption in this country is the norm, spurred on by low interest rates, aided by capital flowing from countries--notably China and Japan, which have high savings and low shares of domestic consumption--and further encouraged by U.S. tax laws that discourage saving.

We are living beyond our means on borrowed money and borrowed time. Consumers, businesses and financial institutions all over-extended and over-leveraged themselves with inevitably disastrous results while our federal and state governments continued to borrow heavily, jeopardizing their long term fiscal flexibility.

Our financial institutions, including commercial and investment banks, were notable examples of this over-leveraging. In general these institutions did not maintain sufficient high quality capital, which left them unable to absorb the significant losses they incurred as the housing bubble burst. Many of them did not understand their liquidity positions fully. They held insufficient cash and cash equivalents, and instead relied overly on short-term funding sources that ran dry as the credit markets contracted.

These leverage problems were further exacerbated by a lack of transparency, which caused problems in subprime to affect other classes of assets. Like a tainted food scare, a relatively small batch of deadly products secured by subprime mortgages led to fear and panic in the markets for many mortgage securitizations, driving down the price of assets which triggered huge losses and severe liquidity problems.

Derivative contracts, including excessively complex financial products, exacerbated the problems. These instruments embedded leverage in the institutions' balance sheets, along with risk which was so obscured that at times they were not fully understood by investors, creditors, rating agency regulators, or the management themselves.

Very importantly, a number of financial institutions had woefully inadequate risk management and liquidity management practices that allowed these problems to grow and intensify, in a number of cases leading to failure of the institution.

Compounding the problems at these financial institutions was a financial regulatory system that was archaic and outmoded. Our regulatory framework was built at a different time for a different system, and it has not kept pace with the rapid changes in the financial industry.

I noted during my time at Treasury the enormous gaps in this authority, duplication of responsibility, and unhealthy jurisdictional competition. No single regulator had responsibility for overseeing the stability of the system.

The result was that regulators were often unable to supervise the firms they oversaw adequately. They did not see the impending systemic problems that progressed towards the crisis. They did not have the tools to contain all the harms that unfolded as institutions began to collapse.

In March of 2008 this led me to recommend a blueprint for a major reform of our financial regulatory system after a year-long comprehensive review.

I will turn now to the specific topics of today's hearing, the shadow banking system, a term that refers to the large capital and credit markets outside the traditional banking system that provide credit for municipal governments, corporations and individuals, for short, intermediate and long-term funding needs.

Before the crisis these markets satisfied at least half of the consumer and business credit needs and are one of the hallmarks of our advanced and highly developed capital markets. They have greatly benefited our nation, spurred growth and prosperity at all levels of our economy.

They have enabled more people to receive higher education, more people to purchase homes, more people to start new businesses, and more people to plan effectively for their children's future. They have increased consumer choice, stimulated job creation, and allowed our system to diversify away from the large concentrated banks found in other capital markets.

But like all activities in the financial sector, these markets were fueled by the global excesses and regulatory flaws I've already discussed. When the crisis hit the stress it placed on these markets exposed many of these flaws. And these flaws in turn extended and exacerbated some of the effects of the crisis. These problems must be addressed. Our financial system cannot move forward without fortifying the weak parts of its infrastructure.

In my written testimony I have addressed some specific areas of concern and my suggestions for reform. My list is not exhaustive, and there are certainly other problem areas in need of scrutiny. In addressing these problems, however, we must make sure we retain the benefits of the underlying financial innovations.

In our haste to deal with the flaws in the non-bank financial system we should not move ourselves back to a system of consolidated monolithic commercial banks. I am confident that a thoughtful process can achieve this.

Thank you. And I'd be pleased to answer any questions.

CHAIRMAN ANGELIDES: Thank you very much, Mr. Secretary.

We will now commence the questioning by members. And we will start with me, and then the Vice Chair, and then the balance of the members.

And I might say just one thing I noted yesterday. And that is Commissioner Born and Commissioner Holtz-Eakin have served as lead Commissioners for this series of hearings and have done an excellent job, and I wanted to note that.

Mr. Secretary, I have a number of questions for you. What I would like to--and they really focus on the run-up to the crisis.

There has been, as I said in my opening remarks, a lot of fascination with the bail-out, how the financial system was stabilized. But for me, and I suspect some other Commissioners, the real question is how do we come to point where the only options were either allow the financial system to collapse or to commit trillions of dollars of taxpayers dollars.

What I'd like to do to start, though, this morning is ask you just a couple of questions with respect to your role at Goldman before you became Treasury Secretary, and then move on to your role as Treasury Secretary.

During the time you were the CEO of Goldman from January 1st, 2004 through June 1st, 2006, Goldman issued 19 synthetic subprime CDOs, totaling about $8.4 billion.

Let me first ask you, because this goes to the shadow banking system, it goes to the system as a whole, what's your sense, if any, of the--what's your sense of the value, if any, of synthetic CDOs in our financial system? Do they provide any real capital or benefit to the system, or are they merely a device for betting in terms of results on the system? Are they bets or are they actually devices that provide capital and liquidity of benefit to the real economy?

WITNESS PAULSON: Mr. Chairman, a number of times I have said that I believe that we had excessive complexity in financial products, and that as I think about it, it's very hard to regulate against innovation.

I think one--one of the things that I've recommended for a number of years now is that when we look at some of these complex derivative products, some of these products that regulators make sure that we have real substantial capital charges against these products.

Now in terms of the deals you're talking about, I don't remember the particulars of those particular products.

CHAIRMAN ANGELIDES: Do you think that they provide--just the core issue: Do you believe they provide real benefit to the financial system and to the economy, the real economy as a whole, or are they just outside bets that

--

WITNESS PAULSON: Well, I would say this: To get at market-making--because I think there's been a lot of discussion about market making--and one of the things I saw--and again I haven't been in the business for four years--but one of the things I saw was that clients increasingly were asking Goldman Sachs and other banks to provide capital and to help them manage risk. And there are just many examples of that.

And, you know that business I think is a very legitimate business, a very beneficial business. And it needs to be done with very high standards, great integrity, and in a way in which you're working for your clients' interests.

And I was, you know, thinking this morning about this hearing and thinking of all of the situations where a client, you know, a major sovereign nation was worried about the prices of oil rising and would come to an investment bank and look for a way of protecting themselves against that risk. Or an airline that was worried about, you know, the prices--the oil prices going up. The sovereign nation would be more concerned about oil prices going down.

So there are many situations where customers want their investment banks to help them manage risk. And I think that's a very legitimate function.

CHAIRMAN ANGELIDES: Do you think it's legitimate if there's no underlying interest, like you mentioned the underlying interest: obviously airline company with oil fuel, other entities that may have, you know, a commodity against which they may hedge because they utilize it.

WITNESS PAULSON: Well, I would say this: I think of all of the times when I was in the business where we employed hedges. I actually think best practice in terms of prudent risk management is firms hedging securities that they have on their balance sheet.

CHAIRMAN ANGELIDES: All right.

WITNESS PAULSON: I think of underwritings of securities where the investment bankers or bankers needed to take a short position which was part of the offering process to make sure that there is a stable market.

You know, there are--you know, in the housing there's no reason why that someone who wants to put in a hedge in terms of protecting themselves against housing prices going one way or another shouldn't be able to do so. To me that's a very important function of a market-maker.

So I think what we want to do is we want to separate the function and the market making function, which needs to be done with the very highest standards, the very highest not only in terms of compliance with the laws but doing it in a way which it inspires and keeps client trust, and separate that from, you know, from activity that is not done properly.

And investment banks or banks can make mistakes, commit fraud in a whole variety of areas. But let's focus on the legitimate role that market making plays in the capital market.

CHAIRMAN ANGELIDES: All right. Let me ask you a very quick question because I want to get to the meat of this in terms of your role as Treasury Secretary, the run-up to the crisis.

But let me ask you one quick question since you raised the standards of conduct. And I want to ask not so much in the role as a market maker. But obviously--and I'm not going to refer to a specific case that's been lodged by the SEC against Goldman.

But do you think it's appropriate when an entity is underwriting a security that it would contemporaneously bet against that security on issuance? Is that appropriate? Improper?

WITNESS PAULSON: Well, I would just simply say that any transaction that is done in a marketplace has got to be done with the highest standards, fair dealing, and making appropriate disclosures.

Now in terms of--when you say betting against or shorting, as I said, I can think of, you know, when I was in the business we managed--we sold securities in the public market. You sold securities as part of an underwriting process. The syndicate or the underwriter had a short position. Okay? Is that betting against the security? That was a legitimate function and it's done to make sure there's a stable market.

Frankly, every one of these market making transactions where--or many of them--the client or the customer expects the banker to take the other side of the trade to help them manage risk, commit capital.

CHAIRMAN ANGELIDES: And so complete disclosure in your mind --

WITNESS PAULSON: Well --

CHAIRMAN ANGELIDES: Complete disclosure is what you think is elemental.

WITNESS PAULSON: I said appropriate disclosure is what I think.

CHAIRMAN ANGELIDES: All right. All right. Well, I don't want to put words in your mouth.

Okay. Let's move on. I wanted to just ask about this. Let me talk about Treasury Secretary. Obviously you know, but the Treasury Department, according to the website, is responsible for--quote:

"...ensuring the financial security of the United States."

You were head of the President's Working Group on Financial Markets and in that regard did bring forward the blueprint plan.

But one of the things I'm trying to get to is what didn't we know. And looking forward to the risk of future crises, we can have organizational structures, but the real question is are we going to be able to pick up on the warning signs.

You note in your book that there was the August 17th meeting, I think, a couple of months after you get appointed where you indicated in that meeting, August 17th at Camp David, that--quote:

"My number one concern was the likelihood of a financial crisis. I was convinced we were due for another disruption."

So here's what I want to ask you.

By the end of 2006 the leverage ratios at, you know, Bear Stearns have hit 32 to 1, Goldman 31 to 1, Morgan Stanley, 36 to 1, Lehman Brothers 34 to 1--not counting for balance sheet management.

In the spring of '07, which is obviously a little later than that date when you were at Camp David, the ratio of level three assets, the liquid assets, assets that are hard to price because there's no discernable market price, at Bear Stearns are 269 percent of tangible common equity, at Lehman 243, at Goldman 200, at Morgan Stanley 266. The investment banks--and just as a set; they're not necessarily unique--have been growing like weeds: At Goldman 26 percent a year compounded annual growth rate, Morgan Stanley about 15 percent, Merrill Lynch 18 percent.

And as you point out in your testimony, there are warning signs that abound. States all over the country were trying to fight, in early 2000 before you become Treasury Secretary, deceptive and unfair lending. They were preempted by the OCC. In 2004 the FBI warns about an epidemic of mortgage fraud.

I held this up yesterday. The Economist has an article cover called Housing Prices After the Fall, which is in 2005. The lead of the story says the day of reckoning is closer at hand; it's not going to be pretty. How the current housing boom ends could decide the course of the entire world economy over the next few years. Housing prices are moving up in 2003 at eleven percent; 2004 fifteen percent, 2005, fifteen percent.

You note in your testimony that subprime lending has exploded to be 20 percent of the market.

And by 2006 mortgage debt between 2000 and 2006 has doubled in this country. We have borrowed more in those six years in mortgage debt than the whole 225 years in this country's history.

There's knowledge of the opaque natures of derivatives. There's knowledge of a lot of the instruments in the market.

So here's my fundamental question: What didn't you and other policy makers know when you came into office--I guess my question is: What was the missing information that would have allowed both policy makers and corporate leaders to begin to mitigate risk?

WITNESS PAULSON: Well, Mr. Chairman, I think with all due respect I began immediately to work to mitigate risk--that within the confines of the fact that Treasury Secretary has no direct responsibility for regulating entities or markets.

But as you noted, I saw immediately the huge gaping holes in the regulatory system. And so I took several actions immediately.

Number one, regular quarterly meetings of the President's Working Group so regulators could immediately begin sharing information; figuring out how to work together to fill in the gaps.

Now there was work done there right away on looking at the margin requirements that--and the amount of credit extended between the, for instance, the regulated entities and hedge funds. I can come back to that more later.

Secondly, I immediately started working with Congress to complete regulatory reform legislation for Fannie and Freddie, which had been stalled by politics for years. And then I commenced this review, this regulatory review. And out of this review came the blueprint. It came pressing market participants to strengthen their infrastructure in areas like OTC derivatives, areas like that. And then ultimately we came out with the blueprint. So I think we were on it.

Now in terms of the excesses you talked about, they are there. You couldn't push a button and have them go away. The bad loans have been made. We had --

CHAIRMAN ANGELIDES: Was the toothpaste out of the tube by the time you arrived, in your estimate --

WITNESS PAULSON: I would say --

CHAIRMAN ANGELIDES: --to coin a phrase that was used thirty-some years ago by someone else?

WITNESS PAULSON: I would say most of the toothpaste was out of the tube. And there really wasn't the proper regulatory apparatus to deal with it.

CHAIRMAN ANGELIDES: All right.

But my central question, I understand--I really had two and you really got to the second. But was there--by the time you arrive is the information that you need--and essentially financial industry leaders--it's on the table by

2006. Because, you know, we've heard a lot in these hearings. We've heard a lot about 'We're shocked, we're surprised; it's a tsunami.' But even when a tsunami comes you have warnings ahead of time.

WITNESS PAULSON: Yeah, but what was--Let me tell you what wasn't clear to me. And I don't think it was clear to very many people, if any, when I arrived. And that was the scale and the degree of the problem.

And, for instance, if you, you know, referring to the book, if you're going to refer there, the President said to me, 'What will cause the crisis,' okay? And I said, 'I wish I knew. It will be obvious after the fact; it always is. No one predicted the Russian crisis.'

Now what was--we could see some of the problems in for instance subprime and housing. But no one--at least that I was talking to--predicted this massive decline in housing prices throughout the United States. And when I've asked myself why--why wouldn't people have predicted that; why wouldn't experts have predicted it.

And I think it was because we were all looking through the paradigm that we'd had in this country since World War II where residential housing prices have essentially gone up, mortgages were safe investments. And so the economic models didn't project the kind of wholesale, you know, significant decline in housing prices. And so that was I think the--that was the thing that people didn't predict.

But having said that, you know, if we'd seen that coming I'm not sure what we could have done differently.

CHAIRMAN ANGELIDES: Even though--and this isn't with respect to you--even though by the time all the write downs are happening in places like Citigroup and other institutions at the end of '07, prices have only fallen five percent and they had fallen two percent I think in the early '90s. But I see your point.

But would this be a fair characterization: That people knew a storm was coming. People were concerned that the levies were weak and hadn't been tested, and that--Is it fair to say there wasn't a plan in place to deal with the crisis that was inevitable?

WITNESS PAULSON: Well, there wasn't a plan in place when I arrived. I think we put a plan in place, because I think the only plan that I know how to put in place was to get the regulators together with a very--taking a different approach to the President's Working Group and with regular meetings where we started working immediately on what we thought the issues were going to be and how to respond to them.

And to get working on--you know, I believe to this day that the most effective thing that anyone has done, either from the time I was there or since I've left, to deal with housing has been the actions taken with Fannie and Freddie. I think that's been the most effective to sort of stem that decline in home prices. And we started working on that right away.

CHAIRMAN ANGELIDES: All right. I'm going to stop right now. I actually, when I close up before you leave, I have some very specific questions about Fannie and Freddie, a couple of them. But I want to stop right now to get to other Commissioners.

All right. Thank you, Mr. Secretary.

WITNESS PAULSON: Thank you.

CHAIRMAN ANGELIDES: Mr. Thomas.

VICE CHAIRMAN THOMAS: Thank you.

That presented a whole bunch of questions that I hadn't planned on in terms of that discussion.

But I do want to start also with you, Mr. Secretary, at Goldman, not for any specific recollection of product.

One of the things I'm trying to better understand since I don't have any familiarity with the relationships in these institutions on Wall Street--if you asked me about Congress I could tell you a whole lot about things that people don't normally appreciate result in decisions--especially small group dynamics, interpersonal relationships, the old business of who gets what, when and how on accommodations, which are fundamental to any democracy in terms of quid pro quos and other structures that are simply there that make the system work.

What I don't understand is the relationship between institutions--especially in the so-called shadow banking area--because to me it's remarkable that there existed this healthy and growing structure based upon very short term financing overnight, a number of institutions doing that so you were sharing the grazing in the pasture. And yet, as has been indicated in terms of Goldman with the current CEO and others, that you would take opposite sides in terms of market making, that was within the institution.

I'm trying to understand a relationship between institutions, not so much in an institution, because clearly if you're the largest you can be on both sides and play various roles by virtue of your size. But if you're smaller you may have to be more dependent on others. And so it's this business of to what extent was there a symbiotic relationship with other firms, notwithstanding the fact they're your competitors, or was it pretty much predatory and that's one of the reasons the smaller ones went first.

Because going back to the congressional example, I could be fundamentally opposed to someone on one day on an issue. That issue is dispensed with. And the next day we wind up on the same side. So one of the things you tell folks when they first come is you can be opposed to somebody but if you're locked in opposition to that individual you're going to miss a lot of opportunities to actually advance some of the things that you're interested in.

From your perspective, what was the culture? Predominantly--I mean it had to be to a degree symbiotic, didn't it?

WITNESS PAULSON: Well, let me--I think, Mr. Vice Chairman, what you were getting at when you talked about the infrastructure and you talked about secured lending was the repo market and secured lending. And let me just talk a little bit about that because I think it might help.

That many financial institutions--not just the traditional investment banks--had to rely on wholesale funding for a big part of their funding. It wasn't all deposits. And so you have this secured lending or repo market that grows up--which is a very healthy thing because you shouldn't--you wouldn't want everyone having to rely only on the banks for their wholesale funding. And so repo is secured lending. And the lender is at least partly protected during bankruptcy because their collateral is protected.

I think the way you need to think about this--and there's a market where two parties can deal with each other--there are many sophisticated institutions--some sophisticated, some less sophisticated--that wanted to invest money. You know, some of them are pension funds, money market funds, governments. They want to invest money. And a safer way to do it would be to enter into a secured lending arrangement with a Wall Street firm.

Now they could do that directly or they could do it through a, you know, have a custodian administer it and then handle the collateral so it would be a tri-party repo. But that is the way it was done.

Now what happened--and here is what I think gets to your question. What happened was this grew very, very quickly with no single regulator having a purview of it, no one looking at it and being able to get the information on the whole thing. So it grew like topsy-turvy. There was a--systems didn't keep up with it; the infrastructure didn't keep up with it, with the procedures. And the participants got sloppy in their credit decisions.

So it's one thing if I'm a money market fund and I'm lending to a bank and I'm taking treasuries as collateral. If I'm taking mortgage securities and I'm asking for no margin, no haircut, that's a sloppy kind of provision.

So now what happens is this is growing up. There are excesses. And I would say to the Chairman, this was something that I was not aware of, the extent of the issue. I had seen it through one little lens at Goldman Sachs. And so that this big market had grown up; no regulator looked at it.

So now when the crisis comes and investors are afraid, there were a number of--and so they're concerned about Bear Stearns. They lose confidence. Then this is--when you say it's predatory, these people--if someone is afraid and they're afraid about their own institution surviving, then they pull money out, or they don't roll over their secured lending. Why? Because there's certain cash investors that don't know what to do with collateral if they got it; they're just really looking at the underlying credit.

So again this was a shadow market that is a very valuable market, should continue to be a valuable market. It needs to be fixed. Okay? It just plain needs to be fixed. And so there were mistakes made there by regulators, by a regulatory system. Sloppy practices by practitioners.

And then the biggest sloppy practice of all were the banks and investment banks if they didn't maintain liquidity cushions.

Everybody talks about capital. But to me the biggest lesson I learned out of all of the crisis was the lack of focus by so many market participants and by regulators on the importance of liquidity. And you cannot place huge reliance on any short term overnight market if you don't ask yourself, 'What am I going to do if that market doesn't function as normal; how much of a cushion do I have.'

VICE CHAIRMAN THOMAS: Well, but wouldn't every one of those institutions go to bed that night not only worrying about themselves but others because they depend upon this kind of short-term --

WITNESS PAULSON: Only--See, they didn't worry until they did. It's hard to explain this. But I had --

VICE CHAIRMAN THOMAS: I don't think it's all that hard if you use other examples. For example, obviously Bear Stearns and all the others thought they were liquid until they tried to put up the assets. The only ones they felt comfortable--or other people felt comfortable with were treasuries.

But the idea that an economic model in terms of mortgages, didn't anyone look at how much--what a mortgage was changed between the '50s, the '60s, '70s, '80 and to now that there was significant erosion in any comfort level on how long a mortgage could last given the rules.

Let me give you a quick example. I represented a big area, there's a lot of desert. And folks would run in the spring, when there was enough grass out in the desert, sheep. We began to see a fairly high loss of desert tortoises. So the BLM wanted to run an experiment. They wanted to put Styrofoam tortoises out in the desert when the sheep were running on the grass to see what kind of an interaction there was.

And so I told them that my sheep men would be ready to put their Styrofoam sheep out in the desert when the BLM was ready to put its Styrofoam tortoises because you didn't get a decent understanding of the relationship.

When you rely on--And I want to talk about rating agencies in a minute--someone giving a AAA rating to a package which fundamentally was so much different than earlier packages, and you rely on that AAA rating, at some point doesn't somebody look at the underlying problems?

What happened, frankly, in the desert was the crows, as population encroached on the desert the crows followed and they'd go out and flip them over in the morning and have a warm meal in the evening. And until and unless you controlled the crows, you were never going to solve the problem.

And here the crow flipping it over, everyone argues that we didn't have a model that could tell us what was happening. I just don't understand, given the level at which people were operating, which brings me to the question:

When you became Secretary of the Treasury, looking at it from not your narrow perspective but the broader scope, were you shocked at the amount of weight placed in the portfolios on these risky mortgage packages?

WITNESS PAULSON: I was --

VICE CHAIRMAN THOMAS: Were you surprised?

WITNESS PAULSON: Yeah. I'll tell you what surprised me, which is related to your question that, as you said, there was the rating. But a number of the firms--you know, I in my testimony and a number of people have talked about its importance that those who underwrite securitizations have some skin in the game, hold some of the securities they underwrite. I think that's important.

But where the big problems were, were a number of institutions--two or three institutions that, not only did they have skin in the game they had half their body in the game because they had huge positions of these, out-size positions that were over-weighted. And so --even if they're rated AAA.

And so I think one of the lessons of this, which gets to your point, is that it is very hard for experts, any experts to know anything with certainty. People could have been predicting this crisis for years. And they could have predicted it, hedged themselves, and lost a lot of money.

But it's foolhardy to tie up a lot of any institution's balance sheet on any particular security, no matter how high the rating is, unless it's, you know, a U.S. government security.

VICE CHAIRMAN THOMAS: Well, is that what happened? They tied so much up in the mortgage market? Because what I'm trying to figure out is how could the weight of the securities that were created, supported by the mortgage market pull down the commercial paper market, the repo market, the auction rate securities market? Was it that big?

WITNESS PAULSON: Well, that's a different--I was just --

VICE CHAIRMAN THOMAS: No, I understand. But how was it interconnected?

WITNESS PAULSON: There were several institutions that owned too much of the paper.

But to get to your point, what happened, I think the way to think about this is this--and I think this is quite critical.

The subprime market by itself was a relatively small--relative to the U.S. economy or to the U.S. capital markets. And the problem was much bigger. There were excesses, as we've talked about, in housing and across the markets more broadly.

So one--you used an analogy of the desert. I'll give you an analogy that's used a lot. There is a lot of dry tinder out there. Okay? And the driest tinder was subprime. That's where the fire started. But there were a lot of other excesses. And that is really what happened. And there were a whole lot of things coming together to create this crisis.

VICE CHAIRMAN THOMAS: In terms of the rating agencies, we have legislation now from both the House and the Senate. Are you familiar enough with that legislation to have any opinion as to whether it's useful, directed, effective in dealing with rating agencies?

WITNESS PAULSON: I would say in terms of the rating agency piece of this, I agree with one part of the legislation which I think is controversial to certain people. I think it--no matter how the rating agencies are regulated--and we need more regulation and we need more disclosure and we--around the rating agencies.

I do not like the fact that we have several rating agencies that are enshrined in our securities laws, in regulatory manuals, and so on, and that ratings are referred to. And so I think that's just a crutch and a dangerous crutch. And I think too many investors, too many banks relied overly on a rating.

And I'm all for the rating agencies; I think there should be independent rating agencies. They should give their advice just like equity research houses do. And I think investors should look at those as one tool. But I do not like the fact--and I support the legislation that would take reference to credit ratings out of our securities laws.

VICE CHAIRMAN THOMAS: All right.

The Senate would create an office within the SEC to administer credit rating agencies' rules and practices. Good move?

WITNESS PAULSON: I think it's probably a good move.

VICE CHAIRMAN THOMAS: House creates a seven-member advisory board for credit rating agencies.

WITNESS PAULSON: I haven't really thought about it.

VICE CHAIRMAN THOMAS: But it's safe, isn't it? I mean that's...

WITNESS PAULSON: Yeah, it's...

VICE CHAIRMAN THOMAS: You could get unanimous.

WITNESS PAULSON: It --

VICE CHAIRMAN THOMAS: Both bills would require a measure of certification that due diligence has been done by someone, but neither one talks about who would pay for it and its structure. So again, it's going to evolve outside of some regulatory structure.

WITNESS PAULSON: Yeah. It will--I will say this: No matter how you regulate this--and it needs more oversight and regulation--no matter how you regulate them, it will not be flawless.

It's hard to believe that anyone at a rating agency is always going to be able to see the issues that others don't see.

VICE CHAIRMAN THOMAS: No. I understand that.

WITNESS PAULSON: And so therefore that's why I want to get to something which is much more basic than that. I don't want the rating agencies to be held up as the font of all truth and be--and have the ratings be part of our securities laws.

VICE CHAIRMAN THOMAS: Then my only question left is, just out of curiosity, how come you didn't put more emphasis on the rating agencies in your testimony? I mean you mentioned it, but...

WITNESS PAULSON: Because I --

VICE CHAIRMAN THOMAS: Do you think you gave it due weight in terms of --

WITNESS PAULSON: No, I thought that this was in terms of shadow banking. Yeah, I have --

VICE CHAIRMAN THOMAS: But you gave an overview at the beginning of your testimony.

WITNESS PAULSON: Right. Well, I've written about it quite a bit --

VICE CHAIRMAN THOMAS: Right.

WITNESS PAULSON: --in my book. And so I do think the rating agencies made plenty of mistakes. I think they fell into the same paradigm that so much of the rest of the world did. They used economic models that didn't foresee what happened.

VICE CHAIRMAN THOMAS: But everybody has used that as an excuse in terms of not knowing the true value of what they held and tried to trade.

WITNESS PAULSON: Yes. So clearly the rating agencies in terms of--and I made a number of strong recommendations, actually even before Bear Stearns went down, with the President's working group about the kind of disclosures you need to see from the rating agencies and the kinds of processes they need to run, and the regulatory oversight.

What I was just trying to get to was --

VICE CHAIRMAN THOMAS: Right.

WITNESS PAULSON: --something which was more fundamental than that, which is:

I don't want to see a situation ever again where a whole lot of sophisticated people can just turn and say, 'It's not my fault; it was the rating agencies.'

I want investors and big banks and regulators to be forced to use rating as one tool, but do some of their own work and do some thinking for themselves.

VICE CHAIRMAN THOMAS: Thank you, Mr. Secretary.

And could I ask you--would you be willing to respond in writing to any other questions the Commission might have as we go forward? Because, frankly, we're learning as we go.

WITNESS PAULSON: Of course. I just hope you will understand that now my staff consists of one assistant. Okay? So I will--I no longer have these--but I will respond.

VICE CHAIRMAN THOMAS: We'll try to write questions that can be answered by one assistant.

Thank you.

CHAIRMAN ANGELIDES: Thank you.

Ms. Born.

COMMISSIONER BORN: Thank you very much, Chair Angelides.

And I want to express my thanks to you, Mr. Secretary, for being willing to meet with us and help us in our investigation.

The first area that I wanted to ask you about is over the counter derivatives. I fully agree with you that derivatives are extremely important instruments in managing and hedging risk and play an invaluable role in that respect.

Nonetheless the over the counter derivatives market had grown to more than $680 trillion, a notional amount by the time of the crisis in the summer of 2008. And it was virtually exempt from federal regulation and oversight because of a statute past in 2000, the Commodity Futures Modernization Act, which had eliminated jurisdiction of the federal agencies over the market.

I wanted to ask you whether in your view this regulatory gap played any role. You've said in your testimony derivative contracts including excessively complex financial products exacerbated the problem during the financial crisis. And I wondered if you would elaborate on that testimony.

WITNESS PAULSON: Well, first of all, I think your point is well taken. And in the chapter that the Chairman referred to in my book, when we had that first conversation with the President about the potential of a credit crisis--and the topic I talked about then was over the counter derivatives and how quickly this had grown, citing the same numbers you cited and just talked about them being outside of the regulatory purview. And we didn't even have at the time the right protocols for how they would function in a crisis, and, you know, the netting agreements and there were big back logs of really unbooked trades.

So there was a lot of work being done by the Fed at that time. And I was very supportive in terms of pushing the industry.

Now I think that these, first of all, these products, they didn't create the crisis but they magnified it and they exacerbated it. And I think not only in the way in which it's been written about a lot in terms of the interconnectivity, but just in terms of masking the risk. They were so opaque and complex and difficult to understand.

I had certain regulators when I arrived saying that the system wasn't that leveraged because they were looking at just the debt as opposed to what was embedded in those products. Those products are hard to understand. And that is why I so strongly believe that you want to press--standardization is in all of our interest.

And so the way you I think get toward simplicity--complexity just in general I think is our enemy. You can't--it's hard to regulate against complexity and innovation.

So I think the way you do this is you press everything is standardized onto an exchange. And the over the counter you put through a central clearinghouse where you've got great oversight. And then you have, if it's complex there, you put big capital charges so you penalize complexity, which will help move toward greater standardization.

And I think that's really the right way to deal with it. And I think you're right on in terms of seeing that as a concern. But it's not--those people that would say it was the fundamental cause I think are wrong. It's not. It's just something that needs to be fixed. And I'm hopeful that it looks like some of the, you know, legislation is on the way to fix it.

COMMISSIONER BORN: With respect to the remaining over the counter market, assuming regulations are applied that would put standardized contracts onto exchange, would you advocate more transparency for that market?

WITNESS PAULSON: Yes. Yes. That is--In this that would solve so much. And, you know, as you well know, regulators had no idea. Industry participants didn't know.

You know, just taking General Motors as an example, everyone knew how many General Motors bonds were outstanding. No one had any idea how many credit default swap contracts were out there on General Motors bonds.

COMMISSIONER BORN: Or who held them.

WITNESS PAULSON: Or who held them.

COMMISSIONER BORN: Or what the exposure was.

WITNESS PAULSON: Absolutely.

And so to me I think fortunately this is now understood by just about everyone.

COMMISSIONER BORN: Let me ask you about the political influence and power of the financial services sector industry leading up to the crisis.

There are some reports that indicate that the financial sector may have spent as much as five billion dollars in lobbying expenses, federal lobbying expenses and campaign contributions in the decade leading up to the crisis, and that in 2007 there were almost 3000 registered lobbyists in Washington who had been hired by the financial sector.

I wonder whether some of the regulatory gaps and weaknesses we saw may have been in part at least attributed to this effort to influence federal policy.

WITNESS PAULSON: You know, it's interesting. I can't comment as to how it impacted Congress. I do know that it is very, very difficult to get anything that's fundamental, controversial, difficult done at Congress without a crisis. But there are a lot of jurisdictional issues. This is complex stuff.

And what I saw in terms of regulators, I just saw regulators seriously working to try to gather the information. And it was just--if a man from Mars--when I arrived if I'd had to explain to a man from Mars as to how this--and I see you laughing because you know--how this was regulated and why OTS regulated these institutions and OCC these, and why there wasn't any regulator that had access to all of the information in the shadow banking market and so on, I could never have explained it.

And so I have no doubt that lobbying has an impact. But there you would have to talk to some other members of the panel that are closer to the political process than I am.

COMMISSIONER BORN: Well, clearly there were regulatory gaps or weaknesses in terms of the oversight of the shadow banking areas. Don't you agree?

WITNESS PAULSON: Yes.

COMMISSIONER BORN: And did you think that the effort by the SEC to create a consolidated supervised entity program for the investment bank holding companies was a step in the right direction?

WITNESS PAULSON: You know, it's--I'll tell you, at the time when I was on Wall Street I did. And I thought that the people we worked with at the SEC were of the highest quality. And when I was in government and working with them I thought that there were just some very, very strong professionals there, and working very hard and very diligently.

So it was--so I look at it from that perspective, and then I just simply say if I get up to 100,000 feet and look at it I just say, 'We all made mistakes.' You know, when you look at, you know, there were regulatory mistakes over periods of time and clearly from the bankers and the investors and all the different participants.

But I never doubted for a minute the competence and the professionalism of the regulators at the SEC who had just in a very short time--remember, this program for the Consolidated Regulatory Program had just recently evolved and then we had the tsunami.

COMMISSIONER BORN: Do you think that going forward it's important to try to eliminate regulatory gaps --

WITNESS PAULSON: Yes.

COMMISSIONER BORN: --like those for the --

WITNESS PAULSON: Oh, yes.

COMMISSIONER BORN: --shadow banking system?

WITNESS PAULSON: Well, I think--Here's what I think going forward: I think these big complex financial institutions, they need to have sort of a uniformity of approach, and in having tough, consistent regulation without some being able to find nooks and crannies.

And then in terms of the shadow banking there needs to be--that's a big reason why I recommended the systemic risk regulator concept was someone needs the authority and the ability to gather all of the information necessary so you can look at these big systemic issues. And

I do think that if a systemic risk regulator had been in place they would have had more authority to deal with, you know, the over the counter derivatives much earlier or would have had the purview and the authority to deal with the repo market.

COMMISSIONER BORN: Or with institutions like AIG --

WITNESS PAULSON: Oh, absolutely.

COMMISSIONER BORN: --which was not really overseen effectively.

WITNESS PAULSON: Absolutely. At the holding company level. That's right. That was an example of an institution that was able to arbitrage and sort of build itself up by playing the gaps in the system.

COMMISSIONER BORN: Well, one of the questions that I have is--and would be interested in your observations on this--you know, obviously there were problems in supervision, even with bank holding companies in terms of the biggest institutions. And today some of those holding companies are even bigger than they were in 2008 because of consolidations, because businesses have gone --

WITNESS PAULSON: Right.

COMMISSIONER BORN: --out of business, and for other reasons.

Are these institutions really capable of effective supervision by government regulators? Indeed, are they capable of effective internal management? Probably your experience at Goldman Sachs could inform that issue.

WITNESS PAULSON: Well, I would say this to you:

That I think that the level of concentration where we have ten big institutions with sixty percent of the financial assets, you know, this is a dangerous risk.

Now I believe these institutions are necessary; they perform a valuable role. So the way I get at your question is this:

I say first of all, I know we can have better regulation. Absolutely know better, more consistent, bigger capital requirements, bigger liquidity requirements. But then I come to the conclusion that regulation will never be perfect. Unless you hypothesize that these institutions wanted to blow themselves up, it's hard to believe that the regulators are always going to be able to find the problems that they can't find themselves.

And so there will be--there will continue to be failures. There have been since the beginning of time. Since the time we've had capital markets institutions have failed. We've had financial crises.

That is why I believe in addition to strengthening the regulatory system you need these resolution authorities so that the government has the authority that when a big institution fails to step in outside of the bankruptcy process and wind it down and wind it down in a way in which you're not saving and propping it up in their current form. The expectation has got to be that they're liquidated. And I know that's complicated. But you can train regulators to do that.

And that's why I'm such a big proponent of this will concept, you know, that these big institutions work with the regulators to create a roadmap for their liquidation if they do fail because I--so again, you'll never get perfect regulation. But I just don't think the American people are ever going to again want to see the taxpayer come in and bail out or save these institutions.

So when they fail we need a way of liquidating them and liquidating them in a way in which they don't hurt the American people and take the system down. And that to me--so you're right, we can never--regulation, we should strive to make it as good and as effective as we can and to give the regulators the tools they need and the information they need so they'll be right more often. But then there will be failures and we have to figure out how to deal with them so it doesn't hurt everyone else.

COMMISSIONER BORN: May I have --

CHAIRMAN ANGELIDES: Yes.

COMMISSIONER BORN: --another two minutes?

I just wanted to follow up with you on a specific example. For example, Goldman Sachs. You are very familiar with that Goldman Sachs is like, what running it involved.

Do you think from your experience as the head of a big institution like Goldman Sachs that it is capable of an orderly wind-down in case it gets into financial problems?

WITNESS PAULSON: Yeah. I think that any institution can be wound down--It's complicated--over a period of time. You can't--No institution, no matter what their capital says, if you have to liquidate it right away there's no institution I think that the assets will be worth more than the liabilities.

And again, my view is that with any institution there has got to be a way that if they fail that you know, and the expectation is, that they're not going to be propped up in their current form; that they'll be broken up, they'll be changed in some way, they'll be liquidated in a way. And so I believe that can be done.

COMMISSIONER BORN: Thank you.

CHAIRMAN ANGELIDES: Mr. Holtz-Eakin.

COMMISSIONER HOLTZ-EAKIN: Thank you, Mr. Chairman.

Mr. Secretary, thank you for joining us today. I appreciate your testimony.

I want to go back to this observation in your book that a crisis was inevitable and ask you: Does that mean if there had not been a housing market crisis to trigger it, something else would have?

WITNESS PAULSON: Well, when I said 'inevitable,' what I said in the book was that our history in this country has been--and certainly in modern times--is every six, eight, ten years there's been some crisis. We could go starting with the S&L crisis. And I could just take you through the various, you know, the '94, '98 with long term capital, what we had with Russia and Asia. So we've had these. And so what I saw was excesses building in the system.

Now I could have said the same thing in 2004 or '05, and, you know, I would have been wrong in terms of the timing. But ultimately you were going to have these.

And what I saw--and I didn't realize how true it was--was I said to people the difficulty or the interesting thing about the next crisis is we're going to be seeing how these complex instruments and some of these private pools of capital, and markets away from the traditional financial institutions perform for the first time under stress because there had been a lot of change. And so we saw how a lot of this performed under stress.

So, yeah, I think it's inevitable. And I think as sure as we're sitting here today that the next crisis is inevitable. I don't think it's going to happen right away, but there will be stresses and problems in the capital markets, you know, some time in the future, probably in our lifetimes again. And so the key thing is how to have those be relatively small manageable events.

They'll never be small events to those right in the middle of the markets dealing with them, but so that they're small manageable events to the rest of us in the broader economy.

COMMISSIONER HOLTZ-EAKIN: But the signature of this particular crisis that we sadly have to report on is the housing market?

WITNESS PAULSON: Yeah.

COMMISSIONER HOLTZ-EAKIN: You would agree with that?

WITNESS PAULSON: Yes.

COMMISSIONER HOLTZ-EAKIN: In your testimony you said that there were several policy decisions that shaped the home mortgage market. What would be the list of policy decisions?

WITNESS PAULSON: Well, I think what you would need to look at, you just need to look at the weight of the whole series of decisions we made, you know, the various programs for housing. It's not just Fannie and Freddie but it's the FHA, their various HUD programs, state programs.

I'd say even just take something like the mortgage interest rate deduction. You know, a million dollar mortgage, it's deductible. Is that fair relative to renters or--forgetting about fairness, I think you have the sum total of so many things pushed housing way up.

I would travel around the world when I was in the capital markets and other nations would look at us in awe that we had home ownership above 60 percent. You know, we weren't satisfied with that; we got it up to 69 percent. So I just think you need to look at those policies as fundamental root causes of the crisis.

COMMISSIONER HOLTZ-EAKIN: And on that list would be the GSEs, Fannie Mae and Freddie Mac?

WITNESS PAULSON: Yeah. Right. Yeah.

COMMISSIONER HOLTZ-EAKIN: In your book you also said that shortly after you arrived as Secretary of Treasury you received a briefing about the GSEs and the quote is that they were a disaster waiting to happen. And when our staff interviewed you, you said that the business model is fundamentally flawed.

And could you just tell us exactly what the flaws were in the GSE business model and why you thought they were a disaster waiting to happen?

WITNESS PAULSON: Yeah. Well, I sure didn't predict this disaster happening the way it did. So I'll tell you that. That was a phrase, you know, that I used without, you know, that turned out to be prophetic. But I didn't see it quite as clearly as it came about.

But in terms of the structure that, first of all, there were the ambiguities. Okay. There was the implicit government support, the Congressional charter. And then private capital and private profit. And the shareholders and the compensation model. So there was a contradiction there.

Then secondly, this was a situation where Congress presumed to be the regulator. They defined capital, you know, legislatively defined capital. Not only the level of capital but what could count as capital. And some things that I considered DS capital, you know, intangibles and so on were defined as capital. And so the regulator was set up to be weak. I'm not saying anything negative about the people that held that job, but they were not given the authorities that a normal regulator is given, a safety and soundness regulator to make judgments about capital.

You had a--and then the elephant had clearly gotten too big for the tent. Right? These things just grew and grew and grew. And so you had--when you looked at all of the--it's just hard for people when we throw around these numbers to even comprehend. But you have $5.4 trillion when you look at the securities they had insured, the debt they had issued.

So the danger, you know, if one of these--when you look at the capital markets, you know, the danger they posed was sort of unimaginable. You know, we could talk about the failure of any one institution. But the danger posed by a lack of confidence in the ability of these entities to repay their debt was much greater than that. So these were big.

And then I think the part in the book you alluded to really had to do with their portfolios. This was a big topic of debate because they would not only guarantee--or insure mortgage pools, they then would take their low funding and buy in these mortgages and hold them. And they said that this was necessary for their mission to support their market. But as people explained to me, two-thirds of their earnings were coming from that. And their boards had a fiduciary duty to their shareholders.

We could talk about the public mission, they could talk about, you know, they could testify up on the Hill about meeting their housing goals. But they had public shareholders and that's where their duty was, was to grow their profits.

So as I look at that I never so much blamed the people that ran those organizations as those that designed the plane we asked them to fly before they flew it into the side of the mountain, you know. So it was not--it was the wrong structure.

COMMISSIONER HOLTZ-EAKIN: So one of the things we heard yesterday was that during the early part of March as Bear-Stearns came under duress agency securities were no longer accepted as collateral in the overnight repo market. And indeed if you look back on spreads at Fannie and Freddie during that period they're spiking up and showing clear signs of market distrust.

So I want you to walk me through the thinking then during that period when Fannie and Freddie were actually permitted to drop the limits on their portfolios and lose a capital surcharge at a time when the market is saying, even with the capital surcharge and limits on the portfolios they aren't very safe.

WITNESS PAULSON: Yeah. It was exactly the opposite of what you said. I had had my staff work with them to get them to raise capital, to increase their capital. And so as a result of what we did Fannie went out and raised seven billion dollars of capital. So there was a net increase in capital. Freddie committed to increase capital; it turns out they didn't. They didn't meet their commitment.

But to step back--but that's sort of the specific question you asked. But to get back more broadly, what had happened was this:

They had--the credit crisis came in mid-2007. And then most of the damage had been done by that point because, you know, after that time mortgage lending virtually ground to a stop away from Fannie and Freddie. And there was all kinds of evidence of really very responsible borrowers that wanted to buy homes and had the economic wherewithal that were having trouble getting mortgage funding.

And so now Fannie and Freddie are essentially the only game in town. And they needed--and so the, you know, I believe the problem was already baked. I mean they owned the securities in their portfolios. They had guaranteed what they'd guaranteed before the housing bubble had broken--or burst.

And so what we were doing in March of 2008 at the time when we took the action we took with Bear Stearns, we also were trying to increase confidence in these organizations and get them to increase their capital.

So again I was pressing many institutions to raise capital. I was talking to many CEOs of institutions and saying I've never see the CEO of a financial institution lose his job by having too much capital, you know; raise capital when you can raise capital. We pressed them. As I said, Fannie raised--lived up to their commitment; Freddie didn't.

COMMISSIONER HOLTZ-EAKIN: They got it from the Treasury yesterday.

If you run the clock forward, then, knowing what you know about their financial condition, I believe you said something to the effect that the Fannie Mae-Freddie Mac reform legislation gave you a bazooka that you would never have to use. And then shortly thereafter you used it.

WITNESS PAULSON: I never said never. Okay?

COMMISSIONER HOLTZ-EAKIN: No, so --

WITNESS PAULSON: I didn't say never.

What I said was, when I got this authority I said that I was asking for unlimited authority. It sounded bad politically to say 'unlimited' so I said 'unspecified.' I wanted to have the maximum amount of authority. And I said to the extent we have--the more authority we have the more confidence the markets will have, and that's the greatest--and that will increase--reduce the likelihood we'll have to use it.

And what happened was with Fannie and Freddie we weren't the regulator. We didn't have the authority or the people to get in and look at it. Okay? So it wasn't until we actually got in--okay?--and got the authority.

And so I was working very hard to get the emergency legislation from Congress--or get legislation from Congress, reform legislation. And then confidence went in these entities. And as I said, it was sort of an unimaginable risk.

So we went and got this emergency authority. And then once we got it we were able to--we had Morgan Stanley working with Treasury as our advisor. We had the OCC. We had the Fed working with FHA go in and look at these entities. And it was only then we were able to get our arms around sort of the scope and the magnitude of the capital problem.

And then the fact that we had these authorities, for the first time we could address the problem. We could do something about it. We had the authority to put in capital and to put them into conservatorship. So that's sort of the story there.

COMMISSIONER HOLTZ-EAKIN: I want to--I don't have much time, but I also wanted to go back and talk about the Bear Stearns episode itself. I wanted to get your views on whether Bear could have been allowed to fail.

What we heard yesterday --

WITNESS PAULSON: Whether Bear could what?

COMMISSIONER HOLTZ-EAKIN: Be allowed to fail.

WITNESS PAULSON: Yeah.

COMMISSIONER HOLTZ-EAKIN: And we heard yesterday fairly convincing testimony that the purchase of Bear set the expectation that other institutions would get help. And that when Lehman went down and did not get help that was a great shock and surprise to the market.

So I was wondering if you would give us your views, particularly about setting the precedent, having, you know, seen intervention with Fannie and Freddie set expectations, how you thought about doing that with Bear.

VICE CHAIRMAN THOMAS: Mr. Chairman, if we could give the Commission five extra minutes.

WITNESS PAULSON: Okay. I would like to answer that question because in terms of convincing testimony, you will never hear convincing testimony from anybody on this who was close to the markets, in my judgment.

COMMISSIONER HOLTZ-EAKIN: And we're getting you time to answer, so go.

WITNESS PAULSON: Because--Here's what I would say.

First of all, let's look at the timing on this because Bear was rescued in March and we got the emergency legislation on Fannie and Freddie in July, and they were put in conservatorship in September.

I believe that if Bear had not been rescued and it had failed the meltdown that we began to see after Lehman had gone would have started months earlier, and we would have really been in the soup because it would have started--now that I look at it, with hindsight--before Fannie and Freddie were stabilized. Could you just imagine the mess we would have had?

If Bear had gone there were hundreds, maybe thousands of counter parties that all would have grabbed their collateral, would have started trying to sell their collateral, drove down prices, create even bigger losses. There was huge fear about the investment banking model at that time, and--because of the lack of Fed oversight and access to the discount window and so on. So I think you would have seen other investment banks go very quickly.

Now those that make that argument are missing, to me, one fundamental fact: That as the Chairman said--used the expression once, toothpaste out of the tube.

Once the--the crisis had been going on for seven months when Bear went. The system was very, very fragile. You didn't see excessive risk-taking. You didn't see speculation. As a matter of fact, there were a lot of prudent loans that weren't being made. Investors were even afraid to buy student loan securitizations where the government was behind it.

Sovereign wealth funds and other foreign buyers that had come in to Morgan Stanley, CitiGroup, Merrill Lynch, and all lost a lot of money. People were scared. So it wasn't like people said, 'Gee, they bailed out Bear. Now we can go and let Lehman be profligate.'

You know, the losses that Lehman had and that others had were in positions that were already on their balance sheet that were illiquid positions that just had to be marked down as the economy turned down and as the--and as home prices dropped. So again, you know, I think you would have had a hard time finding any buyer for any institution if the government had--again, if Bear had failed.

COMMISSIONER HOLTZ-EAKIN: Thank you.

One last question. You talked about the investment bank model sort of being in trouble. What we heard yesterday from the SEC is that investment banks had voluntarily brought themselves to a Basel II capital standard, had liquidity requirements in excess of those required of commercial bank holding companies, that by the standards of regulation they were fine.

And so my question specifically is: Is there a real difference in the performance of commercial versus other entities during the crisis? We saw failures across the board.

WITNESS PAULSON: Now I may have a bit of a bias given where I came from. But I will tell you this:

Analytically that I think--people throw around the leverage ratios. And if you had adjusted for accounting differences, the fact that investment banks had the discipline of marking securities to market--that I think that they were at least as well capitalized as the commercial banks--I believe that the issues--I think this was a confidence issue.

I think that it started--I think you had a couple of investment banks in Bear and in Lehman Brothers that had big exposure to the housing market--and Bear in particular probably wasn't as diversified as some of the others. And I think it really comes down to liquidity management and liquidity cushions. And I think I saw the same lack of liquidity management. You know, I saw it across the board with banks and investment banks.

But--so my comment didn't get to the relative strength or weakness; it really got to a concern and a lack of confidence. And when the market loses confidence in an entity in the middle of a crisis it's very hard for that company to continue to exist.

COMMISSIONER HOLTZ-EAKIN: Thank you, Mr. Secretary

CHAIRMAN ANGELIDES: Thank you.

I'm going to take a couple of minutes of my time. I just want to follow up on something that Mr. Holtz-Eakin raised.

At our last hearing when we had Fannie Mae in front of us the Vice Chairman and I described a timeline which we've now verified. And I'd like to enter it into the record as well as the underlying documents.

COMMISSIONER HOLTZ-EAKIN: And it gets to what's happening in that late February-early March time frame and culminates around what you might call the Bear weekend.

WITNESS PAULSON: Right.

CHAIRMAN ANGELIDES: And let me see if I can describe this very quickly.

There's obviously concerns about the meltdown of the private side of the mortgage market. You had expressed some pretty darn big concerns about Fannie. You've also said both publicly and in the interview with our staff--what you said to our staff is 'they'--meaning Fannie and Freddie--were the game in town; they were the only game in town.

But it looks like what's happening here is the portfolio caps are going to be lifted. I think that happens February 28th. So that Fannie and Freddie will keep lending now into a market with big headwinds.

And the deal I think that you and your team are trying to broker--and I don't know if that's an accurate characterization, but certainly involved in--involves them continuing to lend in, having their capital surcharge reduced some--in fact instantly, I think, reducing their capital by ten percent on the promise to raise more capital.

Is that a fair assessment?

WITNESS PAULSON: Well, I would say this:

It was a--they made a commitment to raise more capital. And Fannie raised seven billion dollars --

CHAIRMAN ANGELIDES: Fannie did and Freddie didn't. Right.

WITNESS PAULSON: And Freddie didn't live up to the commitment.

And so there was net more capital raised. And there was the deal which the regulator and the GSEs working with my staff brokered was a lifting the capital surcharge to raise capital and it was to--and I just can't say strongly enough--it was to raise capital.

The other thing I will say, when you're saying lending into headwinds, I object. I think just the opposite. I think what you will find is that the markets had declined dramatically in housing prices and they were continuing to decline. So everyone was aware of the issue.

And so the losses they had didn't stem from--I think you're going to find didn't stem from going ahead and doing risky things in here. It had to do with what was going on in the housing market, and what had gone on in all of the loans that they'd guaranteed before that and put on their balance sheet.

CHAIRMAN ANGELIDES: Well, see, and I think we're going to have to look at this. But here's what I wanted to get to the nub of, which is: It's clear there's deep concerns. Lockhart--in fact there's an email March 16th in which Mr. Steele writes to Mr. Mud--quote:

"Lockhart needs to eliminate the negative rhetoric because it looks like the regulator is not really wild about this."

But interesting also, he says, 'I was leaned on very hard by Bill Dudley, who worked for Mr. Geithner, to harden substantially the guarantee. I do not like that and it has not been part of my conversation with anyone else. I view it as a very significant move, way above my pay grade to double the size of the U.S. debt in one fell swoop.' And the day or two before the transaction gets done Lockhart objects by saying, 'This idea strikes me as perverse as I assume it would seem perverse to the markets that a regulator would agree to allow a regulatee to increase its very high mortgage credit risk leverage without any new capital.'

Now I understand that part of this was to raise more capital. But here's my essential question.

You had deep doubts. And I'm just trying to get a sense of how you saw the markets in March. Bear had just been--quote, unquote--well, acquired, but there was a rescue involved because the Fed's involved.

At this point in a sense you're striking a deal that allows them to stay in the market. You have deep concerns about solvency. Is there a view at that point that, look, we're now in the business of a bailout.

Does the bailout start in March or do you genuinely believe things are going to right themselves?

WITNESS PAULSON: Neither one. I didn't believe things were necessarily going to right themselves, and the bailout didn't start in March.

This--I just cannot say it clearer and more definitively. This was about getting them to raise capital. That's what this was about. And guess what--it did. Okay?

Fannie raised seven billion dollars in capital. Freddie committed to raise capital and then later their lawyer said, 'Well, we need to wait until the second quarter numbers are out.' And by the time the second quarter numbers are out we had gone and gotten the emergency legislation.

But this was solely about raising capital. Because what we were dealing with, we were dealing with a situation where the markets were on edge. They were the only game in town. And I was pressing--this was not unique to them. We were pressing financial institutions to raise capital.

And to me it was an unimaginable risk that these things posed. I had no idea that we would need to go at that time to Congress and get these authorities. And I had no idea that we could have got those authorities. Because remember, I had seen Congress, Fannie and Freddie were a political football like you wouldn't believe. I had seen reform stymied for years. And we were working to try to get the kinds of authorities we needed.

And so I had no idea that we were going to need to get the authorities, get the authorities we got, which let us get in with the real experts to get their arms around the problem, and then get the tools we needed to address the problem.

So working with the limited tools we had without being the regulator for Fannie or Freddie we pressed them to raise capital. And I think that was the right thing. I think that was a sign of confidence when they announced it and then when they went and Fannie raised capital.

CHAIRMAN ANGELIDES: All right.

You know, at some point I think--given your one staff person--I'd like to follow up a little on this. But I think there's a bigger objective here, which is also trying to understand as markets are wobbling --

WITNESS PAULSON: Right.

CHAIRMAN ANGELIDES: --this kind of dichotomy I think you faced.

And maybe--and I'm going to really move on to other members. I'll just state it and we'll ask in a written question. Between trying to stabilize the markets versus also acknowledging publicly the state in which they're in. But I'll--let me do this. Let me --

WITNESS PAULSON: Well, obviously we--I would just simply say this:

What you need to recognize--and I'll say this and I'll answer it in writing and answer it the same way--is that Treasury is not the regulator. We didn't have the authority, we didn't have the people, we didn't have the capacity to really get in there. Okay? So what we were doing was pressing them to raise capital.

It was only when the markets lost confidence and we needed to get these authorities that we had the tools to get in there and get our arms around the problem.

CHAIRMAN ANGELIDES: All right. Thank you.

Senator Graham.

COMMISSIONER GRAHAM: Thank you, Mr. Chairman. And thank you, Mr. Secretary.

I would like to ask three questions that relate to lessons learned. As you say, this is not going to be the final financial crisis that this country is going to have.

One of those relates to a continuation of the

Bear Stearns story, and that is when you faced the issue of Lehman Brothers you were, in addition to dealing with Lehman, you were establishing a principle, which was that Bear was not a precedent for all future similar circumstances; that you were not going to rally the Federal Government to the salvation of every institution.

What were the factors that caused you to make the case by case decision that Lehman was not worthy of a federal-assisted transition?

WITNESS PAULSON: Thank you for asking that question because, despite the fact I've written a book and answered this hundreds of times, people tend still not--and despite the fact that we've had Ben Bernanke and Tim Geithner say the same things--people still question us on this a lot because it's hard to understand.

But the fact is that Bear faced a liquidity and a capital problem. And we were very fortunate to have a buyer in J.P. Morgan to come in and solve the capital problem and be able to guarantee Bear's trading books during the pendency of the shareholder vote. And so we were--and we learned there that the government--how limited our authorities were. We couldn't--no one had the authority to guarantee an investment bank's liabilities or to put in capital. And so--and we didn't have resolution authority.

After that I made a number of speeches where I talked about the need for this. Lehman came along. We unfortunately were unable to get any bank to play the role on Lehman that JPMorgan played on Bear. And so we tried very hard to do that and we were left, frankly, powerless. And so we prepared for the, you know, for the bankruptcy.

So this was not something we did intentionally. And it was just a--we just had a flawed regulatory system and powers.

COMMISSIONER GRAHAM: The second area is conditionality of funds to financial institutions through RARP or other bail-out practices. In contract to what seems to be the perception of the U.S. where there were relatively few requirements, in the United Kingdom--for instance, the Royal Bank of Scotland was required to accept certain conditions as to what its lending practices would be, limitations on dividends and compensations.

Why were there not similar conditions attached to the bail-out of U.S. financial institutions?

WITNESS PAULSON: Well, this was a totally different program. We did not want to be dealing with institutions as they serially failed, as they did in the UK.

We diagnosed the problem as being a big capital shortfall in the banking sector. And so we designed a program that would be attractive to healthy banks so that they would want to come in and voluntarily participate.

And we put in preferred, which was passive--we didn't want it to look or be like a nationalization--and designed so that the government would get the money back because it was senior to the common. And so that was the whole purpose of the program.

And, you know, interestingly enough, you know, I was hopeful when we announced it that we'd get a couple thousand banks that would participate, two or three thousand. But right after we announced it we had critics start saying, 'You've got to force them to lend.' They didn't say how much or how you were going to make them lend or what the government would do. 'You've got to control their compensation,' understandably. And then understandably, a number of the banks said, 'Wow, I'm not sure we like this deal.'

And so we had a good number of banks apply for TARP, get accepted, and then pull back. And we had about 700 not quite take the money. And it was a big success because it prevented their collapse and the government's going to get the money back with a profit.

But I think if it hadn't been stigmatized by all those that wanted to put the various controls on it that we would have had two or three thousand banks; they would have had the money for three to five years. And that would have done far more than any stimulus program to get the economy going again.

But you know, again, I think some of those who say the program didn't work because there wasn't enough lending were those people that stigmatized it. So again, we were trying to deal with healthy banks and make it voluntarily come in. So we weren't trying to nationalize banks like the British government had done. And we were tired of dealing with them serially when they failed.

COMMISSIONER GRAHAM: Well, there was a public perception that one of the justifications for this was to stimulate the economy by making credit available.

WITNESS PAULSON: Yes.

COMMISSIONER GRAHAM: And there was disappointment when there were perceptions that that wasn't happening.

WITNESS PAULSON: You're right. You're absolutely right. And, of course, that was our whole reason for--and I didn't make this point and I should have--the whole reason for designing the program was so many banks would take it, would have the capital, and that would lead to lending. That was the whole purpose.

But in a funny way, as soon as we announced it before the first banks ever got the capital people were saying, 'Make them lend; why aren't they lending more.' Of course, now if you're a bank do you really want this deal.

And how is Big Brother going to help you step in and tell you how to make these lending decisions.

And so I think what happened was then some banks were reticent to take the capital.

Now I think it did help. And it did help with lending. But it could have been much more effective.

COMMISSIONER GRAHAM: Is what you're saying that banks didn't want to take the capital which would put them in a position to be a more effective contributants to the economy because they felt that they would be under external pressure to do that very thing?

WITNESS PAULSON: That's right. I think a number of banks did. And so we had almost 700 banks take it. But I think even those banks rushed to pay it back--okay?--because of the extent to which they were stigmatized.

And so I think banks were understandably concerned. So you had this paradox. People wanted them to lend more. But by clamoring for somehow or other there to be strings attached. And I was never quite sure what those--you know how people--you know, how much people wanted the banks to lend; more than they'd lent in the middle of the crisis during the excesses? Or, you know, how much lending was--what was the right level and how was the government going to determine that.

Clearly this was about lending and getting the banks the capital they needed so that they could lend.

COMMISSIONER GRAHAM: Could I have two minutes?

The third question relates to a topic that you have alluded to, and that is the role of Congress. And you've said that Congress had barriers such as its tendency to wait until the crisis had occurred before acting and then some of the jurisdictional restraints on dealing comprehensively with problems.

From your experience in the executive branch trying to influence Congress to be more proactive and to be more comprehensive in its response, do you have any recommendations of what the executive branch could to do facilitate Congress being a more effective partner or what Congress ought to do within its own domain to enhance its contribution?

WITNESS PAULSON: I could say my own experience with Congress was very positive because twice I needed to go to Congress with extraordinary requests and twice they reacted before disaster struck--okay?--the crisis.

And Democrats and Republicans--I don't have any--Like a lot of people, I don't like partisanship. And I--but I saw people on both sides of the aisle come together. I think in terms of how to solve the issue you've got to--you can get some experts up here that are more equipped than I am to deal with that question.

COMMISSIONER GRAHAM: Thank you, Mr. Chairman.

CHAIRMAN ANGELIDES: Thank you, Senator Graham.

Mr. Wallison.

COMMISSIONER WALLISON: Thank you, Mr. Chairman.

Mr. Secretary, it's good of you to be here. I appreciate it very much. We all do.

I'd like to follow up a little bit on some of the questions that my colleague, Douglas Holtz-Eakin, had asked about: the rescue of Bear Stearns, because to me this was one of the most consequential decisions that has ever been made by our government. I think there's a substantial argument that it gave rise to moral hazard that made the Lehman collapse much more significant than it otherwise would have been if it would have occurred at all. And I want to point out, for example, that once Bear Stearns was rescued it certainly encouraged Lehman to keep its price somewhat higher than it might otherwise have been in dealing with potential acquirers because, on the other side, Lehman had a reasonable expectation that it might also be rescued. And I think the chairman of Lehman indicated that in some of the testimony he's given to Congress in the past.

In addition, creditors of Lehman, such as the Reserve Fund that caused so much difficulty, would probably have rid themselves of the commercial paper that they were holding that would immediately have lost value if Lehman had actually been allowed to fail. And so when Lehman did fail they were stuck with this commercial paper. And, of course, as you remember, that particular money market fund, reserve fund actually broke the buck and there was a run on money market funds.

So the consequences of rescuing Lehman in terms of its moral hazard were quite significant. So I would like if I can just to follow up your reasoning a little bit more carefully.

If I may make just a couple of other points.

Yesterday we heard from officers of--and former officers of Bear Stearns--and from Chairman Cox of the SEC. And we learned--I was surprised to learn that Bear Stearns was actually solvent at the time that it was rescued. It had not actually become insolvent, at least according to Chairman Cox and according to those former officers of the company.

And so the first question I'd like to ask you is whether you were aware that Bear was in fact a solvent company. Now I understand there was a liquidity problem. But were you aware you were dealing when you got Bear to be rescued that you were dealing with a solvent company?

WITNESS PAULSON: I think that is almost a ridiculous statement. We were told on Thursday night that

Bear was going to file for bankruptcy Friday morning if we didn't act. So how does a solvent company file for bankruptcy?

You know, it is--When institutions, financial institutions die they die quickly. It's a liquidity crisis. They die because the market loses confidence.

When they die I don't care what someone has got on their books--okay? Assets, if you had to sell them, are not worth, you know, more than liabilities. So make no mistake about it: We were told, 'The jig's up; we're filing for bankruptcy tomorrow morning.'

And you know what? If--And at the time, you know, we almost found out whether your hypothesis was right because if J.P. Morgan hadn't emerged there was nothing that was going to be done here.

But so, okay. That's your first question.

COMMISSIONER WALLISON: Now I would say that companies can file for bankruptcy even when they're solvent if they are illiquid because one of the definitions of bankruptcy is you cannot pay your obligations as they come due. It's not simply being legally insolvent.

WITNESS PAULSON: This is a financial institution.

COMMISSIONER WALLISON: Yes. But let's not get into that point. But the point is--

WITNESS PAULSON: Well, I think that's a huge point.

COMMISSIONER WALLISON: The point is I just want to be sure that we are talking about a possibility that we could rescue firms that are in fact insolvent.

Now the officials of--the officers of Bear Stearns we talked to, and Chairman Cox--although Chairman Cox was not speaking as chairman of the SEC--both said they did not think that Bear Stearns was too big to fail, and that if it had failed it would have caused--they did not believe it would have caused the kind of disruption that we normally consider as necessary to rescue an institution that is too big to fail.

Why did you think that Bear was too big to fail?

WITNESS PAULSON: Okay.

First of all, I don't take moral hazard lightly. If Bear Stearns, if this had happened at a time--this occurred at a time when the credit crisis had been underway for seven months and the system was very fragile, throughout the system.

Secondly, we didn't have the tools, as I said, to wind them down outside of a bankruptcy process.

So what I saw in the marketplace was a market gripped with fear, and that Bear was not the cause. Bear was a symptom of fear and panic in the market and of this broader problem of illiquidity. And so, as I said to you, I believed that if Bear had failed that there were all sort of counter parties which would have grabbed their collateral, sold it. It would have led to bigger losses and bigger write downs, you know.

And, for instance, your comment about the reserve fund holding Lehman paper, yeah, darn right. If Bear had gone down the reserve fund wouldn't have held Lehman paper and neither would any other fund. And, you know--or many of them. And so you would have--it just would have triggered it quicker. You would have had Lehman going I think almost immediately if Bear had gone, and just the whole process would have just started earlier.

COMMISSIONER WALLISON: All right.

Well, if that's true then how could you not have rescued Lehman under those circumstances? Because what you're saying is that--you had implied that you were going to rescue everybody else for the same reason: There was fear in the market.

WITNESS PAULSON: Yeah. We looked at every one of these, you know, on their own circumstances. But we tried hard to come up with a solution for Lehman, very hard.

Again, if there had been a buyer for Lehman like there was for Bear we would have done the same thing.

COMMISSIONER WALLISON: Let me just turn the questioning to one other point, if I can ask you a question on a different subject.

You said that subprime mortgages were a relatively small part of the problem, although they were a triggering element --

WITNESS PAULSON: Right.

Commissioner Wallison. --I think, in your view of this.

Are you aware that there are views that the number of subprime and Alt A mortgages in the market is much larger than the 20 percent you cited? As much as half of all mortgages by 2008, as much as half of all mortgages were subprime and Alt A, and thus were ready to fail when the bubble that we were experiencing began to flatten out.

If you had known that at the time --

Vice Chairman Thomas: Mr. Chairman, yield the Commissioner additional three minutes.

COMMISSIONER WALLISON: Thank you.

If you had known that at the time would your view about what was likely to happen or the importance of subprime mortgages have been different?

WITNESS PAULSON: I'm not sure. First of all, I don't know that.

But I don't--I think the big question--and I think where you and I agree is that housing policy and housing was the big issue here that we dealt with. And as I look at the problem, there were excesses throughout the market but that it was housing policy and montages more generally, okay?

So I'm not as focused on, you know, I think subprime was, you know, was obviously where the most egregious excesses took place. And I have no doubt--You know, people use this e. coli example or mad cow disease. That I think first came from me and Treasury and we use it in the book. And I do think that it's a good example because there was so much uncertainty about that it infected, you know, so many of the others in securitizations in terms of the way investors concern. So it was a big concern.

But I'm not sure that if I had--that that would have made a big difference.

COMMISSIONER WALLISON: Let me tell you why I think it's significant to think about it in these terms. And that is--we've had questions here yesterday, and we might have some further ones today--and that is that both regulated banks, which are heavily regulated, as you know, and investment banks failed in roughly the same circumstances. There were runs in effect on both. Confidence was lost in both.

And so the question really is if there were circumstances that were so severe coming out of some event which seems unprecedented in at least the last 70 years, wasn't it a significant fact that there was no way that our regulatory system could have prevented or did prevent the loss of--not only among investment banks, as we've been talking about, but also among regulated real banks.

WITNESS PAULSON: You know, I take your point. I mean the fact is this was a--this event was--it's hard I think to go back in history and find any event that was more extraordinary in terms of the extent of the crisis, the magnitude of some of the things that were witnessed here. And so I think your thesis is, you know, has got a lot of truth to it in terms of the housing.

COMMISSIONER WALLISON: Thank you.

CHAIRMAN ANGELIDES: Mr. Georgiou.

COMMISSIONER GEORGIOU: Thank you, Mr. Chairman.

And thank you, Secretary Paulson, for joining us here today.

I want to turn to a portion of your testimony with which I agree. And I'd like to highlight it if I could.

On page four of your testimony on securitization you say:

"Because securitization separated mortgage originators and underwriters from holding the risk of the loans they originated it enabled subprime lenders to stop focusing on the creditworthiness of the loans they made and instead focus solely on their ability to sell those loans upstream to underwriters. Underwriters in turn relaxed their underwriting criteria, relying on their ability to sell the securities into a booming market."

You go on to say:

"Reforms are unquestionably required. Better disclosure is necessary. Underwriters and originators should be required to retain some portion of what they sell. Requiring underwriters to keep some "skin in the game" will properly align their incentives with those of investors who end up holding the bulk of the risk."

And then you go on to say:

"These changes will provide the securitization market with powerful incentives to focus on creditworthiness and will lead to more responsible lending practices."

And then yesterday we heard from Chairman Cox. And in this written statement he said words to the effect:

"If honest lending practices had been followed much of this crisis quite simply would not have occurred. The nearly complete collapse of lending standards by banks and other mortgage originators led to the creation of so much worthless or near-worthless mortgage paper that as of September 2008 banks had reported over one-half trillion dollars in losses on U.S. subprime mortgages and related exposure."

One-half trillion dollars, 500 billion dollars, 500,000 million, which was, you know, an extraordinary amount of money in light of the capitalization of a lot of the institutions that had to write down this paper.

And yesterday when James Cayne and Allen Schwartz, the last two CEOs of Bear Stearns testified, I asked them what they thought of the idea of requiring investment bankers to hold--take some of their fees in the actual securities that they create, whether that might enhance the diligence and, you know, align the interests of investors more closely with those of the underwriters.

And of course they both said that sounded like a great idea, but Mr. Cayne said, you know, they're not going to like it, he said about the investment bankers.

And I just want to harken back to your successor at Goldman, whom I asked a similar question of back at our first hearing in January. And he said, 'Well, we could take those securities but then what we would do would hedge them,' and essentially not, you know, not effectively have the exposure to it. And of course I said, 'Well, the whole idea would be for you to be long on it so that in your underwriting obligations when you were representing to investors that these would be sound investments you would actually be side by side with them in the long haul.'

All of which is to lead me to a question which I really think bears more on your experience at Goldman Sachs and on the street generally than at the Treasury of, the Secretary:

How could such a notion be implemented in light of the different responsibilities that investment banks have in at least three of their roles:

One is as an underwriter in which they undertake to have a fiduciary duty to investors and represent that a security is--that they're selling is not just the right to sell it but to actually represent that it will perform as represented;

Two, as a market maker, which is essentially what Mr. Blankfein was suggesting, which is that people ask for positions and they offer their clients the opportunity to invest long or short or hedge their positions in various respects;

And really third, as proprietary traders investing for their own account.

And the reason I say that--and I'd just like your thoughts in this regard--is if people were required to hold those securities, one, how would you enforce them holding them and staying long on them, not hedging them; and is that realistic in light of the differential obligations of these investment banks?

WITNESS PAULSON: That's a very good question. And a lot of people have recommended what I've recommended. And this recommendation is short on--long on policy and short on how you would implement it. And I'll tell you: I think it is difficult to implement for the reasons you suggested.

But I would--And I think your question has got the nub of the way you need to think about it because I think a market making function is not really what we're talking about here, you know. If a bank is in the marketplace and it's got a client that wants to sell or wants a bank to commit capital or help manage risk, that's one situation. So it's really as an underwriter.

And I don't know that I even have a problem--and I probably need to think about this some more--but even as an underwriter putting a hedge on, again the hedge if it's constructed properly you could have a hedge against, for instance, the mortgage market overall. But this particular security you're going to want to perform better, right?

COMMISSIONER GEORGIOU: Correct.

WITNESS PAULSON: Because you have done such good due diligence.

And so I think the only caveat I would say is you want to have some skin in the game--and I made this comment earlier. But you don't want to have too much because actually those firms, some of them that got into the most problem were those that kept an extraordinary amount of the paper they had underwritten, which was rated AAA, and were holding so much on their balance sheet that they almost failed because of it.

COMMISSIONER GEORGIOU: Oh, that's what John Mack said. He said--I asked him whether they ought to eat their own cooking. He said, 'Well, we choked on our own cooking,' is what he said. And he got stuck with those securities on their books.

But that wasn't his intention. His intention was to originate and distribute them. But he wasn't able to sell them all.

WITNESS PAULSON: That's right. That institution and two others choked on their own cooking.

COMMISSIONER GEORGIOU: Right.

WITNESS PAULSON: And so what we're talking about here, I'm not talking about something that's different from prudent risk management. I don't think we ever wants to ask financial institutions to do things that's not going to involve prudent risk management. But there's got to be a way that as you underwrite that there's some piece of what you've underwritten that you continue to have to live with and own.

COMMISSIONER GEORGIOU: Right. Live with really maybe even as long as the security is intended to produce.

WITNESS PAULSON: Right.

COMMISSIONER GEORGIOU: And maybe the bonuses that were paid to the people who did the deal and were responsible for the diligence ought to be paid in part in the securities that they created.

I mean one of the thoughts is--that many people have suggested here is that the fact that underwriters were paid exclusively in cash, you know, the credit rating agencies were paid exclusively in cash. The mortgage brokers were paid exclusively in cash when the issue was sold and didn't have any--didn't retain any risk for the failure to perform as projected was a problem.

I'm sorry, could I have a couple of minutes? Two minutes more, please?

CHAIRMAN ANGELIDES: Absolutely.

COMMISSIONER GEORGIOU: Thank you.

Yes, sir.

WITNESS PAULSON: I would think that formulaic compensation just in general is a problem. Giving--and particularly--and then paying it in cash makes the problem much greater.

COMMISSIONER GEORGIOU: Not paying in cash?

WITNESS PAULSON: I'm saying paying it

in--formulaic compensation is a problem.

COMMISSIONER GEORGIOU: Right.

WITNESS PAULSON: And then paying in cash is another problem because again I strongly believe that when looking at compensation it's very important to align interest and for there to be a long tail on that compensation. So, as you say, that those that underwrite the securities, however it is done, an important part of their compensation should be how well they do their job. But how well they do their job has got to be the quality of their job, not just the short-term profit.

COMMISSIONER GEORGIOU: Right.

And I think that it also has the beneficial impact of aligning their interests with the investors who purchase it.

WITNESS PAULSON: Yeah.

COMMISSIONER GEORGIOU: And avoiding untoward--being on the opposite side.

I wondered if I could ask you in just the last few seconds I have here to reflect a little upon this question and maybe you could respond in writing if you come up with any thoughts from your long-time experience on the street as to how this might work. Because this is an element, I think, that many people are looking for a solution to that could improve diligence and improve the quality of the paper sold, which could avoid the problem going forward in the future.

WITNESS PAULSON: Like so many things, it's easier to discuss this at 100,000 feet than it is to figure out how to implement it.

COMMISSIONER GEORGIOU: Right.

WITNESS PAULSON: I will give it some more thought.

COMMISSIONER GEORGIOU: Thank you so much, Mr. Secretary. And thank you for your service.

CHAIRMAN ANGELIDES: And we're going to keep that one assistant of yours real busy between now and December.

VICE CHAIRMAN THOMAS: Could I have just a minute.

CHAIRMAN ANGELIDES: Absolutely. You can have just a minute; absolutely.

VICE CHAIRMAN THOMAS: I'll give myself a minute out of my own time.

There are some of us on this Commission who are admitted non-economists. And so there's a jargon that's used which we sometimes have to translate.

WITNESS PAULSON: I will join you in that. I'm an admitted non-economist.

VICE CHAIRMAN THOMAS: Yeah. I'm also an admitted non-attorney. So there's a whole lot of things I'm admitted 'non' on.

But in trying to understand both in terms of the shadow banking system and the point that Mr. Wallison makes so clearly about the subprime Alt A mortgages, the flawed mortgage packages, I think most people would understand interconnectedness, i.e., you've got five men climbing a mountain, they're all roped together. One falls, he pulls the other four with him.

But contagion and common shock that are terms that are being used are for me a little more difficult to parse.

When you use the e. coli example, my argument is, coming from the ag background and the other stuff, that if you told me that spinach, packaged spinach--which was an actual case--had e. coli, you could go ahead and eat lettuce. You don't have to worry about getting e. coli because it isn't the spinach. And then common shock would be that everybody had it.

So where do you place the mortgage packages? Did everybody have them and that pulled everyone down and then all the other assets became devaluated?

WITNESS PAULSON: You see, here's what happened. And I'll try to explain this in simple terms.

VICE CHAIRMAN THOMAS: I can usually handle complex terms if they're defined.

WITNESS PAULSON: But this will be--you can handle very complex terms --

VICE CHAIRMAN THOMAS: Okay.

WITNESS PAULSON: --as anybody who's read the tax code knows.

But what had happened was there were these very complicated securities that were hard to understand. People bought them on a rating. And they knew there were problems in subprime.

And so once the problems occurred then there were--anything that even looked like securitization in the mortgage area or complexity caused people to pull back because they said--and it wasn't a matter of pricing. It became illiquid. That's why the e. coli thing, you know, if McDonald's reduced the--if there was a big concern about beef somewhere and McDonald's reduced the price of their hamburgers more people wouldn't buy it if they were scared. People --

VICE CHAIRMAN THOMAS: But what about the plague, for example?

WITNESS PAULSON: Yeah.

VICE CHAIRMAN THOMAS: See, Bear Stearns kept saying, 'We weren't very big in subprime.' Well, they were big in Alt A.

WITNESS PAULSON: But what happens is that was it. So people then said--investors became concerned, even if there was a very low likelihood. And so what happened is when one asset class becomes illiquid--okay?--no one can sell it, then what happens, people all run to sell another asset class. And so they go to sell the mortgages that are salable. And pretty soon those become illiquid because everybody's trying to sell them. And everyone's sitting around the same risk control table trying to sell the same thing, and all the buyers are in the hospital.

VICE CHAIRMAN THOMAS: So it's contagion rather than common shock?

WITNESS PAULSON: It's contagious because illiquid, you try to sell something that becomes illiquid because of fear it can't be sold. So then securities that shouldn't be related, you know, that they're not supposed to be correlated do become correlated because they're what everyone else tries to sell.

VICE CHAIRMAN THOMAS: And Bear Stearns at the end said the only thing they could really deal with were Treasuries.

WITNESS PAULSON: Well, I would just simply say that counter parties in the repo market lost confidence in Bear Stearns. And they were unable to borrow against certain securities.

VICE CHAIRMAN THOMAS: Notwithstanding the fact others had the same?

WITNESS PAULSON: Yeah, there were others--No, others had--this was a loss of confidence. Others were experiencing similar problems, but not nearly to the same extent. This was focused on Bear Stearns.

VICE CHAIRMAN THOMAS: So it was degree.

WITNESS PAULSON: But let me also say to you that lending practices were very sloppy, and borrowing practices. It's one thing if I want to repo a Treasury. Okay? If I'm redoing a mortgage security and you're giving me 100 percent of the value lending on that, not asking for a haircut, that's sloppy.

And so what happened was there was an assumption you could keep borrowing at--quote--full value on these securities when they were dropping in value.

VICE CHAIRMAN THOMAS: Okay. I'll have to ask my colleague, Doug Eakin--an admitted economist--if sloppy is a term of art.

CHAIRMAN ANGELIDES: Mr. Hennessey.

COMMISSIONER HENNESSEY: Thank you, Mr. Chairman.

What I'd like to ask you to do is to focus on three specific firm failures--I guess four if we package Fannie and Freddie together. And we were just talking about why those firms failed. But instead what I'd like to ask is for you to explain your thinking about scenarios that you feared might happen if they were not bailed out or rescued--whatever your favorite term is.

So Bear, Fannie and Freddie, and AIG; because as I understand it, the scenarios, the really bad scenarios that might have happened if those firms had failed were somewhat different, in particular thinking about counter parties.

With bear it sounded like what you were describing was if Bear was the slowest deer and the lions got it that the next slowest deer might fall prey to the lions, whereas there were other scenarios, as I understood it, for what would happen, you know, to the system if Fannie and Freddie failed or what would happen if AIG failed.

So could you compare and contrast?

WITNESS PAULSON: Well --

COMMISSIONER HENNESSEY: What concern --

WITNESS PAULSON: I would say it's one thing--I have to really be very careful here because doing it with what I know today in terms of what I knew then. Okay?

So with Bear Stearns, what I knew then, I wasn't--I knew enough to know that the system was very fragile and that there were so many unknowns in terms of the counter parties that this was a very dangerous risk to take and an imprudent risk to take to have them go down.

What I know today is that what was waiting for us in terms of Fannie and Freddie, which I didn't know then, and what was--you know, and how severe the overall situation was. But there's no doubt that--and Bear was the kind of firm that I believe if it had gone down like a Drexel or whatever during a more normal market, as opposed to one where there was huge stress and fragility. And what I saw beneath the surface, you know, throughout the institutions in Europe and the U.S., it caused me concern.

Now you mentioned Fannie and Freddie. That's just a different order of magnitude. As I said, that just posed sort of an unimaginable risk to me.

It's just the whole--if there had been a loss of confidence that they didn't have the ability to pay back their securities--I mean there was 3.7 trillion held in the U.S., 1.7 trillion outside of the U.S., they just sort of flowed through the financial markets almost like water. They were liquid securities, they were considered to be.

So that would have--if there had been a big disruption there no one in the world would have had any confidence in our ability to deal with this.

COMMISSIONER HENNESSEY: Can I interrupt you for a second?

What you're describing I think are two different things. With Bear it's that if Bear fails, it's not that other people would be holding Bear securities and that would push them under. It's that the same problem that affected Bear might then affect another firm.

WITNESS PAULSON: It would start a chain reaction.

COMMISSIONER HENNESSEY: Right. Whereas with Fannie and Freddie what you're describing is that there were actual firms that held Fannie and Freddie debt on their balance sheet and Fannie and Freddie's collapse would have caused problems on their balance sheet.

WITNESS PAULSON: Yeah. But, Keith, it's more than that.

It's just the whole thought--okay--that something of this magnitude, you know, that was chartered by the United States of America, with our housing bubble that we were going to stand behind that. There would be--well, why would any institution be safe.

And then, you know, when you talk about Lehman, I will say to you that --

COMMISSIONER HENNESSEY: Actually it was about AIG.

WITNESS PAULSON: Oh. AIG. Okay.

Well, AIG is an order of magnitude bigger than obviously Lehman or Bear. It was one that we knew the least about because there was no one regulator that had, you know, a clear line of sight. So we knew the least about it. But we knew that it was huge in terms of the size and the interconnectedness and the credit default swaps with all the counter parties. It's a real example of rating.

You know, I have a--you know, the danger of a AAA rating where--and again liquidity. Many people entered into contracts with them without getting normal margin because they were AAA. They entered into contracts where they would have to post collateral if there was a downgrade, you know, without saying, well, how do we make sure we have the liquidity to deal with a downgrade.

And then, of course, you touch so many individuals because they had these--they guaranteed through their--get contracts and other retirement plans for teachers and health care workers and others. So you get tens of millions of Americans there. You get, you know, the insurance.

So it again was, you know, it's like Lehman squared or whatever.

COMMISSIONER HENNESSEY: Okay.

Yesterday--a different topic. Yesterday consistently from the Bear executives we heard non-specific hypotheses that there was someone who was strategically inciting the panic; that there were actors out there who were actively trying to bring Bear down to make money. You hear this crop up a lot, but you never hear anyone actually name names and say, 'Here's who I think was behaving strategically.'

I'm not going to ask you to name names. But do you think that there were participants out there who were trying to bring down Bear or any of these other firms?

WITNESS PAULSON: I do. First of all, I don't ever mean that this is the fundamental cause. I think that there was--where there's smoke there's fire, number one. And it was about a loss of confidence. I believe short-selling is essential for the price discovery process in the U.S. But I don't use the word 'collusive' because that's got a legal connotation.

But I would say that when you see serial attacks--okay?--not just sort of an industry overall but serial attacks. And it was the easiest trade to short the stock and then bet on the credit default swaps to widen and do that. And to see it go sort of like from, you know, the wolf pack trying to pull down the weak deer.

So I'm not saying there was behavior that was illegal. That was something that I'd want--and I'm sure they were--the SEC to investigate. And I'm sure if they found something that was illegal like collusive or manipulative they would have acted--or they will act.

But I do think that, like so many things, we had rules that were there to serve us well in normal times. But when we had extraordinary times like this we needed to take some extraordinary actions with regard to short-selling. And I still think those that are thinking about circuit breakers or ways of addressing, you know, short-selling during times of crisis or when a stock moves too far, you know, are important things to do.

And I do think--it sure looked to me like some kind of coordinated action.

COMMISSIONER HENNESSEY: Thank you.

CHAIRMAN ANGELIDES: Thank you, Mr. Hennessey.

Ms. Murren.

COMMISSIONER MURREN: Thank you.

And thank you, Mr. Secretary, for spending so much time with us talking about these important issues.

I'd like to talk to you actually about a fundamental assumption that people seem to have. And I would like to challenge it and get your response to it.

People often say that financial innovation is a great thing. It's important. It's necessary and it serves an important purpose. But when I think about innovation I think about cancer research, technology.

And it seems to me that when you look at financial innovation over the last let's say decade, you've got MBS, CDS, CDOs, that all of these really seem to have led to a common lack of understanding about the instruments themselves, both on the selling side of it and on the buying side of it. It could extend all the way down into mortgage products that have become increasingly complex.

And yet they don't seem to protect the people that would use these kinds of innovations to protect themselves against a natural business exposure. They do not seem to have strengthened the U.S. economy and helped the real economy to evolve. But really what it has served to do is to enrich all of the intermediaries throughout this process and to create a lot of unpredictability and a lot of volatility, which leads us to where we are today.

So I guess with that, do you really believe that financial innovation beyond a certain point is a positive thing?

WITNESS PAULSON: No, I don't. But here is a problem. And we really get to the problem we were talking about earlier, is how to deal with this. Because there's no doubt in my mind that a lot of innovation has been good. I mean the fact that we have strong markets, efficient markets away from, you know, the banks, that I think the concept of securitization is a good one, and, used properly, it's great. I think the repo markets are.

But we have had excessive innovation and complexity. And I think particularly--I think excessive complexity is a problem in a lot of places, even with tech companies bringing out new products. And you just learn you can only--you're just bound to have mistakes the more difficult, the more complex something is.

And, of course, with the kinds of complexity we have with these financial products, it is a real problem. And so again the only way I can think to practically deal with it, because I think it is very difficult to write a rule that said you can do this and you can't do that on behalf of the government, so I just think that regulators should be pushing towards standardization.

And I think the right way to deal with it is with capital charges, and big capital charges. If something is--and, you know, transparency. Just pushing toward--fighting toward transparency, disclosure, and penalize complexity with capital charges.

COMMISSIONER MURREN: Thank you.

I'd like to follow up on that issue of transparency, in particular looking at the conversation we were just having about--indirectly about hedge funds and their behaviors within the market. And one of the salient moments for Bear Stearns was when their hedge fund operations declared that they were insolvent, I guess.

When you think about the activities of hedge funds surrounding the crisis there was a fair degree of lack of transparency in that regard. Do you think that these are entities that should be included in what you just described, which is a regime that more adequately discloses not only the positions but also perhaps the motivations of the various players within the markets?

WITNESS PAULSON: Yeah, it's very interesting because we focused on hedge funds early on with the President's Working Group. And one of the first things we did was to audit the relationships between the prime brokers and the big banks, you know, and the hedge funds and make sure that the regulated institutions had plenty of capital and plenty of margin. And as it turns out, this wasn't where the problem occurred.

And I think that work was good because it didn't have a problem. But the problem was right under our nose in the regulated entities. And, you know, we weren't focused on the citizen conduits, you know, we were focused on the hedge funds.

But having said that, I recommended that in the blueprint we put out that hedge funds that were big and complex enough to be systemically important be chartered--Okay?--and have that regulation. And I am all for that. And so I do think that's important.

COMMISSIONER MURREN: Thank you.

One final question. One of the things that's striking to me in talking to everyone that we've talked to so far is there really hasn't been anyone yet who has admitted that they've made mistakes in this whole thing, that they would do differently. I know that you've said that from 10,000, or is it at 100,000 feet that everybody makes mistakes? I'm wondering if you'd like to be the first to tell us what mistakes you might have made in the course of the crisis.

WITNESS PAULSON: Well, I would say there's a good number of mistakes because the--you know, and I think my mistakes were primarily communications mistakes. And I hardly know where to begin there because, you know, let's start with the TARP.

When we sent the outline we sent a three-page outline up to Congress. We should have had a press conference and should have said, 'This is not take-it-or-leave-it; this is not complete; this is a starting point for negotiations.'

I was never able to explain to the American people in a way in which they understood it why these rescues were for them and for their benefit, not for Wall Street--never, ever to make that connection. And the rescues today remain very, very, very unpopular.

I think that the things that are generally pointed out as mistakes that we made are in most cases situations like Lehman Brothers where we didn't have the authorities. Okay? And, you know, again looking at it for 100,000 feet, I think the major decisions we made--and I think with 20/20 hindsight it's easier to say this--working with imperfect tools and authorities were the right ones. Okay? And I look back on those and I think they were the right ones.

But along the way there were plenty of mistakes made by everyone. And, you know, I sure wish I communicated better a lot of the time.

COMMISSIONER MURREN: When you look around at the other people that were involved in this could you give us maybe just the top two or three mistakes that you saw made that might have made a difference in all this?

WITNESS PAULSON: Well, I think understanding of liquidity. I just can't say that over enough. It's so easy to look at capital.

But capital is a number and it is, you know, whether it's eight percent or ten percent--and you've got to look at that in relation to the overall balance sheet. And so when you find a bank taking a prime brokerage account and taking those securities and using them to finance itself overnight, but then making a 30-day or 60-day loan to the prime broker so the prime broker now takes the securities out, you can't finance yourself overnight but you've still got that 30-day loan to them. I wonder how people do those things.

And so I think those--I think liquidity and understanding liquidity. And then other than that I really believe despite--you know, we could just talk about all the mistakes the bankers made, all the mistakes the rating agencies made.

But I think this Committee, if you don't get to the root causes of these we'll be sitting down with another Committee in a number of years and it will be worse because there will be still those mistakes all those different market participants make but we'll still have the root cause, which is we'd better change our housing policy, we'd better restructure and really scale back and shrink the mission of Fannie and Freddie at a minimum; we'd better do some things with our tax policy and do some things to encourage savings in the United States and discourage over-borrowing.

So again that would be my two cents worth.

COMMISSIONER MURREN: Thank you.

CHAIRMAN ANGELIDES: Mr. Secretary, thank you.

Just one technical matter. When I started today--

Oh, I'm sorry, Mr. Wallison. Two minutes?

COMMISSIONER WALLISON: Right.

CHAIRMAN ANGELIDES: All right. And then I have a very quick close and...

COMMISSIONER WALLISON: Yeah. I just wanted to follow up on something I thought was very important that Vice Chairman Thomas talked about, the issue of common shock and liquidity.

It seems to me the significant fact is that because of the big losses on subprime and Alt A loans, as you probably know, the mortgage-backed securities market came to a halt basically in 2007--that is, couldn't buy or sell mortgage-backed securities and CDOs and so forth, but basically mortgage-backed securities. And this meant, it seems to me, that financial institutions couldn't sell a substantial portion of their assets and they became largely illiquid. And in fact they had to write down some of their assets because of the rules for accounting at the time.

So for that reason these institutions looked like they were unstable or perhaps insolvent. They were certainly illiquid and that is very important, as you pointed out. So the regulation of banks and investment banks simply couldn't cope with that. This is the disappearance of a major asset class; it just was no longer there. There was no market for it any more.

And I would like to have your reaction to that as a person who is familiar with markets.

WITNESS PAULSON: Yeah.

There is no doubt there was real liquidity problems, huge liquidity problems. And that makes it hard to value assets. And I know your view on mark-to-market accounting. And I know there are a number of very thoughtful people that blame mark-to-market accounting, fair value accounting. I'm not one of them.

In other words, I believe the problems would have been worse without it. I believe if more financial institutions had mark-to-market accounting the excesses wouldn't have built up to the point that they built up. It would have been more apparent. And I frankly don't know how you run an institution if you don't have the discipline of having to mark these assets and put a real value on them rather than a historical value on them continually.

So again, I'm a proponent--and I think--and I had people during the crisis say, 'I've got an idea. Let's just stop mark-to-market accounting and the problem will go away.' And of course that really would have scared investors. And investors wanted more visibility and transparency.

But again, I understand your view. And I've spent a lot of time talking about this with thoughtful people. And there's no doubt that during the crisis mark-to-market accounting accentuated some of the issues.

COMMISSIONER WALLISON: I shouldn't have

mentioned mark-to-market accounting. I want to just clarify that I was talking simply about the lack of liquidity that came from the fact that people couldn't value their assets any more.

WITNESS PAULSON: Absolutely.

COMMISSIONER WALLISON: There was no market for their assets.

WITNESS PAULSON: There was not a market, or at least a market they wanted to accept.

CHAIRMAN ANGELIDES: Mr. Holtz-Eakin. Very quickly.

COMMISSIONER HOLTZ-EAKIN: Thank you.

I just wanted to dig down in the weeds on two failures and get your opinion on what happened. One is, you know, the overnight repo market failed pretty dramatically. And we've talked about that.

But something that also failed was the sort of traditional role of the commercial banks as a conduit to the investment banks. In particular Bear Stearns went for $30 billion to J.P. Morgan, who knew them, knew their collateral, and was unable in the crisis to have that loan take place. And this is related to remarks made yesterday by the officers of Bear Stearns, who said that, you know, one of the things that went in the past is when things got bad the investment banks could go to the commercial banks who had a lender of last resort and that that mechanism was available to ameliorate difficulties.

What went wrong in this crisis that that didn't happen?

WITNESS PAULSON: Well, I think you need to expect in any crisis if it's severe enough that an institution is going to do what it takes to preserve itself and not overexpose themselves to credit risk. And the--I think that, you know, Tim Geithner, who you'll be talking about later probably can tell you a lot more than I can about the tri-party repo market. But remember how that works:

You've got the custodian banks, and then after--there's a big time during the day when they, for almost for administrative convenience were the ones that had the collateral. But during the crisis of course they were the ones that had all of the--you know, they owned the risk. And that was an uncomfortable spot for them to be in, and it was an uncomfortable spot for any particular institution that was on the other side to be in to be so dependent on one or another institution.

But I don't--I can't comment beyond that, just simply saying that it is very difficult at a time when everyone is worried about markets and--to ask institutions to extend a lot of credit when the confident goes and a run has started.

COMMISSIONER HOLTZ-EAKIN: All right. Thank you.

CHAIRMAN ANGELIDES: Just one technical matter.

Early on I referenced when I began the questioning some documents provided to us by Goldman with respect to CDOs. I'd like to enter two pages from Goldman Sachs, one from the Senate Permanent Subcommittee on Investigations and a page compiled by our own staff from other Goldman documents, just for clarity.

(INSERT.)

Just as a closer at least for me very quickly, Mr. Secretary, because it's been gnawing at me. So when Paul Reverse saw the lantern, one if by land, two of by sea, he jumped on his horse and said, 'The British are coming.' And I referred earlier to this kind of dilemma you may have faced.

Here's my question:

Why is it in 2007 that no one from the public and financial industry leadership saddled up like Paul Reverse and warned about the coming crisis?

WITNESS PAULSON: In 2007 why no one...

I think a lot of people saw excesses. But remember, we'd had the nine markets for some time. And why is it that, you know, almost any bubble becomes obvious after the fact. And they all have certain things in common when you look at them. They all have, you know, they're usually benign markets. There is almost always excessive risk-taking, too much debt, and not a lot of transparency.

But here I think that many people knew there were excesses. And I think there were very few of us--I certainly didn't--that saw something of the magnitude we saw. It's pretty hard to predict a 100 year storm.

CHAIRMAN ANGELIDES: Even as late as late 2007?

WITNESS PAULSON: Well --

CHAIRMAN ANGELIDES: Because late 2007 you were worried --

WITNESS PAULSON: No, no. In late 2007 --

CHAIRMAN ANGELIDES: Were you worried about shaking the markets?

WITNESS PAULSON: Yeah. I would say in late 2007 I think we knew the markets were fragile. But in late 2007 I think that I--and I've said this a number of times before--I think I was as concerned as anyone around me.

And I underestimated in late 2007 and in early 2008, I underestimated--I knew there was a problem. I underestimated the magnitude and the scale of what we were dealing with--It was just so big--really, almost every step of the way.

Now I look back and say if I'd been omniscient I'm not sure what I would have done differently with the powers. But this was--as I think back on it today it's even hard to imagine what we were going through. It keeps me--I don't like to think about it.

CHAIRMAN ANGELIDES: All right.

I know the Vice Chair would like to make a comment. But I'm going to let him close this.

I just want to thank you for coming today. We probably could ask you many more hours of questions. But we're going to take 15 minutes for lunch after the Vice Chair makes his closing remark.

Thank you, Mr. Secretary.

VICE CHAIRMAN THOMAS: Mr. Secretary, I think some of the problem might have been that you were flying at 100,000 feet.

Edwards Air Force Base was in my district for the entire time I was in Congress. And when pilots got into the X15 and flew above 60,000 feet they got astronaut wings. So I'd suggest if you were at about 50,000 then you could have had a little better picture of what was going on.

WITNESS PAULSON: Good point.

VICE CHAIRMAN THOMAS: Thank you very much for coming. We really, really appreciate the ability to cross sections with one person in trying to get a better understanding of what happened, in both government and the private sector.

WITNESS PAULSON: Thank you.

CHAIRMAN ANGELIDES: Thank you.

We will take a 15-minute recess, Commission Members. So we've got to move fast.

(Whereupon, a brief recess was taken.)

CHAIRMAN ANGELIDES: The meeting of the Financial Crisis Inquiry Commission will come back into order.

Welcome, Mr. Secretary. Thank you for joining us today, and we appreciate you joining us midway in two days of hearings about the shadow banking system.

Let us start, as we do with all witnesses, and I'm going to ask if you would stand to be sworn for the oath. If you would please stand and 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?

SECRETARY GEITHNER: I do.

(Witness sworn.)

CHAIRMAN ANGELIDES: Good. I know you've been to the Hill a few times, and you know what those microphones and lights mean, but in this instance we appreciate having received your written testimony and we would like to afford you the opportunity, and we would like the benefit of an oral presentation by you this morning. At one minute the yellow light will go on, and when time is up the red light. We would like to ask you to give us a presentation of up to ten minutes, and then we will move to Commissioner questions.

Thank you, so much.

WITNESS GEITHNER: Thank you, Mr. Chairman. Mr. Vice Chairman, and Members of the Commission:

Thanks for the chance to have me up here today. You are engaged in a very important job of sifting through the wreckage of this crisis so that we can better understand what caused it and how to prevent a recurrence, and I welcome a chance to be a part of that effort.

The Senate took a very important step yesterday in passing, with overwhelming bipartisan support, reforms to prevent future financial bailouts. This is a necessary but not sufficient step to make our financial system more stable.

As the debate now shifts to the design of consumer protection, oversight of derivatives markets, and other issues, the votes ahead are very important.

And within the context of this hearing, I want to emphasize a central tragic lesson of this crisis. We cannot create a more stable financial system by carving out certain types of financial institutions or activities from these reforms.

If we do, we will only make the system less stable. If we do, we will only allow once again firms in the business of providing credit to escape the necessary protections we need for consumers and businesses against predation, abuse, and excessive risk. We have to create a strong set of rules that no institution can escape.

In the aftermath of the Great Depression, the United States put in place broad protections over the financial system that laid the foundation for a more stable banking industry for several decades.

But over time, this financial system outgrew those protections. Over time, the constraints imposed by banking regulation encouraged activity to move away from the banking sector in search of weaker regulation and the promise of higher returns.

And over time, a large parallel banking system took root outside of the regulatory framework established for banks. In this parallel system, a diverse group of financial institutions were allowed to engage in the business of banking, providing financial services to individuals and companies without being regulated as banks.

At its peak, this financial system financed about $8 trillion in assets, becoming almost as large as the traditional banking system. And much of that system used substantial leverage with relatively thin cushions against the possibility of loss.

This parallel financial system, operating with much weaker protections, proved exceptionally vulnerable to a loss of confidence. As the crisis intensified, investors began to pull back and demand more collateral, forcing institutions in this parallel system to sell assets to meet those demands for cash, pushing the price of financial assets down, leading to a vicious cycle of panic.

That run--it was a classic run--on our financial system brought us to the brink of collapse and our economy faced the risk, a credible risk, of entering a second Great Depression.

Now many people called this parallel system a shadow banking system, but it was not hidden away. It operated in broad daylight, financed by institutional investors with no history--a system with no history, or reasonable expectation of government support in a crisis. Instead, in many ways this parallel system was a pure failure of market discipline.

So why did the protections put in place following the Great Depression not protect us against the growth of risk in this parallel system?

First, what helped make the growth in this system possible was we entered a long period of relative economic and financial stability during which borrowers and investors took on more and more risk.

Trillions of dollars of financial decisions were made in the U.S. and around the world on the expectation that house prices would never fall; that future recessions would be short and shallow; that systemic financial crises in developed markets were a thing of the past; and that the world economy would continue to grow unabated.

Those judgments proved tragically optimistic, and ultimately the protections put in place around the traditional banking system did not provide sufficient shock absorbers to withstand a deep recession and a substantial fall in real estate values.

But part of the cause lies in our balkanized, fragmented regulatory system designed in a different era that lagged far behind changes in the financial markets.

The government system of financial oversight was simply not designed to constrain risk taking in this parallel financial system. Prudential regulations were limited to banks. The Federal Reserve had no legal authority to set and enforce capital requirements on major institutions that operated essentially banking businesses outside of bank holding companies.

The Fed also had no legal authority over investment banks, diversified institutions like AIG, or hundreds of nonbank financial finance companies. The SEC as you know had no legal authority to set and enforce capital requirements on a consolidated basis across the full range of activities of investment banks.

And more broadly, and this is critical, no regulator or supervisor had the core mission of looking across the financial system and taking action to prevent the diversion of activity away from the protections regulations were designed to provide.

The result was a system that applied safety and soundness regulation only to banks was unable to protect the safety and stability of the broader financial system.

Now addressing these failures is an essential part of the comprehensive reforms now being considered by Congress. These reforms would require the enforcement of tough constraints on leverage and risk taking across the major institutions that played a critical part in causing this crisis.

Financial institutions will no longer be able to escape these limits. Large and complex global financial institutions will be forced to operate with higher capital and more stable funding, reflecting the greater risk they pose to the economy as a whole.

These reforms will bring derivatives markets out of the dark. They will provide transparency and disclosure and comprehensive oversight over all derivatives markets and all participants in those markets.

And we will bring standardized derivatives into central clearinghouses and trading facilities, reducing the risk that the derivatives markets could again threaten the system.

These reforms will provide more stability in funding markets through reform of money market funds to make them less vulnerable to runs, and to make repo markets more resilient.

These reforms will help improve disclosure and accounting requirements, reducing opportunities for evasion and giving investors better tools for assessing risks.

They will address conflicts in rating agencies and reduce the vulnerability of the system to future mistakes in credit ratings.

And they will provide a carefully designed type of bankruptcy process for large financial institutions so that we can break them up with no risk of loss to the taxpayer and less risk of damage to the economy as a whole.

Now I know when people look back at this crisis, when they look at the excessive risks that were taken by large institutions, there is a natural inclination to want to move those risky activities elsewhere. To create stability, some argue, we should simply separate banks from risk.

But, in important ways, driving risk-taking into areas with less regulation—that’s exactly what caused this crisis.

The fundamental lesson of the parallel financial system is that we cannot make the economy safe by taking functions that are central to the business of banking, functions that are necessary to help raise capital for businesses, help businesses hedge risks, and move them outside of the banks, outside the reach of strong regulation.

Mr. Chairman, let me just close by thanking the Commission for your important work in drawing public attention to what I think was one of the key factors in this crisis, and one of the most important objectives of financial reform.

Thank you, very much.

CHAIRMAN ANGELIDES: Thank you, Secretary Geithner. We will now begin the questioning.

Let me start with just a few questions. And as I said to Former Secretary Paulson today, at least in my instance, while there's been a lot of fascination generally with the bailout and how the financial system was stabilized, I think the questions I want to focus on today is how do we come to the point where it seemed like the only two options were either to allow a collapse of the financial system, or to commit very, very substantial, trillions of dollars of taxpayer money, to save it.

And I do want to talk to you in your role as President of the Federal Reserve Board of New York, recognizing that you had direct supervisorial responsibilities over bank holding companies, but beyond that in many respects you were the eyes and ears of the Federal Reserve on Wall Street.

You were in constant contact with primary dealers. You had a board that did have linkages to the financial community. And that you had played a special role in monitoring systemic risk, and in fact had undertaken some efforts with respect to cleaning up the backlog in trade confirmations in the OTC derivatives market.

So one of the things I noted in preparing over the last month for our look at the shadow banking system is that in the period of 2004, 2005, 2006 you actually made a number of speeches about risks that were extant on derivatives, and contagion, shadow banking--I will note you made two different speeches on the same day, May 19th, it must have been a busy day, talking about risk, about concentration of risk posed by CDOs and credit derivatives; and about leverage in the system.

And it seems to me you were in a place where you had an extraordinary access to information, not just market data, but what primary dealers were telling you, info on the repo markets. So this is a pretty fundamental question that I have, particularly as we look forward trying to assess the impact.

What didn't you know? And this doesn't need to be just ad hominem, but what did you and other key policy makers not know and not have before you to understand the magnitude of what might hit us?

WITNESS GEITHNER: Well, Mr. Chairman--

CHAIRMAN ANGELIDES: Microphone on.

WITNESS GEITHNER: Sure. Let me just start by saying I had spent the previous 15 years in public service dealing with a series of incredibly damaging emerging market financial crises, and the financial crisis in Japan.

So when I went to the New York Fed, I had been blessed or scarred by the experience of watching countries manage and mismanage the development of risk in systems, and how to clean up and contain the damage in the aftermath. And when I went to the New York Fed, early in that process beginning in 2004 we began a series of very important initiatives to try to contain, dial back, reduce the growing risk we saw in the system and improve the odds that if conditions changed, if we faced a shock, a recession, that the system was going to be stronger, in a stronger position to withstand that shock.

Let me just briefly mention the three most important things we did in that context.

The first was to bring a series of experts in markets and risk management, led by Jerry Corrigan, together to do a comprehensive examination of the state of risk management practice in managing exactly the kind of things that have been the subject of this crisis: risk in derivatives, exposure to hedge funds, complex financial products, how liquidity is managed, how stress testing is conducted.

And using a model of a process very much like what you are doing, which is a sort of a post-mortem process after the failure of long-term capital management, we brought that group together at my initiative and asked them to do a comprehensive evaluation and to provide recommendations.

Then we took those recommendations and we asked the major firms in the world to undertake an assessment of how they were doing against those recommendations.

Second, a very important thing we did is to bring financial supervisors of all the major global firms--the SEC, the British FSA, their counterparts in France and Germany and Switzerland in particular, together to conduct a series of what we called horizontal reviews to try to assess limitations and risk management and try to encourage people to fix those problems in risk management early.

And those were targeted on very much like the thing I began with, risks in derivatives, in lending to hedge funds, in management of liquidity, in conducting stress testing. And those efforts were designed to assess what was best practice, where there were gaps, and try to bring all the supervisors together around the world to encourage, beginning at that point in the period of '05-'06-'07, to try to get firms to dial back the risks they were taking.

And the, finally, just to mention the one thing you mentioned, we began a similar effort to start to clean up the derivatives markets for more standardization, automation. Those were fundamental changes that have paved the way now to what we hope to achieve in these reforms to bring this stuff out of the dark onto clearing houses so we can manage the risk better.

Now as you know, those efforts were, in the end, fundamentally inadequate. They did not do enough soon enough. They did not come with enough force and traction. There are a lot of complicated reasons for that that I would be happy to discuss, in part because we were operating within a set of existing capital requirements that did not adequately capture the risk that the system had to the possibility of a deep recession.

So I think the simplest way to answer your question about what did we not know, what we did not know was the degree to which the system was reliant on ratings, ratings that did not capture what falling house prices would do to losses across the system.

We did not know the extent to which this parallel financial system had built up leverage and exposure to liquidity risk in a level that would, when it came crashing down, would threaten the stability of the rest of the system.

We did not know how vulnerable money markets were to runs, how unstable that basic funding structure was. And I could go on.

CHAIRMAN ANGELIDES: So overrun by events, inadequate political infrastructure to make the changes necessary, under calibrating the size of the wave?

WITNESS GEITHNER: Absolutely. I think that the--you know, since we were coming out of a period where, as I said in my remarks, we had these two fundamental characteristics of the system. One is, a long period that seemed relatively calm. So even with all the financial shocks from LTCM since, the system had got through them without catastrophic damage.

That created a sense, a false sense of complacency about how resilient the system was. And you had this enormous growth in leverage and run risk, liquidity risk, in a large parallel financial system. Those were related. And it was--people could not assess, because they had no experience, with what a shock this large would do, what would happen when you had a run on that system.

Now, but you're exactly right, so the oversight system, as I said in my remarks, did not give--did not establish a set of classic constraints on leverage that all financial systems require on what came to be a large part of the American financial system.

And people tried, with duct tape and string, like the SEC did in their CSE regime, to take the authority they had and make the best of it, and try to get to a point where they were trying to put in place better constraints, but that effort came too late. It was too weak. It was not grounded in law. And it was fundamentally inadequate.

CHAIRMAN ANGELIDES: So let me ask this. That is, given you had spoken on this, and you had actually identified what you saw were levels of risk, and some might say levels of irresponsibility, so you saw those two trains of risk and irresponsibility, you know, going towards each other, towards collision. Do you believe that you or others in leadership sounded the alarm early enough and loud enough?

WITNESS GEITHNER: Oh, Mr. Chairman, I will say this always, and I would say it again, absolutely we could have done more.

CHAIRMAN ANGELIDES: Okay.

WITNESS GEITHNER: Absolutely. And, you know, people ask is this inevitable? Were we really fundamentally powerless as a country to prevent this from building up?

And I do not agree with that. I do not believe we were powerless. I think that--it's unfair to say this just from the benefit of hindsight--but I would say that if the Government of the United States had moved more quickly to put in place better design constraints on risk taking that captured where there was risk in the system, then this would have been less severe.

And if the Government had moved more quickly to contain the damage, I think the crisis would have been less severe, as well.

CHAIRMAN ANGELIDES: So let me talk about that. In the last two days, I've cited a number of market warnings that I won't repeat today from the dramatic expansion of mortgage debt in this country, to the explosion of subprime lending, the efforts of states that were preempted by the OCC to fight unfair and deceptive lending. And, look, I was a person in real estate investment, just on the ground seeing 11, and 12, and 13, and 15 percent annual increases in home prices. So a lot of warning signs out there.

So clearly one of the things you've identified is the lack of the structural ability to move on these problems, but do you also think--I want to ask this, and I've really thought about it as we've gone through a set of hearings--do you also think that the system doesn't have enough iconoclasts in it? That the decision making process is unduly controlled, essentially, by people who are of the financial system and close to it and unable to step away from it in a way you need for true risk assessment?

WITNESS GEITHNER: I think--

CHAIRMAN ANGELIDES: And of course I think there are variations of this, all the way from people maybe on Wall Street who can't see what's happening in Bakersfield, and Sacramento, on the ground to families, to people who just don't have enough distance to make a critical analysis that you would want and expect?

WITNESS GEITHNER: I think that is a very good question. And I try always--I've always done this in my jobs, and I definitely tried in the New York Fed to make sure that we brought together people in advisory committees we established that represented a great diversity of views in these things, from the academic community, from the broader business community.

And we put in place a series of advisory committees that tried to capture that diversity of interests and perspectives. Because I think what you said is so important. And I think that it's very important for policy makers to make sure that they force themselves to be exposed to a wide diversity of views.

Fundamentally I don't think that was the problem.

I think the problem was that you did not have a centralized accountability matched with authority anywhere in the government to look across the system, try to identify where we had a problem, and have the capacity to go in and act preemptively to try to put in place measures that might mitigate those risks.

Our system was fundamentally solid and balkanized. You had people trawling over parts of the system, and parts of the system that are very risky with nobody looking at it, and nobody responsible, nobody in charge, and that was a tragic failure for the country as a whole.

It was an avoidable failure, I believe. It's easy to say that in hindsight, but it was true, as you said, at the time that anybody who was operating in that world could see that you were seeing classic signs of a asset price credit bubble that could prove very catastrophic.

And the way I used to say it, Mr. Chairman, was that we had this huge wave of changes in finance, capacity to hedge, other things that helped disperse risk, that looked like that produced a more stable system. They looked like they would reduce the probability of a major financial crisis. But they also--and this was essential to what happened--they also meant that if we were to face a major financial crisis, it could be much more damaging and much harder to manage. Because it was likely to take place and start, as it did, in this parallel system where there was much more leverage and liquidity risk. Derivatives markets complicated it dramatically. And you did not have in place tools there to try to contain the damage earlier. And that is really the story of the crisis.

CHAIRMAN ANGELIDES: And many of those, quote/unquote, "signals" I was talking about were not just market data, but looking at leverage ratios, liquidity risk in those firms that were evident.

Now two very quick, specific questions, because I want to move on to other Commissioners, about points in time. Because one of the things I think we are trying to do is also try to measure what people saw at different points.

So very quickly--and I raised this with Secretary Paulson today--on March 16th there was some engagement, as you know, between the Secretary and Fannie, Freddie, OFAO, I think fairly stated, to life the portfolio caps, keep them in the marketplace as the private market has totally withdrawn.

The only reason I mention it is there's a reference--and I don't expect you to know this email, but I'm looking for the bigger picture here--Bob Steele, who's involved in these negotiations essentially to keep Freddie in the game. I think that's how Secretary Paulson would phrase it.

It says: I was leaned on very hard by Bill Dudley to harden substantially the guarantee. I do not like that. It's not been part of my conversation with anyone else. I view that as a very significant move, way above my pay grade, to double the size of the U.S. debt in one fell swoop.

I think what I'm really driving to is, in March, that Bear weekend, were you worried about what something of the magnitude that ultimately happened in September happening in March?

WITNESS GEITHNER: Absolutely. I think we all were. I'm sure Secretary Paulson was. At that time, as Bear Stearns fell off the cliff, we were deeply worried about what that would do to the broader stability of the financial system. And we knew at that point that Fannie and Freddie, like many other parts of the financial system, faced very substantial losses on their, particularly their retained mortgage portfolio. And we worked very hard to encourage the relevant authorities to encourage those firms to go out and raise a lot of capital.

As we were doing in other parts of the system, it seemed the straightforward, sensible thing. And that was important because, as we saw, fundamentally, short capital going into a storm like this is catastrophic, and they were short capital.

And the problem with these crises is, people tend to wait. If they wait too long, it looks weak, the pricing is expensive, they don't want--their shareholders. So it's the basic classic pattern that was magnified dramatically in the untenable corporate structure Fannie and Freddie had, and we worked, as many people did, very hard to try to encourage people, to encourage them to raise capital early for exactly the reasons that the email reported.

CHAIRMAN ANGELIDES: Just kind of yes or no, were you for hardening the guarantee at that point? Did you share Mr. Dudley's view?

WITNESS GEITHNER: I often used the argument that you need to make it more credible to the world. They're going to have the financial resources to meet their commitments. You can do that lots of different ways. One is by making sure they raise more capital. The other is to strengthen what was an implicit commitment at that point for the government to stand behind them.

And ultimately of course that was--both were necessary, and I was fully supportive of the judgment, of the need to take that step.

CHAIRMAN ANGELIDES: All right. Final question for you. And this again goes to depth. Later today we will have a panel of GE Capital, Pimco, State Street, participants in the, quote/unquote "shadow banking system," but also the repo market.

Now it appears from documents that we have that GE was able to keep going with its issuance of commercial paper throughout this crisis, even though of course the general spread over LIBOR increased for all participants. But, you know, at some level the disruption of the credit capacity of GE speaks volumes about the depth of what we were seeing.

So on September 29th and 30th, you had six telephone conversations with Mr. Immelt. And just to put that in context, you probably lived--you know, you probably didn't get any sleep these days, but the 27th and 28th was the day that Goldman and Morgan Stanley became bank holding companies, that weekend.

On Monday, the 29th, that's the day the Dow dropped 777 points after the House voted down the financial bailout bill.

Was Mr. Immelt speaking to you about concerns about disruption and their ability to issue commercial paper?

WITNESS GEITHNER: What you've seen, you've described exactly well. At that point, after that famous mutual fund, money market fund broke the buck in the wake of Lehman's failure, you had a broad-based run on money market funds, or the risk of that. And you had a broad-based run on commercial paper markets.

And so you faced the prospect of some of the largest companies in the world and the United States, losing the capacity to fund and access those commercial paper markets.

So we were involved at that time in designing what ultimately became the Commercial Paper--

CHAIRMAN ANGELIDES: CPF.

WITNESS GEITHNER: --Financing Facility, which is a backstop for the commercial paper markets, to complement the temporary guarantee for money market funds.

So I was involved in a whole range of efforts to help design that facility. And I was exposed to and had conversations with people across the financial markets who depended on commercial paper markets, who were trying to make sure we were aware of what was happening and how perilous it was.

You didn't need a phone call to tell you that. All you needed to do was look at what was happening in the price of that stuff and how hard it was. And it was a development that was self-evident and obvious to all of us at the time.

CHAIRMAN ANGELIDES: But was Mr. Immelt concerned specifically about that and talk to you about that?

WITNESS GEITHNER: I could go back and try to refresh my memory on those specific conversations, but what I'm sure they were about is trying to make sure we were aware of how perilous they thought even a company that strong, how perilous those markets were at that time.

But as I said, that was self-evident. It was obvious, conspicuous, and you could see it just looking at your screen.

CHAIRMAN ANGELIDES: Right. And I don't expect you to carry our daily planner with you, but if you would check on that, because I think we're trying to get a measure of the intensity and direct concerns by different market participants. If you would check, it's September 29th and 30th, and there are six conversations.

Thank you. That's all my questions at this point. Mr. Vice Chairman?

VICE CHAIRMAN THOMAS: Thank you, Mr. Chairman.

Mr. Secretary, I do really appreciate, one, your willingness to come before us, but, two, the manner in which you have done so. I am very sensitive to structure and protocol, having been around a long time, but our ability to talk to Secretary Paulson, and the value of his having been on Wall Street in the private sector, and then becoming Secretary of the Treasury, followed by your presence which had you at the Federal Reserve just prior to coming to the

Secretary of the Treasury--I noted both of you also went to Dartmouth; I don't know what that means to all these Harvard guys around, but I appreciate that.

(Laughter.)

VICE CHAIRMAN THOMAS: It gives us an opportunity to ask questions which bridge that 2002-2003 to 2009 window in a way I don't think we've ever been able to do that.

So when I ask you this question, especially based upon your comments about what you did at the New York Fed in bringing together experts for the state of risk management, then running a global confab with those same subject matter, and most people can't see this, and this is the only thing I have available right now, but basically it's the assets of selected financial sectors.

And it shows, the blue, obviously are the deposits of the old-fashioned banks, and then this is the shadow banking above it (indicating). And it is a Federal Reserve Board of Funds Flow Release.

So it was around, and people were aware of that. And when you run the numbers, and this is all 2008, you have this commercial banks at about $7.3 trillion, the so-called shadow banks somewhere between $7.1, $7.3, so I mean a 50-50 split right there. When you look at the residential mortgage-backed securities, 2008, about $6.7 trillion. And then you've got over-the-counter derivatives, same time frame, about 2008, gross market value of $20 trillion, nominally $684 trillion.

And we all knew about the runs on the bank in the '30s and the liquidity problem. Didn't anybody talk about the top-heavy aspect, that somehow what worked to keep conventional banks--and because of those restraints then they developed other approaches, but clearly it was the same thing almost all over again, except much more difficult to perceive because of the muddiness, the ratings, and the rest. That never came up as a subject matter, either when the experts sat around and talked about we're kind of concerned about the weight shift into an area that could have liquidity problems and could be subjected to a run like we had in the '30s?

And the global folk didn't talk about it, either?

I just don't get it. And I need to understand. Now what we've heard from a lot of other people, players in the market, was that nobody had a model that in the pejorative sense people have said that never thought housing prices were going go down--I think the corrector answer is, no one thought they were going to go down that far.

And even given that, you have areas in the government that talk about disasters that no one likes to think about because somebody's got to think about disasters that no one thinks about.

I would think that the New York Fed might be involved in that. Looking at those markets, the monitoring job may not have a direct power position, but you're the best person in my opinion to ask in that '03 to '08 period.

What happened?

WITNESS GEITHNER: Absolutely. Let me just begin by saying financial crises are caused by unwillingness of people to think the unthinkable, and say, well, that seems kind of unlikely so we're not going to worry about that.

That is the fundamental mistake that underpins most financial crises. And our system was--that mistake was pervasive across the system.

VICE CHAIRMAN THOMAS: Basic, or total?

WITNESS GEITHNER: Well, complete, whichever phrase you want to use.

VICE CHAIRMAN THOMAS: Yeah, because even the people, the watchers watching the action apparently thought the same thing.

WITNESS GEITHNER: No, I wouldn't say that.

VICE CHAIRMAN THOMAS: Okay.

WITNESS GEITHNER: The initiatives that I described that the Chairman began with, that we at the New York Fed were engaged in, we didn't call it, we didn't really talk it back in '04-'05 about the shadow banking system, but we were deeply focused on exactly this risk.

You know, when I explained to people when I first came into that job, I said, well, let's just look at the system today. It's true we have these major banks, but what about the investment banks? Who is watching them?

What about AIG? What about the GSEs? What about the hundreds of finance companies that built up, not as banks but doing basic banking?

So that basic concern about the vulnerability of the financial system to systemic risk in those institutions was central to the efforts that I described that we initiated.

Now you are right to say that those were outside of our--in many ways outside of our formal legal authority, and outside of our mandate in some sense, but we knew they made the core of the system we were responsible for more risky. And we knew we were in the classic position where in effect we were the only fire station in town you could turn to when things fell apart for liquidity.

But we had no capacity to constrain risks outside that regulated core. But what none of us anticipated I think was--and I certainly did not understand fully--was what produced that parallel finance system, how vulnerable it was to runs. How you could have had a system where these people were--again, they were operating in public markets, issuing publicly rated debt under the disclosure laws of the United

States, funded by institutional investors, that market discipline and all the checks and balances we rely on in that area would have proved so inadequate to contain leverage earlier.

Fannie and Freddie you could understand because it was centrally moral hazard, but in the other part it's hard to make that argument in that case.

So I guess I would say that set of concerns was central to the efforts we began, but fundamentally what we learned, what we discovered is, and this is an important lesson for us that underpins our reform efforts, is that you can't run a stable system with one part under constraints and leverage and one part without.

And these constraints on leverage, capital requirements, were not conservative enough, where they existed, and they were not designed in a way, given the accounting disclosure regime, that allowed us to fully capture the risk in the extreme event.

And partly because of the reliance on ratings, partly because we have this long history before relative stability, so it wasn't in the memory, and that left the whole system more vulnerable to the collapse when it came.

VICE CHAIRMAN THOMAS: So given those areas that you did have responsibility over, the old-fashioned commercial banks, Bank of America, Morgan Chase, Citibank, the one thing that strikes most people when they talk about it, they're really, really upset about what happened in the residential mortgage area because it affects them directly.

What scares them more was the fact that there were no firewalls anywhere. And that what started in an area that you could say wasn't regulated, by definition shadow banking and the rest of it, but it also affected the structure that was designed after the initial failure not to fail again.

WITNESS GEITHNER: Exactly.

VICE CHAIRMAN THOMAS: Okay, so I got it right, but how come we didn't get it right?

WITNESS GEITHNER: Well, again, we came in--another tragic failure of the crisis was that we designed a system with deposit insurance around banks, access to a lender of last resort, basic protections designed to prevent a fire caused by the failure of a single bank to infect and jeopardize the stability of banks.

That system, long tested over time, comes with moral hazard risk. Not perfect. Lots of failures, the S&L crisis being a good example. But this other system had none of those protections. No fire breaks. No firewalls.

And the Executive Branch of the United States, the largest financial system in the planet, came into the crisis with the President having only emergency authority limited to the act of closing financial markets, or declaring a bank holiday. Actions in a crisis which are largely panic-increasing, not panic-containing.

So you're exactly right. We didn't have the tools to prevent the fire from jumping the firebreak and infecting the system, and these reform proposals Congress is debating--I know that's not the subject of your hearing--are designed to provide exactly those tools, to make sure that large, complex institutions like AIG manages itself to the edge of failure, you can put them out of their misery safely and prevent the fire from breaking--from jumping the fire break.

VICE CHAIRMAN THOMAS: One last question, which again amazes me in terms of how many people have used it as an answer, in terms of the assets that they held and the potential liquidity, especially in the shadow banking area, they were AAA rated.

I mean, at what point, when you look at the kind of residential mortgage product that was bundled, everybody knew, people that you never thought could get in a house, had gotten in a house. So something had happened to the old 20-percent-down and all the other arguments that gave you some comfort.

Why would anyone think a package of the '08 stuff would have the same AAA rating as the package of the 2000 or

1990 rating? Was it because they wanted to believe it did?

I mean, how could anybody think that? And especially this group of experts and others?

WITNESS GEITHNER: Well when things are going well, people are making money and they tend to think they're smart, not lucky, and they think that it just validates wisdom.

VICE CHAIRMAN THOMAS: Mr. Secretary, I just have to tell you that when things are going well and people are making money, no one thinks about making the amount of money that was being made--

WITNESS GEITHNER: I agree. I completely agree.

VICE CHAIRMAN THOMAS: --on Wall Street. That's not money.

WITNESS GEITHNER: I completely agree. And it reinforced again this basic collective sentiment that we had somehow produced a perfectly stable system immune to shocks, things couldn't go bad. And you're right in many ways, what happened to compensation, a whole range of other incentive structures, fed that illusion.

VICE CHAIRMAN THOMAS: Thank you.

Somewhere I remember reading something about pride going before a fall. Thank you, very much, Mr. Secretary.

CHAIRMAN ANGELIDES: Ms. Born.

COMMISSIONER BORN: Thank you very much, and thank you, Mr. Secretary, for being willing to join us and help us in our investigation.

Your testimony I think demonstrates how there were regulatory weaknesses, regulatory gaps, that tied the hands of the regulators and financial supervisors during the crisis.

And I take it that you feel that lack of regulatory powers in some areas was an important aspect of the problem.

WITNESS GEITHNER: Oh, absolutely. As I said in my written testimony, this crisis is littered with examples of authority that was not used early enough and forcefully enough.

But in the subject of your hearing, and this is true for shadow banking, parallel banking, derivatives markets generally, I would say the oversight failure was a gap, a vast gulf in accountability and legal authority that prevented people, even people who had perfect foresight, from acting preemptively to contain those risks.

COMMISSIONER BORN: Let me just ask you briefly first about the over-the-counter derivatives market, an enormous and unregulated market, as of the time of the crisis, where there were tens of thousands of contracts out there creating counterparty credit risk, and virtually no transparency.

You said in your testimony: These markets have proved to be a major force of uncertainty and risk during periods of financial disruption.

Do you feel that the lack of regulation, the lack of transparency, the enormous size of the market, played a role in exacerbating the financial crisis?

WITNESS GEITHNER: I do. I would emphasize two things, though.

The first is that--and this is I think fundamental. You had very large institutions writing hundreds and hundreds of billions of dollars of commitments in derivatives without capital to back them up. This was obviously true for AIG, but it was true for a whole industry of monoline insurance companies, and of course it was true for many other financial institutions.

So fundamentally what happened is, when they had to meet those commitments they didn't have enough resources to do it. And of course that brought them to the edge of collapse.

But I think the other problem was that in this world of millions of bilateral contracts it was like spaghetti, cooked spaghetti together. And when the crisis hit and you had to untangle those and try to figure out what was my exposure to default risk across the system, it was very hard for people to know.

And, they reacted as people do in facing fear. They decided, I am going to withdraw and pull back from risk wherever I can. And that in a crisis tends to feed a panic like margin spirals do, and that tends to amplify the crisis.

So the inability that those tens of thousands or millions of contracts provided for people to assess quickly what my exposure was to a risk of default by a major institution was a substantial factor exacerbating the panic and made the crisis harder to manage.

And of course the paradox is that those were markets designed to help people hedge risk. And that gave people the capacity to hedge risks, but it also gave them much more risk of exposure to panics when things fell apart.

COMMISSIONER BORN: So not only--I mean, I believe they are very useful instruments and essential to managing risk, but they also magnified risk greatly in this disruption.

WITNESS GEITHNER: I agree with that.

COMMISSIONER BORN: Is this why the Administration is proposing regulatory oversight over the market?

WITNESS GEITHNER: Yes, absolutely. Again, these markets grew up--grew dramatically in the decade that preceded this crisis. You know this of course very well.

The risks were apparent to many earlier, but they grew dramatically over that period of time. And it was a fundamentally--I mean, people were doing this thing by spreadsheet and fax. People did not have electronically accessible records of what their exposure was.

There were huge backlogs of transactions not captured by risk management systems. So when we came--when I came to the New York Fed and we started an effort to clean that up and produce it, it put us in the position where we could finally propose reforms that would bring the standardized part of the market onto clearinghouses and make sure that centrally cleared stuff would be traded on exchanges, or on electronic trading platforms, and the reforms also of course as I said give people the authority to make sure that major institutions writing these commitments are forced to hold capital against it; that margins are conservative enough; and that the SEC and the CFTC have the tools they need to better police fraud and manipulation to deter fraud and manipulation earlier.

Those are the reforms now working their way through the Congress, and they are a very strong package of reforms.

COMMISSIONER BORN: You have essentially indicated that the lack of regulation, or the lower level of regulation in shadow banking made the shadow banking sector more vulnerable to the financial problems that we experienced in 2007 and 2008.

And I wanted to ask about kind of the flip side of the coin, which is: Whether the growth and competition of the shadow banking system impacted subtlety or at all on banking regulation?

Because this was a less-regulated system. I think the banks did suffer competitively with various aspects of the shadow banking system. You know, they lost deposits to the money market funds. They lost potential commercial loans to commercial paper, and repo. And I can imagine that commercial banks, having felt this competitive pressure, would have wanted to be able to engage in broader activities and with less constraints from banking regulators.

We have been told during our investigations that by the time Glass-Steagall was altered by Gramm-Leach-Bliley, there was not a great deal of separation in fact between the activities commercial banks could engage in and investment banks.

So I wanted to ask you whether, as a banking regulator, you saw pressures to soften constraints on the commercial banking sector because of the growth of shadow banking?

WITNESS GEITHNER: I did not feel those constraints. But what you described was central to everything that was happening. And you gave all the right examples. But let me provide a couple, a few more.

We created a system that allowed institutions to in effect choose the regulator. The best examples of that were banks that chose to become thrifts, Countrywide being the best example.

A lot of people thought regulatory competition was a virtue. It would produce better regulation. But if you allow people to move risk to where the regulations are weakest and they operate with leverage and risk to the system, that's just a catastrophic choice.

So you saw it definitely across banking regulators. And in fact, you know, Countrywide is an example where Countrywide was able to evade the tougher restrictions of a Fed regime and choose the softer regime, restrictions of an OTS regime. That's a good example.

And overwhelmingly you saw people pressured, banks and--pressure to follow the market down. What happened in mortgage underwriting is another great example.

I think it's true in the early part of that decade, really probably up to 2004, most mortgages were still underwritten by banks and by thrifts.

But over time of course most of the mortgages migrated to other parts of the system outside the banking--remote to the banking system for the same basic reason.

So again, the mistake is to permit that on a scale that can threaten the system. And again what these reforms do, which is very important, is recognize the basic principle that if you're doing banking we regulate you as banks so we can better protect the system.

It doesn't mean everybody has to be exactly the same in their financial structure, but the leverage requirements they operate with, the requirements on funding, should be economically similar so we produce a level of stability that's more tolerable for the country.

COMMISSIONER BORN: When you were at the Federal Reserve Bank of New York, you and your staff had the role of overseeing some of the biggest bank holding companies in the world. And those were also institutions that suffered adversely during the financial crisis that we've experienced.

I wonder if you would comment on the ability of supervisors to effectively oversee institutions that are that large and that complex? And, whether you felt that you and your staff really had the capabilities to do the kind of job you would have wanted to do?

WITNESS GEITHNER: I believe we did. And I think that we have examples where it worked quite well, and examples where it was just fundamentally inadequate.

It was absolutely made more difficult by the fact that we were operating in a system where the checks and balances that we all rely on, which are internal controls, good audit control regimes in these firms, risk management systems that look across the entire entity and capture those risks and bring them together so you can look at them, those things were fundamentally weak and inadequate, and we were very vulnerable to that.

We were somewhat vulnerable to the fact that under Gramm-Leach-Bliley we rely on functional supervisors to supervise for safety and soundness the underlying bank, or in the case of the SEC in this case it was the broker-dealer. And these firms operated across the world and were able to push risk into other jurisdictions like in many cases in the UK in ways that make it harder to capture it. And we were vulnerable to those limitations of that system as a whole.

And of course as we've learned, the capital requirements, and the accounting requirements, and the disclosure requirements did not do a good enough job of giving us a good picture of what capital really was relative to risk.

And that is why the big lesson I take from this, among the many lessons, are to make sure that we force the system to run with more conservative requirements on leverage. Because I do not believe you can design a system that depends on a community of regulators always being wise, and tough, and smart, and have foresight, and perfect foresight to come and preemptively and preempt pockets of risk, and bubbles, and leverage. I think it's unlikely.

We will do our best. Our successors will do their best. But they will be imperfect. And the best defense against that potential problem is to force the system to run with stronger shock absorbers: reserves, in terms of cash available to absorb losses across the system; and again that's the lesson we're trying to bring about with these reforms, so that not just the institutions run with less leverage, but that markets like repo, or secured funding markets, securities lending markets, et cetera, derivatives markets, where firms come together, also run with much more conservative cushions against the unknowable, against the uncertain, against the likelihood, the possibility that the next shock could be beyond our imagination, beyond our experience, and could be very damaging.

I think that's the central lesson we try to take--I try to take from the crisis.

COMMISSIONER BORN: What about the need for a systemic view which is very hard for any of our existing regulators to have because of their siloed jurisdiction?

WITNESS GEITHNER: I think that is very important. There are two ways to do it, just conceptually.

One is to take all the regulatory responsibilities that are relevant to systemic risk, put them in one place, like maybe the British did in some ways, and have a single point of accountability for measuring and managing all those basic risks.

I don't think that system works. I don't think it's feasible. We're proposing a different model, which is to create a council, which brings those firms, those entities together with their functional specialization for market integrity, for resolution like the FDIC for safety and soundness, for the payment system, et cetera, and put them in a place where they have to sit around the table with the Secretary of the Treasury, who because we're the custodians of the taxpayers' money, and fundamentally responsible for the financial security of the country, have to be in a position to be accountable to the Congress for making sure that complement of regulators is running the system sufficiently conservatively, that there are not big gaps, the system is not lagging way behind the growth in these markets.

Now that is not going to force perfect foresight, but I think it offers a better chance of at least forcing somebody to be accountable for looking across the system to make sure that we don't recreate again huge gaps, opportunities for evasion, arbitrage, where the rules lag way behind risk in the way they did in this case.

COMMISSIONER BORN: Could I have two minutes?

CHAIRMAN ANGELIDES: Two minutes.

COMMISSIONER BORN: Let me ask you one last thing. There became prevalent a view among economists, a view among some regulators during the last 10 or 20 years, that financial markets were essentially self-regulatory, and government supervision, government regulation of markets, was either unnecessary or actually counterproductive.

Do you think that played a role in the regulatory weaknesses and the regulatory gaps that you have described in your testimony?

WITNESS GEITHNER: It's hard to know. I find it hard to imagine that anybody who lives in financial systems believes fundamentally they are self-regulating, just because the history of financial systems is a history of recurrent crises, some devastating like this one, and some more mild, but always consequential.

And we learn those lessons painfully, of course, but I think the lesson of behavior and experience in history is that if you allow institutions to take deposits that can be withdrawn on demand and make loans that can't be called on demand, then you create a risk of runs. And if you allow them to run with big leverage, that's consequential to the economy as a whole.

And so we built up a set of protections, not just to counteract the moral hazard caused by the perception that these firms are important--failure would be consequential--but to make sure that you protect the economy from things getting out of whack.

Now our system, like any country, has among its strength, it has a lot of people with diverse perspectives making these decisions in the Congress and in the regulatory community.

I think the real problem was that that long period of stability allowed all views to prevail. Some people could say that proves that all these innovations reduce risk; that they prove that the market is working well; that capital requirements are strong. And that long period where risks seemed permanently reduced allowed people to not confront I think what were fundamental vulnerabilities.

So that is the way I would try to answer that question.

COMMISSIONER BORN: Thank you.

CHAIRMAN ANGELIDES: Mr. Holtz-Eakin.

COMMISSIONER HOLTZ-EAKIN: Thank you, Mr. Chairman. Thank you, Mr. Secretary, for coming today.

One of the things that is delightful about your testimony is you actually are clear about what you think and don't think of what went on, and that is not in the typical performance by someone at the table. So thank you.

Let me ask you a few questions about that. One thing you said is that a root cause of the crisis is uneven regulation, or absence of regulation.

Yesterday we learned that under the CSE Program the SEC felt that all of the five major investment banks had adequate capital. They met the Basel II Standards. They had the 10 percent capital that the Fed would have required. They had more than adequate liquidity because they had gone above the Standards the Fed imposed on bank holding companies.

What difference would having it be a legal requirement make, given that they were in compliance with the standards?

WITNESS GEITHNER: I want to answer that question carefully because I was not--as you know, I was not their supervisor--

COMMISSIONER HOLTZ-EAKIN: I know.

WITNESS GEITHNER: -- and I have no underlying knowledge of their financial condition, but I think it is very--

COMMISSIONER HOLTZ-EAKIN: But you're saying that it's necessary to have legal regulatory authority, and since they were in compliance with the regulations, what does making it legal do?

WITNESS GEITHNER: I think it would be actually very hard to justify a judgment that those firms were operating with a level of leverage and a sufficiently conservative funding structure that made them equivalent, certainly three of them, equivalent in terms of stability to those firms that were operating under the constraints of the leverage ratio and the broader bank supervisory regime.

I don't think--I would not agree with that judgment. And of course I'm limited by the fact that I don't even know what happened after, after the storm enveloped many of them and had no direct knowledge before that. But I think it is fair to say, looked at in the appropriate way, which is economically, they were allowed to run with more leverage, much more exposure to run risk than was true for a classic bank subject to a leverage ratio and the other requirements that came.

COMMISSIONER HOLTZ-EAKIN: Well I guess that leads to my second question, which is the assertion that this was a fundamentally more fragile structure. In the aftermath it appears that regulated banks, commercial banks, and the shadow, whatever you want to call them, failed at comparable rates.

WITNESS GEITHNER: I think--

COMMISSIONER HOLTZ-EAKIN: So where's the fragility--

WITNESS GEITHNER: --I think you're right to point out, we know the banking systems are fundamentally fragile, and most financial crises are classic failures of traditional banking. Banks lending too much for too long without--too cheaply, without being compensated for risks, et cetera--so you're exactly right, and this crisis shows you both examples.

But it began and was much more severe, in my view, in this parallel banking system. And I think the crisis would have been much easier to manage if it was simply a classic banking crisis, which are slower moving by design because liquidity risk is more contained. But I think you're right to say on both divides, traditional banking and in parts of the shadow system, you saw people taking too much risk against the possibility, the remote possibility, they thought, of a deep recession, a deep fall in real estate values.

I think you're right. And as I said in my remarks, I absolutely believe that the leverage constraints, the capital requirements that were put in place in the traditional banking system were not conservative enough. And I think they were not conservative enough in two respects.

One is they didn't give enough weight to the possibility you'd have a huge shock like this. And they also didn't capture the exposures banks had to the pressures that would come when that parallel banking system--didn't collapse, but parts of it collapsed with enormous stress.

So I think those were a failure in design of capital requirements around traditional banks as well.

COMMISSIONER HOLTZ-EAKIN: Just as a point of clarification, would you agree that you don't really want to call it "shadow" versus "traditional banking" in terms of institutions? There's a set of activities that were located in traditional banking and seen by the regulators that were simply the activities that were the same as in the shadow banking system, right?

WITNESS GEITHNER: There were, yes.

COMMISSIONER HOLTZ-EAKIN: The banks owned hedge funds.

WITNESS GEITHNER: I think that's fair to say. And if you want to try to say what's the one cause that was common to everything--

COMMISSIONER HOLTZ-EAKIN: Well I would love to hear that, because you haven't disagreed with any of the causes that have been put up so far. So what don't you believe started the crisis? And which causes are the most important?

WITNESS GEITHNER: Well I was going to say I think if you look at a single factor that underpinned the risk management failures, the failures of the capital regime, the ratings failures, et cetera, was the failure to anticipate the possibility that houses prices would fall as much as they did and what effects that would have on stability as a whole.

And, you know, that failure is the same failure that caused millions of families to borrow more than the value of their home was likely to be worth, as well as people lending more against the value of their home than was probably prudent in general. I think that would be one.

What was not a cause of the crisis?

COMMISSIONER HOLTZ-EAKIN: Yes. Which things that people have put forward do you think ought to be crossed off our list? We don't have forever to write this report, so--

WITNESS GEITHNER: Well why don't you give me your candidates, and I'll respond.

(Laughter.)

WITNESS GEITHNER: I mean, I do think--

COMMISSIONER HOLTZ-EAKIN: Global capital flows.

WITNESS GEITHNER: I'll give--global capital flows? I believe that a long period of very low real interest rates around the world absolutely contributed to the crisis. I think that created this enormous force of money looking for a return. I would say it was a factor.

I mean, this is a deeper conversation of course but there are people who believe that at the root of everything was a unifying moral hazard risk, which as I said I think is more complicated than that.

I don't believe that the existence of the fire station causes financial crises. So I wouldn't put that high on the list.

COMMISSIONER HOLTZ-EAKIN: Okay.

WITNESS GEITHNER: But you probably should test me on the others.

COMMISSIONER HOLTZ-EAKIN: Let me go to--I'll come back to this. I don't know what order to do this in, but I don't want to lose all my time.

Another thing you said in your sort of diagnosis of the problem was the absence of a systemic regulator, and I was instantly going to point out the FSA and the fact that England had a financial crisis, and you've already dismissed them as not your preferred model.

But to what extent did we not already have a President's Working Group on Financial Markets that had the capacity to do exactly what you're suggesting: sit down, look at risks, and we got a financial crisis anyway?

WITNESS GEITHNER: An excellent question, I agree, and I think that that body did not provide this important function. And you're also right to say that it's just establishing in statute that it's now a Council with a more formal mandate won't necessarily make sure that people use that with that effect.

But I think it is an important difference in the sense that the way the reforms are designed now, there really is an explicit mandate with the ability to in effect deter weakening of, let's say, prudential safety and soundness requirements, and to recommend they be higher.

And the existing, much more informal structure that is the President's Working Group doesn't come with that mandate or that responsibility. So I think this would help.

But again, as you know, I think from what I said, I don't think committees prevent financial crisis. I don't committees solve financial crises. But on the other hand, you do need to invest people with the direct responsibility. You want people to wake up every day with a sense of obligation, not just to look across the system where risks are, but to give them some authority to act in that case.

And we did not establish in the Executive Branch of the United States that set of, that obligation or quite that capacity for leverage.

COMMISSIONER HOLTZ-EAKIN: I want to go back now to your time as president of the New York Fed. During that period, the Board of Governors came to the conclusion that the risks in subprime housing could be contained, and indeed made a statement to that effect.

Did you agree with that?

WITNESS GEITHNER: I never made that statement, was not part of making it--

COMMISSIONER HOLTZ-EAKIN: Did you agree with it?

WITNESS GEITHNER: --and I would not have said it that way. What I said, and I believe I tried to say this, was that I think we faced growing risks across this financial system of exposure to a very dramatic crisis.

And part of it of course was what was happening in real estate markets. It was not principally because of what was happening in subprime. It was a much broader phenomenon that produced this mix of leverage across the system. So I tried to cast it, when I talked about it, as facing significant risk but risk from a much broader and I think more dangerous constellation of forces than simply what was happening in subprime.

COMMISSIONER HOLTZ-EAKIN: And what would be on that list in that constellation?

WITNESS GEITHNER: Well again, to oversimplify, you had people taking huge leverage bets on the possibility on a world which did not envision house prices falling sharply, or growth falling off the cliff.

That was the unifying mistake that so many people in risk management, investors, borrowers, made.

COMMISSIONER HOLTZ-EAKIN: Were you surprised by the concentration of mortgage exposures on the balance sheets of, for example, the regulated banks? Citi--

WITNESS GEITHNER: No. I think that, you know, banks lend money. Banks always hold exposure to real estate risk, as you've seen across the country. You know, the story of community bank failures across the country is deep, concentrated exposure to commercial real estate relative to capital. So no surprise in that.

What was surprising was that a huge part of that risk was held in these financing vehicles that came with very high ratings, in these structures that came with very high ratings. And as I said, this is a fatal flaw in the capital requirements, that they were not designed--they were designed in a way that made the system much more vulnerable to those failures and did not protect against those failures.

So people everywhere took false comfort from the fact that a huge amount of these exposures to real estate risk were in securities that were rated AAA.

COMMISSIONER HOLTZ-EAKIN: Were you surprised by the large amount of hedging that was done through AIG and other monoline insurers through the CDs?

WITNESS GEITHNER: Of course I was like up to my eyeballs in the growth in the CDS market and what that meant for the system, but we had no window in, no capacity to assess who had actually written huge commitments relative to their capital.

Because, as you know, the things we could see were only in those institutions we could regulate, and as I said even those metrics we used were flawed. But we were not able to see where you had those huge pockets of risk in institutions outside the banking system that wrote those huge commitments in derivatives.

COMMISSIONER HOLTZ-EAKIN: When you tasked Mr. Corrigan to assess risk management practices and develop best practice and sent them off to the financial community, how did they do? You never said.

WITNESS GEITHNER: They did--well, the institutions did not do well, but the recommendations I think, even if you look back in retrospect at them, were quite good. And what we did not--and as I said, I think the lesson I take from this is that we did not have sufficient traction to use those recommendations to induce enough changes in behaviors earlier largely because we were still operating within the existing capital requirements.

And I don't think--I think the only way I can think of preventing that from happening in the future again is to make the simple capital requirements and the leverage ratio and the other ones conservative enough so you can rely on them, not rely on all these other things we tried to do.

Remember, all these firms, when you looked at their stated ratios. they gave you some comfort that they held a fair amount of capital against their risks. That was false comfort. The simple lesson I think is just to say you've got to run the system with more conservative shock absorbers.

COMMISSIONER HOLTZ-EAKIN: I am in complete concurrence that in the end you need more capital. I don't want it to look like I'm contesting that. I was just trying to get a sense for, given what the perceived best practice might be, what your assessment of their actual practice was, and whether they improved it in response to this.

WITNESS GEITHNER: I think some did improve. There's a nice way to do this comparison exactly the way you're doing it. If you look at the Corrigan Report, Counterparty Risk Management Policy Group II Report, excellent title, and you compare it against this thing we organized called the Senior Supervisors Group Report, which is a report on actual practice across those firms that I think was published in the Fall of '08? '07? I'm not sure. And you can see in there a pretty stark comparison and criticism of what was the state of actual practice.

And I think we had significant effect in changing practice, but obviously not enough. Those efforts were inadequate.

COMMISSIONER HOLTZ-EAKIN: So, before I run out of time, two more questions.

Number one, you said in your opening statement that among the things that caused the crisis was the government not moving quickly enough to do things.

When should it have moved? And what should it have done? And what did you mean by that?

WITNESS GEITHNER: Well again, I'm making things more simple than they obviously could be. But to say that historically, I would say that it did move early enough, effectively enough, to contain the emerging risks across the system.

COMMISSIONER HOLTZ-EAKIN: Preemptively.

WITNESS GEITHNER: Preemptively, and when things started to fall apart--and I think this is true for governments around the world--did not move quickly enough and forcefully enough to try to contain the damage.

I think that the Federal Reserve was exceptionally aggressive, took a huge amount of criticism, did things we hadn't contemplated ever before with the authority Congress gave us, but in the end you can't solve these financial crises with tools that are about liquidity.

They require ultimately, as we saw, the full financial force of the government in terms of fiscal policy to support demand, and ultimately capital in the system and broad-based guarantees to contain panics. And I believe that if that had been deployed more quickly--and many of us of course were strong advocates of early action--I think this would have been a less damaging crisis.

VICE CHAIRMAN THOMAS: I yield the gentleman two additional minutes.

COMMISSIONER HOLTZ-EAKIN: In particular, one of the things that you pointed out is that investment banks don't have access to a lender of last resort--indeed, many of these nonbank.

A question that immediately comes up then is: Should the Fed have moved more quickly to provide Discount Window access to people outside bank holding companies? And as you know, there's lots of interest in the decision making that went into that, and I'd love to hear your views.

WITNESS GEITHNER: We were extraordinarily reluctant, I think appropriately reluctant to take that exceptional step. It had not been taken since the Great Depression, again, to provide our traditional lending facilities, against collateral, to institutions we were not supervising and regulating--because we knew in doing that you would be creating enormous moral hazard risk for the future.

And I think we were appropriately reluctant to take that step until we believed, and we came to believe of course that fateful week in March, that the system was at the edge of collapse.

Now those facilities of course are not designed to protect individual firms from their failures. They are designed to protect the system from broad-based runs to prevent solvent institutions from becoming illiquid. And they can only achieve so much, as you've seen.

But we were very reluctant until we were at the point where we thought there was a substantial possibility of systemic collapse. And at that point, it was absolutely necessary, and in my judgment essential, that we do it. And I fundamentally believe we did it at the right time.

COMMISSIONER HOLTZ-EAKIN: Thank you.

Thank you, Mr. Chairman.

VICE CHAIRMAN THOMAS: The former Chairman of Bear Stearns yesterday said that you did it 45 minutes too late. If you could do it an hour earlier, do you think the end result would have been significantly different? Different? Or ultimately no difference?

WITNESS GEITHNER: I don't. And I've had the chance to testify on this before. Again, these--and I think the history of what happened after this proves this basic point.

Again, these facilities allow us to lend against collateral to mitigate--not completely prevent--but to limit the severity of the liquidity run crisis. But they cannot prevent--they can't protect a firm that can't convince its investors it has a franchise that can earn enough money to cover their risk, has enough capital to cover their risks.

VICE CHAIRMAN THOMAS: Unless your pockets are deep enough.

WITNESS GEITHNER: And we were not prepared--we were not prepared to lend into a run on an institution that had lost the capacity to convince people it was viable. That would have been irresponsible as an act.

VICE CHAIRMAN THOMAS: Thank you.

CHAIRMAN ANGELIDES: Senator Graham.

COMMISSIONER GRAHAM: Thank you, Mr. Chairman. Thank you, Mr. Secretary, for excellent testimony.

I would like to put our crisis into a broader perspective. I have seen some foreign ministers of finance and others who have been at least subtlety critical that we may be moving too rapidly and therefore not properly integrating our reforms with what will happen on a broader multinational basis.

Could you comment as to where do we--is this crisis--if you do a diagnosis, would that result in a sufficiently similar determination of causation to then lead to essentially similar prescriptions being written for a variety of countries?

WITNESS GEITHNER: Senator, let me just say two things in response.

There are a lot of people--and we debated this--who made the argument a year ago that we should wait until this crisis was definitively passed. We should undertake a much longer reflection of how best to fix it before we began the process of broader reform.

And we made the different choice. We decided--and we did this with countries around the world--that we were better able to get consensus quickly on a stronger set of reforms if we were acting when people were deeply aware of the scars of the crisis and the damage; the memory hadn't faded.

And, you know, I think we know what we need to know about the core choices involved in reforming the system. And we've done this in close cooperation and in parallel with other major economies. So as early as April of last year when we were laying out our initial set of proposals, we also negotiated with G-20 and with the new Financial Stability Board, a complementary set of proposals that we hoped would be enacted globally.

And there are core elements of our reforms that, to be effective have to be done multilaterally. The best example of that is capital requirements globally. And we are in the process of negotiating a new international capital accord to limit leverage and risk taking.

But there are some things that are problems that are unique to our market that are going to have to be done a little differently. And our responsibility of course is to make sure we are fixing those things, too.

The world I believe generally would very much like to see the United States act to fix the things we got wrong in our country, and are depending on us to do it. And I've never heard any of them suggest to us that we should slow the pace of reform down.

They want to make sure that we are doing this in ways that globally would be not too punitive on them. And there's a lot of concern outside of the United States that some of the proposals we've been promoting on capital, for example, are going to be a big burden for other countries. And that is the source of some tension, as it is inevitable it should be, but it's a sign of, I think you should view it as a sign of health that we're trying to--we're being ambitious in what we're trying to achieve.

COMMISSIONER GRAHAM: If I could pick up on that issue of capital, I was surprised to learn that under the

Basel, I believe it's Basel II, that the value of securitized mortgages is higher for purposes of capital purposes than the underlying mortgages themselves? Is that a correct statement?

WITNESS GEITHNER: I do not know whether that exact point is correct. But I would say it this way--one of the things that's important to note. Basel II was not in effect for U.S. banks--it's still not in effect for U.S. banks--and it was essentially irrelevant to the cause of the crisis.

All U.S. firms were operating under Basel I design back in 1990 with a set of leverage requirements. And those set of risk weights did not do a good job of capturing a broad set of risks firms were running, and we're involved in a very important process in the United States to try to change those to make them better reflect risk.

COMMISSIONER GRAHAM: Well you've sort of anticipated my question. If that statement that I made--and maybe I had the wrong Basel--is correct, and my colleague thinks it is correct, did this indicate that the international financial community was falling victim to the same mistake that we made, which was to put unwarranted value behind a certain set of instruments largely because they had a high credit rating without any requirement that there be some greater due diligence as to just what was the composition of those structured instruments?

WITNESS GEITHNER: Absolutely. Absolutely. And the system was riddled with that basic vulnerability. Which is, it was too dependent on ratings that were too vulnerable to mistakes. And firms, as a result, held less capital than they should have.

COMMISSIONER GRAHAM: And do you believe that the international financial community is moving to correct those errors?

WITNESS GEITHNER: Absolutely. You know, the way our system works is, we don't turn this over to the international community to solve for us. What we do is we figure out what makes sense to the United States, and then we try to build consensus internationally to pull other firms to that level. But we preserve the authority here to be more conservative to differ if we think we need to do it differently.

You pointed out one example of a set of basic vulnerabilities in that system, but we were fortunate in many ways because we did have a crude leverage ratio in place for banks and bank holding companies. Many countries did not. And as a result, our firms had--and they were forced to run with more capital--they had less leverage, less vulnerable to crisis than was true for many other countries.

And as many people have pointed out, our banks, although they look large because we're a large country, we're much smaller as a share of our economy than was true for all the other major countries. So our banks were, at the peak, even with investment banks now called banks, are about 1 times GDP. The comparable numbers in Switzerland at the peak were almost 8 times GDP. In the UK, almost 5 times GDP. In Continental Europe, 2 to 3 times GDP.

So our banks were less leveraged and the whole system as a whole was much smaller as a share of our economy. It's hard to imagine it because our crisis was very severe, but we were in a much better position to withstand the shock than was true for many other countries.

COMMISSIONER GRAHAM: Those leverage ratios that you just cited, they're so extreme. Does that indicate that a higher proportion of the financial business in a place like Switzerland is run through traditional banks, as opposed to what we're studying these two days, the shadow system?

WITNESS GEITHNER: You're exactly right. Those systems are what we called "universal banking models." And they combine in one entity, legal entity, the whole span of financial activities. And their capital markets, their securities markets, are a less important source of credit than it is in our country.

In our country, still roughly half of credit comes through institutions we call banks, and roughly half of credit comes through the securities markets, both simple bond markets as well as the asset-backed securities markets.

COMMISSIONER GRAHAM: I am almost out of time.

CHAIRMAN ANGELIDES: Would you like a couple of minutes?

COMMISSIONER GRAHAM: If I could get a couple of additional minutes to ask a different question. And that is, you've talked a lot about your efforts in New York, and now here, to look over the horizon and try to have a better idea of what's coming at us.

To what degree will the reforms that you are advocating increase our capability to be more anticipatory and therefore proactive rather than just reactive?

WITNESS GEITHNER: I think they will help. They will help a lot. And of course ideally what you want is a system that is able to move more preemptively, that is more agile, that can stay closer to the frontier of innovation, and we hope to produce that. But there's no guarantee we can. And that's why fundamentally I keep coming back and saying that you need to do your best to design a system that creates that possibility, but you need to prepare for the possibility it won't be perfect and so therefore you want the system to have better cushions against the inevitable uncertainty we all live with.

Because we won't know with confidence where the next shock is going to come from. We just need to make sure it's going to be less damaging when it happens.

COMMISSIONER GRAHAM: Thank you.

CHAIRMAN ANGELIDES: Thank you. Mr. Wallison.

COMMISSIONER WALLISON: Thank you, Mr. Chairman. And thank you, Mr. Secretary, for coming to spend some time with us today. This has been very informative.

I would like to follow up on what my colleague, Douglas Holtz-Eakin was talking about before because I think these are very important questions. And particularly the question of whether you in what you are proposing for a reform is really attempting to solve the right problem. Because I think you would agree that you don't want to solve the wrong problem. And one of the things we are in is trying to figure out what the problem really was. Okay?

Now in the hearings that we have held so far, it seems fairly clear that it did not really matter whether you were a regulated bank, or you were a less regulated investment bank, in terms of what happened to that institution in the financial crisis. Would you agree with that?

WITNESS GEITHNER: No, I wouldn't agree with that. I would say that in a--let's think of it this way.

Say you had a world where you only had two institutions. You had classic banks that take deposits and make loans, and you had banks that, let's call them "banks" for the minute, for the moment, but they're funded very short, no deposit insurance, money can leave in an instant, and they're able to take on more leverage than banks.

COMMISSIONER WALLISON: But their assets are different than banks?

WITNESS GEITHNER: Well, in many--

COMMISSIONER WALLISON: Banks assets tend to be long term, right? And investment banks tend to have very short-term assets, easily sold, in theory?

WITNESS GEITHNER: A little less short than many people thought. A very substantial portion of their assets were quite illiquid in the crisis and they could not sell them, actually, that quickly.

COMMISSIONER WALLISON: Right.

WITNESS GEITHNER: Which is a fundamental difference. And so the level of--I'm not an economist--but the level of maturity transformation, that risk to run, in many of those other institutions was very, very large, I think in many ways as large as banks.

But the difference is that when liquidity dries up in that parallel system, the assets were not liquid enough in a panic to be able to sell them and meet your demand for margin, et cetera, meet your demand for withdrawals. And so that stuff came really crashing down. And that put enormous pressure on the rest.

It was only--if we were dealing only with mistakes banks have always made over centuries, it would have been a much more slow moving crisis, because liquidity would have been more stable, because most of it was deposit-funded, and it would have been a much easier crisis to manage.

It would have been a serious recession still, because of everything else, but it would have been an easier crisis to manage. So I think it was different consequences.

COMMISSIONER WALLISON: Okay. Now I think you raised exactly the point that I was trying to get to, and thank you very much. And the point is:

In 2007, as you recall--you were at the Fed at the time--the mortgage-backed securities market simply came to a halt. A completely unprecedented event. And that meant that these investment banks that you're talking about here turned out to have in effect long-term assets when they were intended to be short-term assets.

So the question really is: Is the right question the investment banks? Or is it what caused the short-term assets they thought they had to become the long-term assets that made them look a little bit like regulated commercial banks?

And so I am going to posit to you the possibility that because of this crash in the mortgage-backed securities market that turned short-term assets into long-term assets, no regulatory system could have survived this.

Because we took about $2 trillion in assets that were on the banks of financial institutions--on the balance sheets of financial institutions all over the world--also particularly in the United States, but all over the world--and we made them illiquid. They couldn't be sold.

Isn't that a major effect that no regulatory system could have anticipated? And shouldn't we be thinking about what caused that to happen? Rather than simply imposing more regulation?

WITNESS GEITHNER: Well I'm not quite sure where you're going with that, but I think that's an interesting question.

I guess, I guess I would try still to look at it this way. If you're going to take on a lot of risk, whether it looks short-term or long-term, whatever it is, whatever you think about your assets, but you know there's risk in those assets, and you're going to fund them with money that can leave in a heartbeat, and you don't hold much capital against the risk of losses in that case, then you're going to have a problem.

And that I believe is a problem that is mitigated if you get capital regulation right over institutions that are in the business of making our markets work and helping companies borrow.

But I completely agree that there are a whole other set of things that happened in our financial markets that made us more vulnerable to the abrupt loss of confidence in anybody holding a security backed by real estate in the United States. Lots of things contributed to that, too, and that made it worse, but--anyway, I'm not sure where you were going.

COMMISSIONER WALLISON: Well all I'm saying is simply this: that is, that we had an abrupt, common shock to the entire system coming from the fact that a very large number, size of assets simply disappeared as saleable assets on the balance sheets of banks, and on the balance sheets of investment banks--

WITNESS GEITHNER: Then maybe--

COMMISSIONER WALLISON: --and that changed the condition of those institutions very materially from a capital and from a liquidity standpoint, and I'd like your reaction to that.

WITNESS GEITHNER: I guess I think that's right, but again that's sort of what happens in any crisis. What happens in any crisis is two propositions are tested.

One is the proposition that your funding is stable. And, you know, a lot of people made a lot of judgments on the expectation that liquidity would be seamless, permanent, uninterrupted, never disappear, it would all be there, and cheap, and available. That assumption is tested in a crisis.

The other assumption tested is you hold a bunch of assets. And you think you know what you might lose in those assets if you have to sell them, or hold them over time and you lost losses. And it usually takes both those mistakes to cause a crisis. And I think we had both of them at the same time, and they were somewhat related, as you said--

COMMISSIONER WALLISON: Yes.

WITNESS GEITHNER: --because people ran because they saw the--or at least they couldn't assess what the risk was in the assets.

COMMISSIONER WALLISON: But what I'm saying is, this wasn't "any crisis." This was a much larger crisis than anything we've experienced before. And I think the reason is that we're talking about an asset size larger than anything we've ever experienced before--about $2 trillion in mortgage-backed securities, and related securities scattered throughout the financial world, and suddenly becoming almost, not worthless, but very difficult to sell except into the most distressful circumstances.

So isn't that a problem? Rather than whether we had sufficient regulation?

WITNESS GEITHNER: No, I don't think so, because again in any--like almost every financial crisis sort of has real estate at the scene of the crime. It doesn't really matter how fancy the products are, what you've called them, CDOs, or asset-backed securities, whatever, the usually have real estate central to the crime. So nothing unique in that.

And again, what we do is we protect ourselves from that risk by making sure that the institutions that are necessary to make markets function, to make economies work, hold enough capital to cover their losses and aren't vulnerable to runs.

And again, I don't think regulation can solve all problems. Regulation can cause lots of damage. Done poorly, it's damaging. Regulation creates incentives for evasion. But capital limit leverage I think has to be the center of any diagnosis of the problem in the reforms.

COMMISSIONER WALLISON: I have a little bit of additional time, so I will go on. That is--

CHAIRMAN ANGELIDES: Three minutes from the Vice Chairman.

COMMISSIONER WALLISON: Three minutes. Here's the issue. You suggest that capital regulation would be a solution to this problem. But if we are talking about a 70-year flood--that is, we haven't had anything like this since the Depression--are you talking about imposing so much in the way of capital requirements on our banking system, on our investment banking system that they will no longer be able to offer reasonably priced credit to those who need it?

WITNESS GEITHNER: No. But you're asking exactly the right question I believe.

Just a short story. When I first came to the New York Fed and I was understanding the system in which banks were operating, I asked my colleagues, I said how do we know what's enough capital? How do we choose what's enough capital?

And my colleagues used the same example you said, which is to say that we think it's enough to cover a 30-year flood, but not a 100-year flood. Governments make a choice about what level of insurance you force firms to run with against what is the probability of a flood.

And I agree that we cannot and should not try to design a system that makes failure impossible, that would cover any--because that would impose excessive costs on businesses and would not be efficient for the country as a whole.

But I can say with a lot of confidence that our requirements were too thin, too modest, and it would be better for credit generally, better for the economy, better for the allocation of capital across time, if those requirements were more conservative. But I completely agree with you, you can't design them and should not try to design them to protect against all sorts of shocks, and we have to have a system that allows for failure.

We just don't want the failure to be as damaging as it was in this crisis.

COMMISSIONER WALLISON: One last question, then. You say in your prepared testimony that the financial system--I think I'm quoting here--"outgrew the protections that were created in the Depression."

Now wouldn't it be fair to say that the system grew outside the banking system not to avoid regulation so to speak, but because banks were in fact unable to participate in the securities market which was a very efficient market for financing business, and financing consumers--this is the securitization market. Banks were really effectively prevented from participating in that, in part because of Glass-Steagall, and I'm not advocating Glass-Steagall certainly, but isn't that why we developed this shadow banking system, if we want to call it that?

WITNESS GEITHNER: The capital requirements had this paradoxical feature. They were strong enough to encourage a lot of that funding to shift outside to where there was no capital regulation, but they were not strong enough to protect the system when that system came crashing down.

But I don't think the premise is quite right in the sense, Mr. Wallison, that banks were allowed to help companies raise debt and equity. And they were allowed to participate actively in these other secured funding markets--for credit card receivables, for automobile receivables--not just real-estate backed, asset-backed. So they were able to fully participate in that system, and a lot of them did of course in ways that left them in the panic you referred to, exposed to loss.

So I don't think I quite agree with that part of your question.

COMMISSIONER WALLISON: That's all the time I have, but thank you very much.

CHAIRMAN ANGELIDES: Mr. Georgiou.

COMMISSIONER GEORGIOU: Mr. Secretary, you said something to the effect that all this stuff started to crash down, and crash down pretty quickly. I guess I would like to explore whether the stuff really deserved to crash down, and was really created in such a way that anybody who was other than right in the center of it and not looking at it ought to have known that it had the strong possibility of crashing down.

Yesterday we had testimony from former SEC Chairman Cox who said something to the effect that if honest lending practices had been followed, much of this crisis quite simply would not have occurred; the nearly complete collapse of lending standards by banks and other mortgage originators led to the creation of so much worthless, or near worthless mortgage paper that as of September 2008 banks had reported over one-half trillion dollars in losses on U.S. subprime mortgages and related exposure.

And the creation of those mortgages was exacerbated by then turning those residential mortgage-backed securities into collateralized debt obligations in a process that at the last hearing I likened to something like medieval alchemy where you took this low-rated tranche, the BBB-rated tranches of the residential mortgage-backed securities--93 percent of the tranches were higher rated. This was the bottom 5 percent of the 7 percent. There was 2 percent of equity below.

Then you took that tranche, low-rated, from a whole bunch of mortgage-backed securities and created something called the collateralized debt obligation, somehow slicing and dicing that and ending up with a security that had not only AAA, but some 50 percent of it was AAA+ rated, which was super-senior tranches, ostensibly.

But of course we now know that all that was essentially fictitious, really, and that when you lost a very modest amount, when these mortgages began not to perform in some modest amount, 3, 5 percent, you impacted all that BBB tranche, and then you essentially rendered the CDOs worthless.

And it was exacerbated--I think it's important to note it was exacerbated by the shadow banking system in a couple of ways. We had another $120 billion of those CDOs that were essentially insured by AIG by selling credit default insurance against it, which they weren't capitalized for, and they were essentially spreading their AAA rating like holy water over these CDOs that didn't deserve to be rated in that way, and another $60 billion was sold to commercial paper conduits.

So you took these fundamentally flawed securitized products and concentrated risk in a number of institutions which ultimately we as taxpayers had to bail out--AIG, Citi, which took a $25 billion liquidity put on these CDOs off their balance sheet, which is essentially a third of their capital, which nobody seemed to have noticed anything about.

And I guess all of this goes to say that we needed to, it seems to me, have people prepared to recognize that the emperor had no clothes; that there needed to have been people who saw that the possibility of this collapse of the securities was much, much higher than anybody gave them credit for. And I wondered if you could speak to that general problem.

WITNESS GEITHNER: I think I agree with much of what you said. And I think you're right that you had a dramatic erosion in underwriting standards. So people lent money against a very large fraction of the value of a house inherently exposed to substantial risk of loss if you had the combination of prices falling a lot and a lot of people losing their jobs.

And that risk was pervasive across the system. It was in--

COMMISSIONER GEORGIOU: They don't even have to fall that much. I mean, they don't have to fall a lot. They can just fall a little bit.

WITNESS GEITHNER: Right. So relatively modest losses would have eaten deeply into those particular tranches of CDOs. I think you're absolutely right in what you described.

But I guess what I would emphasize is that it wasn't just in those complex structures. It was across the system. It was in--I mean, you know, Countrywide would be an example, banks across the country that did lend too much against real estate as a whole.

And it was--it was--

COMMISSIONER GEORGIOU: And they just held the mortgages themselves.

WITNESS GEITHNER: They held some of them, and they--

COMMISSIONER GEORGIOU: Right. But, I agree with you, it wasn't exclusively that, but it was significantly that. And I guess, you know, part of what we've been discussing for the last few days is that a number of the parties who originated these mortgages held--essentially had no consequence if they failed. Not just the mortgages, but the securities themselves.

And I don't know that in this regulatory reform that's going on how much there will be remedial--how many remedial measures will be made to address that question. And would the systemic risk council that you propose, or that people have proposed, be able to identify this kind of problem in the future?

WITNESS GEITHNER: And you are right to say that these reforms won't solve all these problems definitively. We won't know for sure which ones they do an adequate job of solving, but they do do some very important things.

They do get fundamentally at some of the conflicts in rating agencies that helped contribute to the mistakes in ratings. They will force much more disclosure, not just about ratings and their methodologies, but into these basic complex asset-backed securities structures so investors have a better chance of looking deep into them and understanding the risks they're exposed to.

They will force firms that write these commitments to hold more capital against those commitments.

COMMISSIONER GEORGIOU: And to hold some of the securities themselves, if I understand it.

WITNESS GEITHNER: Yes, and to retain an economic interest in those securities. So again, these things are-- we are confident these things would be helpful.

I think you could say they're necessary. But of course over time people will find their way around them. And if you have another period where you create great incentives for people to take great risks, they will do it again.

Our job is to make sure that those mistakes when they happen are not as damaging to the system.

COMMISSIONER GEORGIOU: I guess the other thing that we looked at at the last hearing that I'd just like your comment on was this capital arbitrage where institutions like Citi were putting things either off balance sheet or into different elements, putting it in their trading book, that avoided people recognizing, different regulatory entities recognizing that there was ultimately a risk in this particular instance of liquidity puts to $25 billion, almost a third of their capital, if this one set of CDOs failed.

WITNESS GEITHNER: Well again you're exactly right. The system did not capture the economic exposure many firms had to the funding vehicles they used.

I mean, the crisis began in July 2007 when a French bank that owned a money market fund closed the gates on withdrawals because that fund had funded a bunch of risk in structured investment vehicles, these off balance sheet fancy vehicles, of German banks that had bought a huge amount of U.S. subprime mortgage risk.

So--and without, frankly, the knowledge of the fund or the bank in some basic sense. So, but, you know, it happened across the system. And neither the accounting regime, the disclosure regime, the rating regime, the capital regime, did an adequate job of capturing those risks of exposure. And that is a fixable problem.

It won't get fixed perfectly, and you want to make sure it adapts over time better, but that is a--I think that is a problem that we can do a much better job of preventing in the future by again making sure the accounting conventions capture these exposures.

Disclosure is better. Ratings less vulnerable to conflict. Capital provides bigger cushions against uncertainty and loss. It won't solve all problems, but it's a good place to start.

COMMISSIONER GEORGIOU: Very good. Thank you, very much, Mr. Secretary.

CHAIRMAN ANGELIDES: Right. Mr. Secretary, very quickly I just want to make an observation, picking up really on the comments of Mr. Wallison and Mr. Georgiou about the regulatory framework.

One of the things that struck me when I heard that discussion is so many people who have come before us have talked about how nothing could have been done to avert the crisis, but what's at least clear to me as I read more and more and hear more and more is there's a lot that should never have been done at the outset.

And when you were talking about in this discussion what kind of regulation on securitized products or on capital, is it fair to say that we can't also forget to look at the point of origin of problems?

In other words, there was a situation here, and I'm not saying it was the whole of the problem, but the fact was the poisonous subprime loans were permitted to enter the system in the first place. And then exotic financial instruments were created that helped carry that poison throughout the system.

And so any look back and look forward has to look at the point of entry of the contamination, doesn't it?

WITNESS GEITHNER: I agree. But again I would just underscore this is in the character of saying it's worse than you think. I would just emphasize that if you look at losses on prime mortgage loans, on conforming mortgages in this crisis they are very high, too, well outside the expectations of most people in this case because again house prices fell so far, and unemployment rose so much more than people had expected.

So it was pervasive. And I do not believe you can prevent all financial crises. I do not believe that you can try to run a system that tries to prevent failures. But the job of government is to make sure that you make those failures less damaging; that they don't cause so much collateral damage to the innocent, they don't have such catastrophic consequences for the economy, and I believe we can do a better job. And I think these reforms provide a very good framework for fixing not just the direct cause of this crisis, but making us much less vulnerable in the future.

But crises will happen. Again, what policy should do is make them less damaging.

CHAIRMAN ANGELIDES: I mean the only other observation I would have is, would you agree that the problem in prime mortgages may have been exacerbated by the price run-up, which in part may have been fueled by the availability of no down payment, negative amortization, a whole slew of loan products to a whole set of consumers who otherwise wouldn't have been able to enter that market?

WITNESS GEITHNER: I do agree with that.

CHAIRMAN ANGELIDES: Okay. One other just small item so I don't forget today. And this is just in the way of cleanup. I had earlier asked you about conversations with Mr. Immelt. I want to expand just for a minute.

We had talked briefly about the CPFF. And by the way, I assume you've had a lot of conversations with him because he was on your board. But I know that on October 7th of 2008 you announced the commercial paper program, October 27th you began buying commercial paper. I believe originally there was some talk about that being only asset-backed and not unsecured? I don't know if it was shifted, but--

WITNESS GEITHNER: We started a facility called I think the Asset-Backed--it had some acronym, but it was about asset-backed commercial paper. And then we put in place a broader commercial paper-backed facility.

CHAIRMAN ANGELIDES: But when I asked you about the conversations, I asked about September 29th and 30th, and whether there was concern about being able to issue commercial paper by GE.

I would like to expand that to just ask you, did conversations occur about being able to enter those programs because of a necessity of those programs to support their issuance, or the market as a whole?

WITNESS GEITHNER: Again, to the best of my recollection, Mr. Chairman, those conversations, like I had with a variety of people in the markets both money market funds, institutional investors, and people who were relying on CP markets, they were about making sure we understand how broad the problems were.

And people had lots of ideas about how we should--as they always do--about how we should solve them.

CHAIRMAN ANGELIDES: Well you were going to check. Why don't you--I don't expect you, like I said, to carry your daily planner--

WITNESS GEITHNER: But your question was, were they about both the asset-backed--

CHAIRMAN ANGELIDES: GE's ability to (a) issue in that time period, you know, fear of their own issuance; and (b) their participation in those programs.

WITNESS GEITHNER: Okay. I'm happy to go back and check. But again, my recollection is that absolutely, almost certainly they were about making sure we understood how broad the potential financing stress was. And like we heard from across the system, across the economy, encouragements for us to do something about it.

CHAIRMAN ANGELIDES: All right. Double-check, and if you can swing back.

(Information to be provided.)

CHAIRMAN ANGELIDES: Mr. Hennessey?

COMMISSIONER HENNESSEY: Thank you. And thank you for coming today.

I am a little concerned about one of the biggest challenges we have here, two of the biggest challenges, are the advantage of hindsight, and the danger of selection bias. We now know what happened when policymakers and supervisors did not know what was going to happen.

And as you well know, at any point in time you can find someone who is predicting almost any outcome. And so we have had, you know, people point to specific predictors from the past and say, why weren't those paid attention to.

And with respect to Senator Graham, I want to use an analogy from his home state: I can tell you with certainty that devastating hurricanes will hit Florida. But that is different than suggesting that I should know when a specific hurricane is going to hit Miami. And even if I know that houses are being built that are too big on the shores of Florida, that's different than saying I should have known about this hurricane. Or, as some have been suggesting, that I knew that a particular situation was going to occur, and that someone did nothing about it.

And since you were running the New York Fed, that argument would apply to you. And I don't buy the argument, but I want to ask you about it, with respect to housing, and then with respect to how the housing problems translated into the financial sector.

I think it was generally known for years, if not decades, that U.S. policy subsidizes housing. I know a lot of my economist friends would say "over-subsidizes" housing relative to other forms of capital investment.

I know that I did not know until the Fall of 2007 that there were specific severe problems in an element of the housing finance market.

Can you comment on the argument that policymakers should have seen well before the Summer or Fall of 2007 those housing problems? Do you believe that is a valid argument?

WITNESS GEITHNER: I basically agree with where you begin. And I say--I usually say exactly the same thing to you, which is be wary of the benefits of hindsight. And, and be skeptical of the capacity for foresight. I completely agree with that.

So I can only tell you what I thought at the time. Which is, that I was very worried about the possibility that this whole set of forces you saw in the long period of rising house prices, huge increases in leverage, the growth in these risky funding structures outside the banks, I was very worried that those risks would be substantial for the system. And, that we did not know what the possibility was of a big shock, where it would come from, how it would happen, how damaging it would be. But we thought--I thought there was a risk it would be quite damaging and harder to manage than previous financial crises for the reasons I said before.

But I would not claim, in having said that, that I thought at the time, or I spent time--I went a lot of time with people in these markets of course, and I did not find people at the time who were particularly compelling about exactly putting these things together and seeing how exactly what was happening in no-doc loans, NINJA loans, et cetera, was actually producing huge exposures that looked AAA or super-senior.

So that's a complicated answer to your question. But in general I agree with you that, be wary of the benefits of hindsight. But I think on these basic--the reason I think it's important to come back to the simple risks and leverage is that leverage is hard to capture. But you could observe at that time that there was leverage in the system that made us vulnerable to a shock when it was going to happen. But nobody had the capacity to predict the timing, nature, magnitude of that shock.

And again, the lesson I would take from that is to say that design a system that recognizes that limitation.

Don't design a system that tries to depend on people sitting in these jobs, like you had, or everybody else had, and saying we're going to hope those people in Washington step in preemptively with perfect wisdom in the future and deprive people of taking, borrowing too much.

I think that would not be a good way to run a system. Run a system that rests on--that has some more skepticism in it about the capacity of individuals to act preemptively. And I think that is what these reforms try to do.

COMMISSIONER HENNESSEY: Thank you. The second part of that same sort of question, and I could characterize it as were you generally surprised by the Bear event? And then subsequent events?

And what I mean, more specifically, is by the Fall of 2007 everyone knew that there were severe problems in subprime financing, but then taking that to specific failures of specific institutions, some have been suggesting that you and others should have seen that was going to happen, or some are even implying that people did see that that was going to happen and didn't do something about it.

WITNESS GEITHNER: Well as I tried to explain, we did a lot of things, starting in 2004, which were designed to make the system more resilient and reduce the risk that, whatever happened, it would be less damaging.

And as I said, I think those steps--I think they were--had the right objectives. They were very effective in many areas.

Think, for example, of what happened to how little effect hedge fund failures had on the system as a whole. A lot of examples of things that those results that were helpful for the system.

But absolutely did not do enough soon enough to make the system strong enough to withstand that. But our--for us, in my view, this crisis started in the middle of 2007. And as you know, the Fed moved very aggressively, doing things we had never done before. No road map. Way ahead of other countries, to help to put some foam on the runway and to sort of contain the risks that would escalate and contaminate other institutions.

But ultimately of course you don't solve these problems by simply using liquidity. You have to solve them with more force.

COMMISSIONER HENNESSEY: Good. I want to praise you for the work that you did, and have been doing, on dealing with the resolution issues, having to do with credit derivatives. And I strongly support the arguments you're making about in effect hardening the system so that, even if all of the oversight, and all of the supervision fails, that the system is more robust to withstand that shock.

We heard from Bear. They said, look, we were profitable. We were solvent. Just an irrational run occurred.

After Bear there was the Emergency Liquidity Facility at the Fed which, as I understand it, has since expired. So let's imagine that another profitable, solvent firm faces an irrational run. Isn't there the same risk? Isn't the system not hard enough in that particular area where the same thing could happen?

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

COMMISSIONER HENNESSEY: Thank you.

WITNESS GEITHNER: I would not characterize what happened in that case as a run on a solvent institution. But if we don't reform the system, absolutely we're still living with that vulnerability today.

You know, we're still living with the same system that produced this crisis. And without the full set of protections, preventative and better tools for crises, we'll be living with a more vulnerable system.

Because the actions we were forced to take do add to moral hazard. And again, if you did nothing, you sat here and did nothing, did not pass reforms, the system would be less--more vulnerable, less stable than in the past.

But absolutely, even solvent firms are vulnerable to runs. And you saw a lot of institutions that were very, very strong financially come under extraordinary pressure because the world went into panic.

And again, I think the best defense against that is to make sure that the entire system, firms and these funding markets, derivative markets, et cetera, are run with thicker cushions against loss. That will make everything less fragile when somebody makes huge mistakes.

But also make sure that when things fall apart, when people make mistakes, you can put them out of their misery without the taxpayer being exposed to loss, and you can draw a firebreak around them so that the fire doesn't jump to the rest of the system.

That is the basic, simple theory that underpins these reforms. And I think those are achievable reforms. They won't be designed to prevent people from making mistakes. We just want the mistakes to be less damaging.

COMMISSIONER HENNESSEY: So that's the resolution authority, and then a whole set of requirements to reduce the probability that any one particular firm gets itself into a situation where investors will lose confidence.

WITNESS GEITHNER: Yes.

COMMISSIONER HENNESSEY: But as we saw with Wachovia, and WaMu, even insured institutions can face runs. I presume that even if say the pending legislation becomes law, even if you have the resolution authority and those other strengthening things, you are still at a greater risk for one of these non-insured firms of an irrational liquidity run just because that facility doesn't exist.

You could still have a firm that claims, or believes that it's solvent and profitable saying, look, there's an irrational run; I'm running out of liquidity.

WITNESS GEITHNER: I think that's right. I think the question you have to ask is: Is that desirable? And will that induce more conservative behavior?

You know, in the absence of expectation there's a safety net that should induce caution. Of course it didn't work that way for large parts of the system coming into the crisis.

So again, I think the lesson we try to take is to say there's a function called banking which is about helping companies raise capital, helping people borrow to finance things they need. You want that system to be stable in crises. Otherwise, economies can't function well. And that requires this mix of constraints on risk-taking, and better fire fighting capacities when things fall apart.

And you can't make the system stable if that set of protections only exists on fundamentally half the system.

COMMISSIONER HENNESSEY: Thank you.

CHAIRMAN ANGELIDES: Ms. Murren.

COMMISSIONER MURREN: Thank you.

Thank you, Mr. Secretary, for being here to talk to us about this. I would like to follow up on a nuts-and-bolts question that actually came up in our last hearings, which were on Citi. And we had had the opportunity to question former Chairman Greenspan, and in this instance we were able to take a look at the 2005 Operations Review of the Bank Supervisor Group at the Federal Reserve Bank of New York.

And this one is dated May 9th to May 27th of 2005. I would like to enter that into the record.

This is an internal peer review report, and it is conducted by examiners from other Federal Reserve Banks. And it is my understanding that each Reserve Bank is reviewed every four years.

And, that in this particular report there was commentary made that related to the Citigroup team, that was that the team's time and energy is absorbed by hot topic supervisory issues which include compliance, governance, information requests, and that that keeps the team from fully completing its continuous supervision objectives.

The result is that there are insufficient resources to conduct continuous supervision activities in a consistent manner. And we recommend that management review the sufficiency of staff across the LCVO portfolio.

And then there's also another report, which is the same year I think on the same topic, which is titled "A Draft Closeout Report," which also mentions not having sufficient staff to sustain continuous supervision activities which may result in late reaction to address emerging risk areas.

I am curious about, when you look back on this and, you know, recognizing the benefits of hindsight, do you agree with the findings of this report that there were insufficient resources allocated specifically to Citigroup, and also perhaps to other large, complex banking organizations?

WITNESS GEITHNER: Here's how I think about this. Again, colored a little bit by hindsight.

I was very concerned in looking at our mix of responsibilities in those bank holding companies about the burden imposed by a range of what you might call compliance obligations--consumer protection, CRA, Bank Secrecy Act--very important policy instruments, policy requirements that we were charged with enforcing through regulation, and the burden those imposed relative to the resources we had to also do what you might call a much more difficult task, also an important task, of judging whether a firm had a risk management capacity to manage his risk adequately, whether the safety and soundness obligations we faced were adequately met, whether liquidity was managed carefully enough, et cetera; whether the firm had, for example adequate stress testing regimes to capture what might happen if all those securities it held turned to mud.

And I felt--and again, this lesson helped shape what we've proposed on financial reform, because we've proposed to take the Fed out of the business of consumer protection and have it focus in its supervisory responsibilities on a narrower range of safety and soundness requirements. And I still believe that is right and appropriate, in part because again it helps make sure that these people are focused on a more single mission, which is safety and soundness, which as we've discovered is so important to the system as a whole.

COMMISSIONER MURREN: I guess the question then would also be, have we had an opportunity to be able to address that? Or have you?

If you look, also a similar Operations Review, and this one is dated December of '09, there are still references here to the timeliness of supervisory products being a concern, and that it is in fact a repeat finding from the 2005 Operations Review.

And there are further citations that relate to supervisory ratings not being updated on an ongoing basis to reflect the evolving risk profile and financial condition of the organization.

Do you feel like the responsiveness of the supervisors at the Federal Reserve Bank in New York was swift enough to the circumstances? Do you think they should have been more aggressive in their ratings and their supervision and reporting of this condition of Citigroup?

WITNESS GEITHNER: I believe that these are the most capable, most talented public servants I have ever worked with. But I absolutely agree--and I've said this, and I'll say it many times--that I do not think we did enough as an institution with the authority we had to help contain the risks that ultimately emerged in that institution.

And I think a lot about what we could have done differently in that context. And maybe part of it is about resources, but I think it's a more fundamental problem, which is I think that the system, again we were operating with a set of rules that did not compel firms to hold enough capital against the risks they were taking. They did not capture them. And that is why I believe it is so important in this reform processes that we rely not so much on the discretion of supervisors to force more than the framework forces, try to get the rules better. And so that firms can live with a set of measurable objective rules and you're not forced with the risk that these very capable people, because of other preoccupations, other burdens, were insufficient leverage and traction--you don't want the system to rely on their ability to force firms to be more conservative than the rules require.

You've got to make sure the rules adapt and force more conservatism themselves.

COMMISSIONER MURREN: Do you think that there should have been more examination of the off balance sheet entities of Citigroup, specifically the underlying assets? Is that something you think that would be beneficial as we go forward?

WITNESS GEITHNER: Absolutely. And again, a fundamental lesson of these reforms--and a lot of this has happened with the evolution of accounting already in capital--is that you need to make sure that these either come on balance sheet, or if they're going to stay off balance sheet that you force people to hold capital against the risk in those exposures. Absolutely. A lot of progress has been made in that area.

I would give just one cautionary note, though. Those particular sets of risks themselves did not in the end prove that large, in that particular case. It was--but it was a problem across the system, and it made it much harder for people to really understand what fundamentally might be the ultimate measure of losses in a lot of institutions that took too much risk to the real estate losses they had.

COMMISSIONER MURREN: Thank you. And I think I need to enter these two reports that I cited into the record. Do you need information on that?

CHAIRMAN ANGELIDES: I noted it was the 2005 Operations Report and the 2009 Operations Report. Correct?

COMMISSIONER MURREN: Yes.

CHAIRMAN ANGELIDES: Can I just very quickly, though, we're going to keep you on schedule here. This is remarkable. But I just want to press one last point.

In our interviews with Federal Reserve Bank of New York staff, we were told that they did not look at the credit quality of assets held by any of Citi's off balance sheet entities. And actually in the end, as we understand it, what happened at Citi is they had been reporting a $13 billion subprime exposure. And as you know, in kind of a, I'm sure you're quite aware, in a matter of weeks leading up to Mr. Prince's resignation, that was revised upward to $55 billion.

And they actually took that twenty-five back onto their balance sheet, even though they weren't legally required to as a liquidity put. So I think we could at least say it was material.

The other thing that was pointed out to us is the Examiners at the OCC complained about the provisions of

Gramm-Leach-Bliley, saying that it prevented them from obtaining the information about nonbank affiliates and kept them blind to some of the asset quality problems that eventually came back on the balance sheet.

It sounds to me like there was a little hole here. You had these off balance sheet entities, vehicles, and no one is really looking at them. And so they did pose a risk, or at least certainly a potential risk.

WITNESS GEITHNER: Absolutely they presented a risk, and I didn't mean to claim otherwise. And I agree they were material in the sense of--and, you know, this system, this system of a whole bunch of different regulators looking at pieces of the entity. The Fed is supposed to be looking at the whole thing.

Accounting regime, rating dependence, capital that didn't capture the risk, internal checks and balances that failed to capture those risks, that system absolutely did not work.

CHAIRMAN ANGELIDES: Right. And by the way, I should add, the SEC told us they were aware of those. They really fell, it seems to us, at least my reading of it, into a black hole of sorts.

WITNESS GEITHNER: Right. And I think--

CHAIRMAN ANGELIDES: Or a gray hole.

WITNESS GEITHNER: In many ways, the problem with the hole, or the shadow was that it looked like it was called AAA, or Super Senior, and people didn't say, well, how big a cushion of loss absorption is underpinning that? And so that's why all of a sudden stuff that looked like it was risk free had a lot of embedded losses.

CHAIRMAN ANGELIDES: And of course then there were CDOs composed out of BBB tranches.

With that, I want to thank you--I'll let you close us up--thank you very much, on behalf of all the Commissioners, for coming here today, for your time, for your answers to our questions.

Mr. Vice Chairman?

VICE CHAIRMAN THOMAS: Mr. Secretary, we are going to be sending you a list of causes, those that had been mentioned and those that weren't, and we really appreciate you helping us. But probably more fundamental than that, as one of the major architects of the financial regulatory reform that's currently being examined by Congress, would you provide a 30-second, or a one-minute pep talk to the Commission as we're going forward attempting to find the causes of the financial crisis, while you and others have already decided what it was?

(Laughter.)

VICE CHAIRMAN THOMAS: And you can take a minute.

WITNESS GEITHNER: You are doing such a terrific job--

(Laughter.)

WITNESS GEITHNER: --of exposing the full range of fundamental causes, that you are helping the cause of reform. Because we can match very closely the causes you've exposed with the core of the reforms that the Senate is now considering, and you are giving great energy and urgency to the task.

But don't stop now. Even if the Senate enacts this stuff in the next two weeks, don't stop your exercise, because that's just the first stage. We are still going to have to not just deal with the GSEs and the housing finance markets, we are still going to have to design these set of constraints on capital liquidity, disclosure, et cetera.

We have a huge amount of work ahead of us in that process, and the process that you are undertaking, as well as the other bodies in the Hill and internationally, will be central to that process.

So when Congress, as we hope they will, enacts these reforms, it will be the beginning of the process of reform, not the end. And the work you have ahead of you will be so important to exercise, but--I'm not quite sure you wanted this, Mr. Thomas--but please encourage our leaders in the Senate to act on reform so we can get on with the business--

VICE CHAIRMAN THOMAS: I'm trying to explain to them the institution, and the fact that the committees have jurisdictions which don't necessarily cover everything that needs to be done. And I hope people notice there are deadlines that are created by the leadership in Congress, but the follow-ship sometimes doesn't get there.

WITNESS GEITHNER: I am learning that myself, too. But I think we're close now, and I hope they move quickly.

VICE CHAIRMAN THOMAS: I think we are.

WITNESS GEITHNER: And remember, there will still be an enormous amount of work that we have to shape, and the process of inquiry you've laid out will be enormously important to that work.

VICE CHAIRMAN THOMAS: And final word, we've got to quit talking about it as history. It's here still.

WITNESS GEITHNER: The vulnerability, absolutely. We are living with the system today that caused the worst financial crisis since the Great Depression, and it is worse than that. Because we had to do things no one should ever have to do that create the risk of moral hazard. And if we don't act to fix those problems, we will be more vulnerable.

So my compliments to what you are trying to do, and keep at it. Don't stop just because we're going to get the bill done.

VICE CHAIRMAN THOMAS: That was pretty good.

CHAIRMAN ANGELIDES: Thank you, very much. We got out of that question and answer unscathed, and we will take, Commissioners, a 15-minute break. We will recommence at 2:35, or actually we'll do it at 2:30. We will take a 12-minute break.

Thank you very much, Mr. Secretary.

(Whereupon, at 2:18 p.m., the hearing was recessed, to reconvene at 2:30 p.m., this same day.)

AFTERNOON SESSION

(2:33 p.m.)

CHAIRMAN ANGELIDES: The meeting of the Financial Crisis Inquiry Commission will come back into order.

We are on our final session of day two on our hearing on the shadow banking system. I want to welcome our witnesses who are with us today.

Gentlemen, as you know, we have been undertaking an examination of the growth and development of what has been termed the "shadow banking system," looking at how that system developed, the risks it posed, what happened to that system in 2007-08, and the consequences for our financial system and our economy.

I would like to start off today by asking you all to stand so we can do what we customarily do for every witness who comes before us, and that is to stand and raise your right hand, and I will administer the oath to you as witnesses.

Do you solemnly swear or affirm under the 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. McCULLEY: I do.

MR. NEAL: I do.

MR. BARBER: I do.

MR. MEIER: I do.

(Witnesses sworn.)

CHAIRMAN ANGELIDES: Terrific. We are grateful for the written testimony that you have provided to us, and we are going to ask each of you to give an opening statement of no more than five minutes--both an opportunity for you to speak to us, and for us to hear your views.

And so we will go, without political prejudice, from left to right here, and we will start with you, Mr. McCulley. If you would, start off.

WITNESS McCULLEY: Thank you, Chairman Angelides--

CHAIRMAN ANGELIDES: Okay, and I should add one other things, gentlemen. You will see that there will be a yellow light that comes on with one minute to go, and the red light is when time is up. Thank you, Mr. McCulley.

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

My name is Paul McCulley, and I am a managing director and portfolio manager with PIMCO. On behalf of my colleagues at PIMCO, I thank you for the invitation to appear before this distinguished Commission.

PIMCO is an investment management firm founded in 1971 based in Newport Beach, California. As an investment manager, PIMCO is hired to invest money on behalf of clients in accordance with contractual guidelines they establish with us.

Our objective is to protect and enhance our client's assets, their pensions, savings, and investments, and thereby help them achieve their investment goals over time.

We do not conduct investment banking or proprietary trading activities, and we are not a broker-dealer.

Let me turn now to the substantive issue that you've asked me to speak about today, which is the role of the shadow banking system in the financial crisis of 2007 and 2009.

Let me give you a definition. Shadow banks are levered financial intermediaries engaged in liquidity, maturity, and credit quality transformation but operating without public safety nets. Notably, FDIC insurance and access to the Fed's Discount Window.

Shadow banking, that phrase, is not a pejorative phrase, but merely a descriptive phrase of how the shadow banking system works.

Let me turn now to the fundamental role of banks. Banking is fundamentally defined as the business of transforming savings into investment in our economy while simultaneously acting as the Nation's payment system.

Traditionally we think in terms of this activity in the context of conventional banks, which issue deposits and then turn them into loans. The system therefore necessarily requires faith on the part of depositors that their money is safe.

In the wake of repeated bank runs in the early 20th Century, Congress enacted legislation creating the Federal Reserve in 1913, and the FDIC in 1933. As Professor Gordon observed earlier before this Commission, FDIC insured deposits issued by banks with access to the Fed's Discount Window are informationally insensitive.

That is, holders of such deposits do not have to do any due diligence or gathering of information to feel comfortable holding such deposits because they are viewed by the public as being backed by the full faith and credit of our government.

Since the creation of the Federal Reserve and the FDIC, conventional banking has inherently been a joint venture between the private sector and the public sector.

Deposits are made informationally insensitive to the public by the safety nets from the government, allowing conventional bankers to redeploy those deposits into longer dated, riskier loans and securities earning a net interest profit.

Given the fact that the conventional banking system is indeed a joint venture between the private sector and the public sector, conventional banking has been regulated.

In recent decades, the shadow banking system developed to provide many of the same lending and intermediary functions of conventional banks, also sharing their same profit motive.

Today, many Americans have financed their homes, car loans, and student loans via institutions that are part of the shadow banking system.

One of the distinctions between conventional banks and shadow banks is that, while conventional banks are subject to extensive regulatory framework, shadow banks typically are not.

In order to serve a similar function as conventional banks, shadow banks needed to create an asset that was perceived by the public as just as good as a bank deposit. This in turn meant creating a informationally insensitive asset.

The shadow banking system effectively did that. But, unlike the conventional banking system, the shadow banking system was and is inherently vulnerable to runs if their liabilities suddenly become informationally sensitive.

CHAIRMAN ANGELIDES: How much time do you need to wrap up?

WITNESS McCULLEY: One minute, sir?

CHAIRMAN ANGELIDES: Okay. I will grant one minute, yes.

WITNESS McCULLEY: Indeed, a run on the shadow banking system was, as was discussed throughout these hearings, one of the defining characteristics of the most recent financial crisis.

Short-dated liability holders of the shadow banks discovered that actually the assets they were holding were not just as good as deposits, but were informationally sensitive.

And when they became informationally sensitive, you had a run. Call it the Great Run. Extraordinary actions by government, and governments around the world were required to stop it, as Secretary Geithner explained.

Let me conclude. There are many lessons to be learned from the crisis. For me, the most important is that the shadow banking system is indeed a banking system engaged in the same type of activity as banks.

Thus, I believe that the key guidepost for reform of our financial structure is simple. What an institution does, not what it is called, should determine how it is regulated.

I look forward to your questions, and I thank you.

CHAIRMAN ANGELIDES: Thank you, Mr. McCulley. Mr. Neal?

WITNESS NEAL: Thank you.

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

I appreciate the opportunity to appear before you here today. My name is Mike Neal. I am the Chairman and CEO of G.E. Capital and a Vice Chairman of General Electric Company.

We at G.E. and G.E. Capital hope that our participation on this panel today is helpful as you pursue your important mission of analyzing the causes of the financial crisis.

I grew up in Georgia. I graduated from Georgia Tech and started with G.E. 31 years ago. I actually started out on the industrial side of the company. I moved into financial services back in the mid-1980s, and I've had a series of operating roles since that time. I became President and Chief Operating Officer of G.E. Capital back in the 1990s. I became the CEO of G.E. Commercial Finance in the early 2000s, and then the CEO of G.E. Capital a few years ago.

I am proud to lead a company that has focused on lending to Main Street businesses and consumers. Our lending supports more than 170,000 small businesses in their daily operations.

Our business relationships include household names like Lowe's, GAP, EBay, JC Penny's, Rooms To Go, and Wal-Mart. G.E. Capital is a market leader in mid-market commercial lending, equipment lending, leasing, middle-market corporate finance, aircraft financing, health care financing, franchise financing, fleet leasing, dealer financing, energy financing. If you flew in here today on U.S. Air, you probably flew in on one of our aircraft.

We concentrate on extending straightforward commercial loans and capital to largely middle-market customers. We underwrite these loans to hold, not to sell. We match-fund our debt, a policy that allows us to manage risk associated with the funding for specific assets.

Our leverage is quite low. We did not and do not originate CDOs or SIVs. We did not and do not sell credit default insurance. We did not and do not trade derivatives. And what we do use with derivatives, what some people might call the old-fashioned way, we hedge responsibly against interest rate, exchange rate, and other fluctuations in our liabilities.

Our business is focused on Main Street. And when small business and their customers succeed, so do we.

The turmoil in the markets over the past two-and-a-half years has been unlike anything I have ever experienced during my 30 years at G.E. Many Americans have lost their savings, their jobs, their homes, and confidence in our financial system and its institutions has been shaken.

We think it is good for policymakers to think about regulatory reforms. Yet, even with the market turmoil of the past two-and-a-half years, we have continued to lend to Main Street throughout this period. We will continue to do so.

We extended $96 billion of new credit in the fourth quarter of 2008. As the crisis unfolded, we maintained our focus on lending to Main Street, while strengthening our credit risk management and shrinking our balance sheet.

G.E. Capital was able to meet its short and long term funding needs throughout the financial crisis. G.E. raised more than $15 billion of capital through an equity offering, and managed through the challenges of the past three years without seeking extraordinary assistance through the Federal Government's TARP Capital Purchase Program.

Of course G.E. Capital did participate in CPFF and TLGP Programs, which were very important and meaningful for us. My colleague, Mike Barber, will speak to those programs in just a minute.

G.E. is, first and foremost, an industrial company. G.E. Capital's focus on middle-market commercial lending is consistent with our parent's company focus. We will continue to maintain a straightforward and focused portfolio and emphasize risk management, capital allocation, and cost.

Before, during, and after the crisis, G.E. Capital has avoided riskier structured finance businesses, reduced balance sheet and risk, and strengthened capital ratios, while enhancing its liquidity.

These actions have made us a much stronger company. We have fully appreciated that our middle-market customers are critical to turning around the economy and stand ready to continue working with them in the years ahead.

I hope you will find Mark Barber's discussion of our commercial operations helpful, and I welcome your questions.

CHAIRMAN ANGELIDES: Thank you, Mr. Neal. Mr. Barber?

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

Thank you for the opportunity to appear here today. My name is Mark Barber, and I am Deputy Treasurer of General Electric Company, and G.E. Capital, with responsibility for short-term funding and investment.

I joined G.E. Capital in 1989 as Assistant Treasurer for Short-Term Funding, after 10 years with Ford Motor Company's Financial Services Unit. And during my more than 20 years at G.E., my work has related to the company's short-term funding and investment activities.

I manage G.E. Capital's commercial paper program. It is one of the company's overall funding and liquidity--it is part of the company's overall funding and liquidity operation.

I will provide a brief overview of G.E. Capital's commercial paper funding program and government programs established during the financial crisis.

Unlike many of the structured financial products that have come under scrutiny in the wake of the crisis, unsecured commercial paper is not a new or complicated product. G.E. Capital has issued commercial paper since 1952. Today, G.E. Capital continues to issue commercial paper to meet its liquidity and funding needs. This is a market that is long known for its depth, efficient pricing, informed investors, and transparency.

G.E. Capital, unlike most other commercial paper issuers, prices and sells commercial paper directly to investors without going through dealers. We determine each day how much cash we want to raise based on a number of factors, including the amount of the company's maturing commercial paper, and its current and projected liquidity profile.

We set pricing daily based on our borrowing needs and market factors, and then present to potential investors our pricing scale for newly issued commercial paper.

Our primary commercial paper purchasers are institutional investors, including investment managers, money market mutual funds, state and local governments, corporations, and a variety of other institutions.

G.E. Capital maintains strong relationships with commercial paper investors, many of which have been purchasing commercial paper directly from us for years.

As the credit markets began to experience stress in 2007, G.E. monitored changing market conditions to ensure stable and prudent short-term funding. To this end, G.E. periodically reviewed its key drivers of liquidity, debt issuance and maturities, backup credit lines, asset origination and income, access to securitization and syndication platforms, and other liquidity sources.

In 2008, many financial institutions faced a stagnating debt market, a weakening secondary market, and growing investor concerns over safety and security.

The bankruptcy filing of Lehman Brothers on September 15th placed significant pressure on money market funds, a number of which held Lehman-issued commercial paper.

In particular, the reserve primary fund was forced to write down $785 million in holdings of Lehman-issued commercial paper, and subsequently announced that it had, quote/unquote, "broken the buck" on September 16th.

The fund experienced massive demands for investor liquidations that it could not fully honor. Investors began to question the vulnerability of other prime funds, and as a result began a more widespread withdrawal from prime institutional money market funds.

In October of 2008, the government took steps to restore investor confidence in the short-term funding market. These steps included the creation of the Federal Reserve's Commercial Paper Funding Facility, or the CPFF, and the FDIC's Temporary Liquidity Guarantee Program, or TLGP.

G.E. Capital participated in both the CPFF and the TLGP. G.E. is proud of the way we've managed our business through this crisis. We kept the company safe and secure and, with the support of our investors, continued to fund our operations every day, despite volatile and stressed markets.

We also respect the important role federal officials played to reassure investors and navigate the market uncertainty. Going forward, G.E. Capital will maintain its conservative business model. We all hope never to experience anything like the events of the Fall of 2008 again.

Our continued aim is to maintain and improve shareholder value through smart, safe, and secure lending and funding practices.

I hope my testimony today has been useful to the Commission, and I look forward to answering your questions. Thank you.

CHAIRMAN ANGELIDES: Thank you very much, Mr. Barber. Mr. Meier? MAI-ER or MAY-ER?

WITNESS MEIER: It's "My-er" actually.

CHAIRMAN ANGELIDES: Mr. Meier.

WITNESS MEIER: Thank you.

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

Thank you for the opportunity to appear before you today. My name is Steven Meier. I am the Chief Investment Officer for Global Cash Management at State Street Global Advisors, which is the investment management arm of State Street Corporation.

I have more than 26 years experience in financial services, with a focus on traditional money markets, fixed income, global cash, and financing.

The events of 2007 and 2008 were unprecedented, and their consequences were devastating. Millions of people saw the values of their homes and savings decline, business fail, and our economy entered into a severe recession.

On behalf of State Street, I would like to express our gratitude to the American people and our leaders for their resolve and determination throughout this difficult period in our Nation's history.

Although many are still suffering, the commitment of America's people and institutions has put us on a path to recovery.

My understanding is that the Commission is primarily interested in three short-term lending activities: repurchase agreements, commercial paper, and securities lending. I would be happy to answer questions on each of these topics as appropriate.

It is important with respect to all these instruments that institutions properly assess and manage risk. At State Street Global Advisors we have a dedicated credit team tasked with evaluating counterparty and issuer risk.

This group considers a range of factors in assessing potential client counterparties, and thoroughly investigates the quality of the underlying collateral.

In the commercial paper market, particular emphasis is placed on vetting issuers and examining the liquidity support providers.

This rigorous credit analysis helps protect our clients and allowed State Street Global Advisors to focus on solid investments during difficult market conditions.

None of the money market funds advised by State Street Global Advisors risked breaking the buck, and the other cash products underlying our securities lending program have not experienced material credit losses.

The credit and asset-backed markets, however, have experienced extreme illiquidity and credit spread widening, and the market price for those products have not always reflected the quality of the underlying assets.

Neither State Street nor our cash funds had material exposure to Bear Stearns immediately prior to its sale, and while some of our clients did have collateralized securities lending and repurchase agreement exposure to Lehman Brothers and its affiliates, our clients did not incur any investment losses as a result of such exposure.

I have thought long and hard about the lessons learned from the financial crisis. I would like to highlight three points in particular.

First, credit quality alone may not be sufficient to protect against price degradation when there is limited market liquidity.

Second, the secondary market liquidity mechanism has proven less reliable in a severely distressed market, which has implications for portfolio construction.

And third, I believe the industry has increasingly recognized the need for substantial additional committed resources and infrastructure to manage money market assets.

Let me also say that I do not believe the blame for this crisis can be attributed to any single event, entity, product, or decision. In my view, the financial crisis flowed from a confluence of factors, many of which the Commission is investigating.

In particular, I would point to excessive leverage and inadequate capital requirements which ultimately contributed to a lack of liquidity and frozen credit markets.

Thank you again for the opportunity to be here today. I will be pleased to answer any of the Commission's questions.

CHAIRMAN ANGELIDES: Thank you very much, gentlemen.

So we will now start our questioning. Let me just start with a very few before we go to the Vice Chair, and let me start with you, Mr. McCulley.

I was struck by something in your testimony, both written and verbal, about the vulnerability to the system still today. Let me ask you just the fundamental question, because you really end on the note that institutions ought to be treated and regulated for what they do, not how they're legally defined.

And so does that argue for more sweeping deposit insurance? Or how do you really, truly--how could you have mitigated historically, or today, the possibility of a run?

WITNESS McCULLEY: As Secretary Geithner was testifying earlier, there were large nonbank levered institutions that were systemically important but weren't regulated at the consolidated level with respect to capital, or liquidity buffers, or activities that they could engage in.

They escaped, if you will, the regulatory umbrella of the conventional banking system. And the crisis, the run, originated in the shadow banking system and moved over into the conventional banking system.

And as the case with Lehman's failure, we could not have a orderly bankruptcy because we did not have a resolution authority to unwind that firm in a orderly way. And we found out that a disorderly bankruptcy created huge collateral damage, not just for the financial system, but for the real economy.

And, quite frankly, we still don't have such a resolution authority. So my most important message with respect to your question is that we need the ability in our country to have orderly failure, because disorderly failure of a systemically important institution is simply too painful for our economy.

CHAIRMAN ANGELIDES: Would the presence of a resolution authority in and of itself have mitigated the possibilities of runs on Bear and on Lehman and on other nonbank institutions?

WITNESS McCULLEY: By itself I don't think that resolution authority is the solution. I think we need a whole mosaic of regulatory arrangements to make our system less vulnerable to runs.

And I would point out that runs happen on institutions, and then spread throughout the system, because you have important institutions that have inadequate capital, and perhaps dodgy assets, and when that is recognized by the investment public they naturally withdraw.

So actually having bigger buffers of capital in Systemically important institutions, regardless of what their legal structure is, I think is an important safeguard. People do not initiate a run on a bank that is sound.

Now after you get a run, you can see a cascading effect. But the original run involves fundamental problems with an institution.

CHAIRMAN ANGELIDES: All right. In March of 2008, in one of Mr. Thomas's and my home state papers, actually the hometown paper of Ms. Born, the San Francisco Chronicle, you said, quote, "People had levered half the distance to the moon in dodgy assets."

So I guess this is a way of saying you thought they were over-levered and in very risky assets. But let me ask you a question. At what point was there knowledge by repo lenders, at what point did that become relevant to repo lenders?

Take me through late 2007-2008 and the recognition by repo lenders, other short-term lenders, as to this fundamental problem. Why wasn't that evident before that time?

WITNESS McCULLEY: I think it was evident. And it became quite evident in the summer of 2007 when you saw the funding for the shadow banking system become more dear and less available. And actually it was in the asset-backed commercial paper market before it was demonstrated in the repo market.

And if you had to pick a day when I think the recognition really hit, was August 9th of 2007 when Bank Paribas froze redemption in three of its off-balance sheet vehicles. And that was the ringing of the bell I think to the short-term funding markets that the assets that they were owning, whether it's asset-backed commercial paper or repo, had become informationally sensitive. And when it comes informationally sensitive, you will have a pulling back.

So actually for us involved in the market, and I think for the market at large, you really have to go back to the summer of 2007.

CHAIRMAN ANGELIDES: But it was event driven, but up until that time you relied on--the information you relied on was, what, credit ratings, an assumption that the collateral was sufficient, that there weren't underlying problems in the collateral itself?

WITNESS McCULLEY: I think as a general--

CHAIRMAN ANGELIDES: Really, kind of going to your, the lender's level of due diligence?

WITNESS McCULLEY: I think that's a very important point.

CHAIRMAN ANGELIDES: Because actually, let me just add something else you said because I think it's important. You actually spoke about how the later stages of the bubble were driven by mortgage originators: They originate to distribute outfits who were turning underwriting standards into a very, very sad joke. That was the marginal source of finance for the marginal buyer-speculator.

You then go on to say: Getting a handle on this phenomenon, which clearly the Fed did not, required more than macro data. It required good, old-fashioned shoe leather research.

So I would ask, of the funders as they saw what was entering the system, the collateral that was backing the asset-backed commercial paper, the nature of the assets in the institutions who were doing the loan, kind of what level of due diligence, what level of recognition did you have before August 9, 2007?

WITNESS McCULLEY: Clearly the industry at large was not doing adequate due diligence, and was outsourcing it, if you will, way too much to the rating agencies, and also to the conventions of the tri-party repo system where your lesser quality assets were repoed.

From the standpoint of what we were doing at PIMCO, and this was long before 2007, we have never used asset-backed commercial paper in our routine liquidity management. We simply haven't used the product.

We were unique I think in the industry of not using asset-backed commercial paper--

CHAIRMAN ANGELIDES: Because you felt you couldn't understand it? You didn't really know what was behind it?

WITNESS McCULLEY: The key reason is that asset-backed commercial paper was issued by off--in the main, by off-balance sheet vehicles, conduits, and SIVs. And if I couldn't do the due diligence on what the SIV was holding on the asset side, then I did not want on behalf of our clients to own the liabilities.

I did not want to own the liability of what I did not know on the other side, so we didn't. I would also note that we at PIMCO were not participants in the tri-party repo market where the lesser quality assets were funded by the shadow banking system.

We were engaged in the bilateral repo market on Treasury and agency collateral. So when I look back at how we ran our business for our clients, we simply were not involved in those two arenas.

CHAIRMAN ANGELIDES: All right.

Mr. Neal, just as a follow up, did you hear the prior session with Mr. Geithner at all?

WITNESS NEAL: Just small pieces of it.

VICE CHAIRMAN THOMAS: Microphone on.

CHAIRMAN ANGELIDES: Yes, microphone.

WITNESS NEAL: Sorry.

CHAIRMAN ANGELIDES: Well I had asked him, and you might shed light on this, I had asked him--because one of the things I know that our staff talked to the G.E. folks about is your continued ability to issue commercial paper even during the depths and the difficulty of the crisis, and apparently we've received information that shows you continued to do it all the way through as, I believe, with fairly consistent spreads below LIBOR. I was looking at our Director, who did not knowledge me--

(Laughter.)

CHAIRMAN ANGELIDES: But is that an accurate statement?

STAFF DIRECTOR: Yes.

CHAIRMAN ANGELIDES: Yes. Even though she didn't acknowledge me, she did hear me. But I was curious about a couple of things. I asked Mr. Geithner about, you know, some critical days: September 29th, September 30th, when that's in the wake of the official announcement by AIG that it had signed a definitive agreement to obtain an $85 billion line of credit. It's over the weekend when Goldman and Morgan Stanley become bank holding companies.

On Monday, September 29th, the Dow dropped 777 points after the House of Representatives voted down the financial bailout bill.

So this is a pretty critical time. And what I was trying to get a handle on is, in those conversations, or other conversations, was G.E. expressing a deep concern about your ability to continue to issue commercial paper?

So that was one set of questions. Mr. Neal? Mr.

Barber? Either one of you?

WITNESS NEAL: I'll start with that, if that's okay. In the early days--well, early days, late summer--you know, we actually benefitted I think from a flight to quality in some cases in our CP program.

Now we're not naive to what was going on in the market, particularly as you moved more into September, but we were able to sell our quota every day, what we were trying to raise. I think you've seen the data on that.

The markets were choppy. We were concerned about the markets and the direction of the markets and where they might ultimately end up. But having said that, we were doing okay.

I would say it got more difficult after the reserve fund, after Lehman. Having said that, we were still issuing, and issuing successfully, through that period.

I think a lot is to the strength of G.E., a AAA-rated player, at least at that time. We were downgraded in the first quarter, but I would answer your question that way.

CHAIRMAN ANGELIDES: Yes, but to get to the extent of the crisis, did G.E., Mr. Immelt, yourself, other representatives, urge for example the Federal Reserve to initiate the CPFF program and other support programs because you were concerned about the ability to continue to issue?

WITNESS NEAL: We had a number of people--and Mark might be better to talk to that than me--that were in contact with different members of government. I never had a conversation with Mr. Geithner, or Secretary Paulson, about something like that.

WITNESS BARBER: Mr. Chairman, just to echo Mr. Neal's comments, in the period up to Lehman Brothers we were funding normally in the markets and benefitting from, through in fact the asset-backed commercial paper challenges that Mr. McCulley has described, a bit of a flight to quality, as investors pulled back from some of those structures and came to recognize names like G.E.

And after Lehman Brothers and the Reserve Fund, it is true that we had regular dialogue with the Federal Reserve Bank of New York, their team there, that had I think a meaningful outreach process to many members of the market, many issuers and investors on both sides. Their job was to find out what was going on and how the markets were performing. And we of course shared our experience with them as we went through that crisis. So there was regular dialogue.

And through there, they were aware of the withdrawal of liquidity from some of the funds and the challenges it would have created across the whole market. And we simply shared with them our experience in issuing every day.

CHAIRMAN ANGELIDES: One more question on this line, and then I want to stop and move on. You were pretty big participants in both the TLGB program, which was the FDIC backstop long term debt. I think you borrowed I think at one point about eighty? Does that sound about right? $80 billion?

WITNESS BARBER: Yes.

CHAIRMAN ANGELIDES: I think you've paid it down, though. You still have about $59 billion outstanding. $21 billion has been repaid. You were a big participant in the CPFF program, even though I believe you are no longer in that program? Is that accurate, or not?

WITNESS BARBER: That is correct, sir. The program is shut down, and you may know that the program took in three-month commercial paper, issued into it, and whatever we put into the program we paid down on our first roll, as the market began to heal and to improve.

CHAIRMAN ANGELIDES: So I guess my only question is: Did you participate in those programs because you needed to, or because they offered favorable pricing that allowed you to be competitive with others in the market?

WITNESS BARBER: Sure. I'm glad you asked the question. What I would say to you is that in the period after the reserve fund, G.E. Capital honored requests for liquidity from many of our investors who needed to move to cash.

And in the two or three week period following that, those requests were significant and we did our best to provide that liquidity to the market. In fact, that was the basis for our communication to our investors, and publicly, when we announced that we were going to apply for the CPFF, that we would use this as a process to provide liquidity.

CHAIRMAN ANGELIDES: To meet your own liquidity needs, which were a function of--

WITNESS BARBER: --investors liquidity, very much like what the asset-backed commercial paper program was doing for the Fed. So funding ourselves through, and helpful to investors in providing liquidity to them, and it was very useful that way.

But after the first issuance into it, we matured out everything and ended in probably February I think it was.

CHAIRMAN ANGELIDES: All right. Thank you, very much. Mr. Thomas?

VICE CHAIRMAN THOMAS: I am interested in a couple of different directions, and I am pleased to have you in front of us.

One, because although it's partially useful, pathology isn't all that much fun in talking to folks that used to be there. You have come out the other end and you're still here.

So you might have a slightly different look at tomorrow than you had yesterday, based upon having survived.

I am trying to understand--let me ask it this way, and I am really just asking any of you who want to respond, to respond.

You're sitting at the table. You are in some kind of a general category like shadow banking, or non-traditional banking, however you want to phrase it. Do you folks look at each other as competitors? What's the business relationship that you feel toward each other? Does that make sense? Are you in such discrete areas of involvement that none of you are in direct competition? Do you seek out a niche that doesn't put you in direct competition with others, not withstanding the fact you're supplying a service and you're using a similar financing mechanism which isn't in the traditional system?

WITNESS MEIER: Mr. Vice Chairman, if I can address that, I would say that we are also a fiduciary and an investment manager. We don't take proprietary risks. So in that respect, we are a competitor of PIMCO.

We also have significant business dealings with PIMCO at the State Street Corporation level, as providing clearing and custody operations for them.

I should also mention that we are a significant--

VICE CHAIRMAN THOMAS: Are you trying to put them out of business by being better at what you do?

WITNESS MEIER: They're very good at what they do, but I think we're very formidable as well. So I think it's more of a friendly competitive rivalry.

In terms of our relationship with G.E. and G.E. Capital Corp. in particular, we are a significant investor of their assets, both commercial paper and medium-term notes.

VICE CHAIRMAN THOMAS: One of the things that amazes me is that this particular niche isn't a niche anymore. And that you grew to equal the commercial banking side in volume, living off of finding your daily bread every day, versus the more traditional model.

I'm trying to determine whether you feel in the way in which you get your assets a certain camaraderie, commonness of function, that you now look at the person next to you slightly differently than you did a couple of years ago in terms of whether or not you can sustain the model that you have, what you've been through?

I really do--and I'll make it specific to you, Mr. McCulley--I really do believe there can be runs on banks that are sound. Because it would be based on inaccuracies, rumors that have no truth to them, but that doesn't mean that you can't produce a run. And that was one of the reasons they created that backstop of FDIC and the rest to give a comfort level, and obviously that isn't available to you.

Do you believe that you can do a better job on the margins on return on capital than the commercial banks?

WITNESS McCULLEY: First and foremost, PIMCO is not a shadow bank.

VICE CHAIRMAN THOMAS: No, I understand.

WITNESS McCULLEY: PIMCO is an investment manager.

VICE CHAIRMAN THOMAS: None of you are the "bank" part of the "shadow banking." And I don't want to dwell on the specificity of the definition. I'm trying to take a group of people who stay alive in a particular type of market.

WITNESS McCULLEY: I think all of us as participants in the money markets have deeper appreciation than we had a few years ago at just how vulnerable the system can be to a loss of confidence.

And I think collectively in our industry that we recognize the need for levered institutions that don't have access to our lender of last resort, or deposit insurance, to have robust capital buffers, as well as liquidity buffers such as backup lines of credit with conventional banks.

From the standpoint--

VICE CHAIRMAN THOMAS: And we also don't want any dodgy assets.

WITNESS McCULLEY: Well, and--

VICE CHAIRMAN THOMAS: So would you define for me how you avoid dodgy assets?

WITNESS McCULLEY: First and foremost is, as an investment manager you do your homework. You have a fiduciary duty to your clients to invest in quality assets.

VICE CHAIRMAN THOMAS: So I have nothing but AAA.

WITNESS McCULLEY: No, that's not necessarily the case. Doing your homework is not outsourcing your credit research to the rating agencies, but actually doing it yourself. It's due diligence on companies, due diligence on industries, and actually, if I might, I will tell you something that we did at PIMCO back in 2005 and 2006.

We started in '05 when we believed that there were serious signs of bubbles in the property market. We sent out credit analyst to 20 different cities to do some old-fashioned shoe leather research. Literally, 20 cities around the country, getting on the ground, speaking with real estate brokers, mortgage brokers, and players in the real estate market in each local area in order to determine just what was going on in the markets, including this degradation, the outright degradation of underwriting standards.

So we literally got on the ground and observed it. And when our group came back, they reported what they saw and we adjusted our risk accordingly.

VICE CHAIRMAN THOMAS: So you got out of the mortgage--

WITNESS McCULLEY: We severely limited our participation in the private-label mortgage securitization.

VICE CHAIRMAN THOMAS: Well especially if you're in Orange County and you could observe not only your neighbors but yourself in terms of what happened in the real estate market.

In terms of G.E.'s role, size, perspective, did you ever think what happened could happen? I mean, there was always a possibility, wasn't there, that what you thought were assets that you had to rely on for your daily bread in turning them over that somebody might just say no? And of course if they never had, you don't anticipate that, right?

WITNESS NEAL: I think, you know, from my perspective I never anticipated that things could be as bad--it hadn't happened in my lifetime--as we saw in the Fall and Winter of 2008, principally from a funding standpoint.

Our assets have actually held up pretty well through the recession. Just under--just to make a point, G.E. Capital is different than State Street and PIMCO. What we do is we have 8000 sales people that call on CFOs, and we originate, we finance, we lease, it's what we do.

People like PIMCO and State Street support us by, you know, working with us on the debt side.

VICE CHAIRMAN THOMAS: And you have a foot through the door because of the first two letters of your name.

WITNESS NEAL: We are highly rated. And we are highly profitable. We have run what we think is a pretty wonderful business for a long period of time, and so we are attractive.

I think, as I mentioned earlier, there was a flight to quality, at least for awhile, with us through that. But the--

VICE CHAIRMAN THOMAS: So you had no worries at all during this period?

WITNESS NEAL: Oh, tons of worries. Every, you know, our customers--

VICE CHAIRMAN THOMAS: What was number one?

WITNESS NEAL: Just where were things going. You know, for me, I start with Bear, go through the GSEs, Ed, Lehman, watch the buck doesn't get broken. It's only happened twice, very often. The investment banks become bank holding companies. WaMu, the run on Wachovia.

VICE CHAIRMAN THOMAS: You used to know what quality was and you couldn't quite define it anymore?

WITNESS NEAL: It was just a remarkable time, from that standpoint. So you wonder. You worry about everything, just like I'm sure all of you did during that period of time. And, you know, what's the ultimate impact on the economy? What's the ultimate impact on our business?

So we became I think both prudent and conservative as we worked to manage our way through that successfully. But we were concerned. I was concerned. But we were successful as we went through that in funding ourselves.

VICE CHAIRMAN THOMAS: Do you still think there's a clear separation between the two financial structures? I mean, as people talked about moving toward the Gramm-Leach-Bliley removal of Glass-Steagall, that commercial banks were moving more in the direction of your profile, it sounds to me like you want to move more in the direction of some kind of a support window that would allow you in difficult times, if you followed certain rules. What comes out the other side, from your perspective, that either advantages you or disadvantages you in terms of your current business model?

WITNESS NEAL: I would say that what we do, commercial banks typically don't do a lot of. We just have a different business model. We tend to be in middle market, and smaller businesses. We finance--we're a collateral lender, in many ways.

When you think of commercial banks and Glass-Steagall, that was more of a move into investment banking, trading, proprietary trading. These are things that we don't do.

I think the way to think about G.E. Capital is just as an old-fashioned finance company. We happen to be a big one. And we happen to be pretty successful. We're global at it, and the business has been a strong contributor to G.E.'s profits for quite a long period of time.

But that's the niche that we're in. We've become what we think are experts on collateral classes, on customer groups; whether that's franchise financing. If you drove through D.C., a lot of the franchises you see, we may be the finance company in that; aircraft, we're the biggest in that; trucking. It's just things that banks don't do a lot of.

VICE CHAIRMAN THOMAS: Yes, diesel engines on railroads, and that sort of thing?

WITNESS NEAL: That sort of thing, yes.

VICE CHAIRMAN THOMAS: Mr. Meier, looking at what the legislation is and where it looks like it's going, what do you see that you'll have to change in terms of your business model?

WITNESS MEIER: In terms of our business model I'm concerned about the impact of legislation on the availability of credit to consumers. Also I'm concerned about the impact on our growth potential as a Nation, in terms of slowing down that ability to lend.

I think when you look at our business--

VICE CHAIRMAN THOMAS: Well, but if you saw what happened when we didn't slow down the lending, that ought to at least temper you a little bit, shouldn't it?

WITNESS MEIER: Perhaps, Mr. Vice Chairman, but--

VICE CHAIRMAN THOMAS: It's tough to get out of the hole we're in.

WITNESS MEIER: Yes. I think when you look at our business and our assets and our management and the types of assets we buy, potentially it may temper your view in terms of the nature of the problem.

For example, as this point we've got about $575 billion in assets under our management at our peak, well over $700 billion in cash. At our peak, over 80 percent of those assets were invested in regulated banks.

We are a big buyer of time deposits, certificates of deposit, commercial paper holdings; ninety percent plus are dominated by bank holding company issuance.

Our repurchase agreement counterparties, now if you include Goldman Sachs and Morgan Stanley, is 100 percent financing for banks. The asset-backed commercial paper conduits that we purchase are typically issued by banks.

We don't simply look at the assets, although we do do due diligence. We know the sponsors, the entity. But we also look through to the liquidity support providers. And we wouldn't buy any asset-backed commercial paper conduit unless we're 100 percent sure that they are fully supported by a bank institution.

So the shadow banking system has got various definitions, but from our perspective, Mr. Vice Chairman, we agree that we prefer, given the risk tolerance of our clients, to invest in highly regulated entities such as banks.

VICE CHAIRMAN THOMAS: Thank you, Mr. Chairman, my time is up and I want to hear from others, but I just want to reference the discussion about where we are.

Today the Dow went down 998 and a half points earlier. It has recovered up to about -465. And that's the world we are still in, obviously with worry about Greece.

Thank you, Mr. Chairman.

CHAIRMAN ANGELIDES: Just before we go to Ms. Born, a very quick question for Mr. Neal and Mr. Barber.

Just a quick reaction. You are in the old-fashioned finance business. You actually lend to businesses that are creating products, employment. Just any visceral reaction to--I assume you don't have on your books, you don't carry as assets subprime CDOs, CDO-squared, other structure products?

WITNESS NEAL: No. No, we don't.

CHAIRMAN ANGELIDES: Any judgment on their utility to the financial system and larger economy, synthetic CDOs, CDO-squared?

WITNESS NEAL: "Synthetic" is a bad word, I think, Mr. Chairman. But, no, we don't do that.

CHAIRMAN ANGELIDES: Synthetic is a bad word, or the devices are not particularly good?

WITNESS NEAL: I think, you know, I run a finance company. We are just not in those businesses. I think there certainly are products like that that I think weren't understood well in some cases, maybe not rated well in some cases. But it's not a line of business that we're in. We've been quite disciplined about that.

We do a number of things, but in most cases it's financing, leasing, lending, and middle to small--now we do it in 50 countries around the world, but we stayed to that. We don't have a broker-dealer. We're not a--we don't originate to sell. We originate for our own balance sheet. And that's a business that we've grown quite a bit over the last 30 years, and it's attractive.

Now we went through a tough cycle, as did everybody else, in the last two years. But we are coming out of it now. I would say the good news is things are better, at least in terms of our operations. So we do feel better about it. But I'm not an expert on those products.

CHAIRMAN ANGELIDES: Ms. Born.

COMMISSIONER BORN: Thank you, very much.

And thank you all for being willing to appear before us and help us with our investigation. I think my first questions I want to direct to Mr. Neal and Mr. Barber about G.E. Capital, which I do consider to be part of the shadow banking system, although not part of the investment banking system. Because I think you do borrow money, and lend it the way banks do, but you're on a different model than the investment banks. You're not regulated as a commercial bank, although I understand you do have a thrift subsidiary in your affiliates.

I understand that you are the biggest, the world's biggest issuer of commercial paper? Is that right?

WITNESS BARBER: We, worldwide, are the largest issuer of commercial paper. In the United States we are probably in the top five, but I don't believe we're the largest issuer now. But we are a large issuer, yes, ma'am.

COMMISSIONER BORN: Well let me ask you about what kind of problems were experienced in the commercial paper market during 2008, for example, as first of all Bear Stearns failed and was acquired by JPMorgan, and then later in September we had Lehman Brothers and the GSEs and AIG get into trouble.

I noticed, I'm sure there was a lot of turmoil in the markets during that period of time. Mr. Barber, would you like to respond to that?

WITNESS BARBER: Sure. Commissioner, you've referenced an extended period of time. The period of 2007 when I think the marketplace, particularly asset-backed commercial paper began to experience some challenges, as I mentioned earlier we, as we have at different points, stress in the money market in past years actually benefitted a little bit as our investor base for G.E. and G.E. Capital Paper, we had a little bit of a flight to quality back to us; investors that may not have worked with us for awhile came back.

So we saw continued good demand. And I would also quickly add that we're an issuer of commercial paper in the U.S., and also in other markets around the world. So similar experience there.

And one of the advantages that we had, which I mentioned in my opening remarks, is that we deal directly with end investors. So we don't work through an intermediary. The relationship we have with the portfolio managers and the credit teams, and the leadership teams at organizations like State Street Global Advisors, and PIMCO, and many others, really helps us better understand the portfolio strategies and plans that they have.

They have their views on G.E. and G.E. Capital, and it's our opportunity to express to them our company's performance, our funding plans, our liquidity models. So that direct relationship is very important to us. It's part of our DNA, and it is one of the things that really helped us through the entire period that you're talking about.

I think that in the period following--in the commercial paper market--following the events that we've talked about, Lehman, and Reserve, and so forth, you began to see some conditions that we had never seen before.

And in the range of 45 percent of our funding would have come at that point in time from the money market fund industry, which tells you that we also had 55 percent or so of our funding that came from sources different from those.

So well diversified investor base. But when you began to see withdrawals of liquidity from some of the portfolios, their natural reaction would have been to protect their cash, to hold cash, and therefore reduce demand for longer dated paper.

One of the important metrics that we have around G.E. Capital's program is that we keep what we think is a fairly long and modest average remaining term on the program. It means it's well extended. It's well placed out in the longer maturity ranges. And the money market funds and other invest--

COMMISSIONER BORN: What would the longer maturity ranges be? What's your average range?

WITNESS BARBER: You may know that commercial paper can be issued, a 3A paper at least can be issued all the way out to nine months.

COMMISSIONER BORN: Right.

WITNESS BARBER: And our average remaining term at that period of time was somewhere in the 55 to 60 day range, maybe a little bit more, which I think, I don't know for sure, is generally on the longer end of how paper programs are managed.

So we had what we thought was a long and conservative goal in the reality with our program. And so when we went into that period, we saw less demand for long-term paper, but we still found many buyers. Again, this was not just money funds that we'd sell to.

And as I mentioned also, we saw requests for redemption of our paper early to meet liquidity demands, which we did our best to honor.

So communication with our investors about their plans and what they were seeing, opportunity to talk with them about our own funding and liquidity plans and the success we were having in marketing our own debt, and just understanding where the liquidity pressures were coming. All that helped us really navigate through the period.

It was very important, we thought, that some of the actions that the government was taking to support liquidity in not just our market but others, that those steps were helpful in terms of bringing liquidity and stability back to markets that had never seen anything like this.

So I think the steps that they took--"they" meaning the Fed and the CPFF, the asset-backed support program which of course we weren't a part of but accomplished pretty much the same thing, then ultimately the TLGP were very, very useful.

COMMISSIONER BORN: And I suppose the support to the money market funds had an impact, as well?

WITNESS BARBER: I forgot that. I think probably my colleagues to the left and right can speak more to that than I can, but I think you're correct.

COMMISSIONER BORN: Right. So since you weren't in the asset-backed commercial paper market, you did not feel that contraction that occurred in 2007 with respect to that market?

WITNESS BARBER: We didn't feel that contraction there. I would quickly add that we do have a small asset-backed commercial paper program called Edison Asset Securitization, which we're no longer originating assets in there, so it's in a declining mode. It's a very small program. So we didn't see any pressure there.

COMMISSIONER BORN: You did reduce I think your issuance of commercial paper by 2009, compared to 2007, for example. The statistics I have, and I'm not vouching for their accuracy, was you had about $106 billion of commercial paper outstanding in 2007. And it was down to about $50 billion in 2009. Is that right?

WITNESS BARBER: Your numbers are very close, yes.

COMMISSIONER BORN: So you brought it down during that period by about half. And I wondered why that happened? Was it because of market conditions? Because you didn't have the need for that much funding because you were contracting your operations? Why was that?

WITNESS BARBER: Sure. As a member of the corporate treasury team supporting the assets that are underwritten that Mike has described to you, we are always evaluating conditions in the marketplace to know how we can support those assets, the pricing of our debt, the strengths of the market.

So in that evaluation, as we were going through the September and October period, a decision was made that it would be prudent for us to reduce our reliance on the commercial paper market, and we did.

We communicated that to the marketplace. We took action to produce the numbers along the lines that you're speaking of. And today, commercial paper as a percentage of our total debt is a little less than 10 percent, about 9.1 percent of total debt, which we think is very conservative and well managed, manageable. And that number is about $46 billion today, worldwide; 80 percent of it in the United States, the other 20 percent in markets outside the U.S. So significantly less reliance on commercial paper.

COMMISSIONER BORN: I assume that you both feel that you have survived this crisis rather better than, for example, the big investment bank holding companies did, which either had to become bank holding companies or were acquired or went bankrupt.

What do you attribute that to, Mr. Neal?

WITNESS NEAL: Well I would say some of it is just our model.

COMMISSIONER BORN: What aspects of your model have protected you from this turmoil?

WITNESS NEAL: I would say we originate assets to hold. We only originate assets to hold. And what I mean by that is, if we did a transaction that was for 10 years, we look at the risk in it as a 10-year risk.

Others, particularly in this period of time when originate-to-sell or distribute became such a popular line of business, your risk, the way you think about it is very different. You may have it in your warehouse for 60 days. And so the underwriting becomes: Can I sell it? Not will I hold it to maturity.

And because of that, our portfolio, our losses, which we're not immune to this cycle, but our losses have performed well below the Fed cases. And so the business itself is less impacted because of that.

I would say another thing is that we, again we match-fund everything. And when we borrow, if we have a transaction in Australia and we can't raise Aussi dollar, we might raise that here and then swap into that If we have a five-year transaction and five-year money is not the right way to raise capital that day, we may raise something else, but we swap into that.

We do not--we do everything we can to only take credit risk in these transactions that we have. So I think that's a piece of it.

We were AAA. We were downgraded to AA, but stable. Everybody--there's no one left. I mean, the whole industry was in the first quarter of last year, but we were able to get through this.

I think G.E. is an enormous source of strength for us. When things got difficult, when we got concerned with these markets, we cut our dividend. This is the dividend from G.E. Capital back to G.E. It was 40 percent. We brought it down to 10. We eventually brought it down to zero just to keep capital in the company.

We adopted a program which we called "Safe and Secure" at that moment in time. G.E. raised equity and put equity into G.E. Capital--not the government, G.E. did that. So a huge source of strength for our company in that regard.

We became very conservative at that period of time. We took our commercial paper down. Today in the mid-40. It's less than 10 percent of our stack. We raised cash. Today we have over $60 billion in cash on the balance sheet. We have $52 billion in backup bank lines. So today we have 2-1/2 times coverage on the CP program. It's expensive, but it is very safe, from that standpoint.

So when we saw what was coming--and of course the company itself, the stock took a beating during this period of time, although it's coming back nicely now; but we adopted, we thought, the right strategy with our investors to make the company very safe, and we have.

COMMISSIONER BORN: So part of it was a different business model than the investment banks. For example, in terms of both the kind of assets you had, the fact that you were lending to hold and not to sell; your ability to call on your parent and its rating for equity suffusions, or other kinds of support.

I wanted to ask you about the thrift and the kind of supervision that is being given by the Office of Thrift Supervision, which I understand became G.E.'s consolidated supervisor under the requirements, so that you would meet the requirements of the EU which requires that in order to do business in the EU any financial institution has to have a consolidated supervision in its home country, or become subject to EU regulation.

WITNESS NEAL: Um-hmm.

COMMISSIONER BORN: Does the Office of Thrift Supervision impose capital requirements, and liquidity requirements on G.E. as a whole, the entire holding company? Or is it just imposing those on the thrift? Or something in between? Some of the affiliated companies and not others?

WITNESS NEAL: To answer your question, the Office of Thrift Supervision, you're very accurate in terms of how--we had them as a result of the thrift, and then the FSA gave them equivalency and they became our consolidated--our regulator at that time.

They live with us. They are in the building.

They have offices. They do look at capital. They do look at risk. And from a G.E. Capital perspective, they report out. They talk to us on a regular basis. I meet with them regularly. My CFO meets with them sometimes twice quarterly in that regard.

So we are regulated. Not the same as a bank holding company, but we are regulated by the OTS.

COMMISSIONER BORN: So they regulate all--

CHAIRMAN ANGELIDES: Would you like additional time?

COMMISSIONER BORN: Maybe two minutes?

CHAIRMAN ANGELIDES: Sure. Absolutely.

COMMISSIONER BORN: So they regulate all of G.E. Capital?

WITNESS NEAL: Um-hmm.

COMMISSIONER BORN: But do they go up to the parent, G.E., or not?

WITNESS NEAL: They do, but most of their focus is on the--

COMMISSIONER BORN: Financial operations, which are clearly in G.E. Capital.

WITNESS NEAL: But you should also know, Commissioner, that we are regulated all over the world. We are regulated--we own banks. We're regulated in every country we're in.

I read sometimes that we're not regulated. We are. We feel regulated in that regard. We're regulated by the Banque de France. We're regulated in Central Europe. The first person I see when I travel to Japan is the Bank Governor in Japan, because we're a large Japanese company, as well. But we do have the OTS. And quite frankly that was the only avenue available to us when that happened, and they are with us, and they do regulate us.

COMMISSIONER BORN: How many people do they have stationed at G.E. Capital? How many examiners?

WITNESS NEAL: Eight to ten.

COMMISSIONER BORN: Before this program, the Consolidated Supervisory Entity Program of OTS was adopted for you, did you have any regulation other than direct regulation of the thrift affiliate?

WITNESS NEAL: We had that, and we had the Bank of New York.

COMMISSIONER BORN: You had the Federal Reserve Bank of New York you mean?

WITNESS NEAL: New York State Bank.

COMMISSIONER BORN: New York State Bank was your banking regulator, state banking regulator?

WITNESS NEAL: That's right.

COMMISSIONER BORN: Thank you.

CHAIRMAN ANGELIDES: Mr. Holtz-Eakin.

COMMISSIONER HOLTZ-EAKIN: Thank you, Mr. Chairman, and thank you gentlemen for spending this time with us.

Let me just pick up there on one last little detail, which is sort of whether you view your supervision by OTS in particular a stress test of the type that the Fed would run under its Supervisory Capital Program, whether you feel this is a comparable supervisory regime or not?

WITNESS NEAL: We think so. We spent a lot of time in 2009 trying to--we stressed ourselves, and then had an all-day investor meeting, 184 pages, on March 19th where we took our whole business through our best--we had a lot of help with this--the Fed stress cases. The OTS is involved with us.

We think that we have stressed the business, and the business has been stressed with the help of the OTS in a way that is comparable.

COMMISSIONER HOLTZ-EAKIN: So you actually used the Fed's stress--

WITNESS NEAL: As best we could. We got a lot of advice on--obviously we weren't one of the 19 banks, but our investors were asking for that so we did. It helped a lot as we tried to make G.E. Capital one of the more transparent companies out there. And I think that worked for us, largely. And, frankly, we have performed below base case since that time, and the business is better.

COMMISSIONER HOLTZ-EAKIN: Can I ask you one more question about just sort of the business model, which is: Do you have loans into commercial real estate, residential real estate?

WITNESS NEAL: We do. We have--we have both commercial and residential.

COMMISSIONER HOLTZ-EAKIN: Residential real estate mortgages?

WITNESS NEAL: Yes. We owned a company. We bought it in 2004, a company called WMC, which was in the residential--it was in Burbank, California. We bought it. We were in the business for about three years. We never got very comfortable with it, and in about 2006 became uncomfortable with the business model and exited the business in early 2007. But we do have residential real estate in other parts of the world.

We have a pretty good mortgage company in the UK. We have a large residential mortgage company in France. And we also have a residential mortgage company in Australia.

Our banks that we--not in this country.

COMMISSIONER HOLTZ-EAKIN: But you own abroad.

WITNESS NEAL: --own abroad, Bank of Budapest in Hungry, Czech Agribanca in the Czech Republic, they all have mortgages as part of their normal product suite.

COMMISSIONER HOLTZ-EAKIN: So has your mortgage losses looked like the industry as a whole, like the great losses in the U.S.? Or have you done better than everyone else?

WITNESS NEAL: We have done pretty well around the world. The UK business was loss-making last year, but not big, and turning the corner. It was a forty, is that right, $40 million roughly profit in the first quarter.

The French platform is largely prime and has performed well. The UK business is not originate to distribute. It's originate for our own balance sheet, so we have--

COMMISSIONER HOLTZ-EAKIN: Do you have originate to distribute entities? I thought you were exclusively originate to hold for balance sheet?

WITNESS NEAL: In terms of the mortgage business, I would say for the most part. There is probably some originate to distribute in the Australian platform, but we're winding that down.

Honestly, we are less interested in mortgages globally and are not trying to grow those businesses at this point.

COMMISSIONER HOLTZ-EAKIN: How about commercial real estate?

WITNESS NEAL: Commercial real estate we have--

we're a large commercial real estate player. We operate in about 28 countries around the world. We have about an $80 billion book of commercial real estate.

Of that book, about 60 percent of it is a debt book. And about 40 percent of it--these are rough numbers--is an equity book. And again, originated for our own holding.

COMMISSIONER HOLTZ-EAKIN: And how is that book performing, that book in particular?

WITNESS NEAL: It's been hard. The values of commercial real estate--and I would say that was maybe one of our misses, that the book is too big, particularly the owned book.

When we used to think about a cycle in real estate, we would think of it being down 20, 25 percent. These assets in many cases have fallen 40, in that regard, and as a result of that we've had to put a lot of reserves into that business.

The business was quite profitable back in 2007, and last year, I don't know the exact number, but over a billion dollars in losses in that regard, much of it accounting in terms of reserves, but we are a large player around the world.

COMMISSIONER HOLTZ-EAKIN: Thank you.

I wanted to pick up just a couple of details on some of the other business models here. You don't hold any of the asset-backed commercial paper, you said. Don't you give up some yield in the process? You said you never touched that?

WITNESS McCULLEY: Right. And in fact that was a conscious decision that we made on behalf of our clients.

COMMISSIONER HOLTZ-EAKIN: How do you hold onto your clients if you're giving up yield?

WITNESS McCULLEY: Our investment portfolios away from our money market products have cushions of cash, but the value added in the overall portfolio tends to come from other holdings in the portfolio besides cash, and in investing the cash buffers in the portfolios, you give up historically some incremental yield, a handful of basis points, to being in conventional commercial paper versus asset commercial paper. And we made the judgment as a firm that that was the prudent thing to do for our clients, to give up that handful of basis points, because we could not get comfortable looking through the balance sheet of the conduits and get comfortable with the assets they were holding.

So it was a conscious decision to give up a few basis points in the interest of preservation of capital for our clients.

COMMISSIONER HOLTZ-EAKIN: Thank you.

Mr. Meier, you said that you invest in commercial banks, regulated banks. Do you have any exposure to investment banks?

WITNESS MEIER: We have exposure to what were investment banks back in the day. I guess if you consider--

COMMISSIONER HOLTZ-EAKIN: Not any more, yes.

WITNESS MEIER: --Goldman Sachs banks, but, yes, we do.

COMMISSIONER HOLTZ-EAKIN: So one of the things I'm curious about is I think it's true that both of you were involved in repo agreements with Bear Stearns, is that correct?

WITNESS MEIER: Yes.

COMMISSIONER HOLTZ-EAKIN: Mr. McCulley?

WITNESS McCULLEY: Historically, yes, we were involved in repo.

COMMISSIONER HOLTZ-EAKIN: So when you looked at the collateral--and I gather you would have used only their Treasuries and agency securities?

WITNESS McCULLEY: Right, and bilateral.

COMMISSIONER HOLTZ-EAKIN: And bilateral repo. What collateral would you use?

WITNESS MEIER: It was dominated by traditional collateral, Treasuries, bills, bonds, notes, agency debentures, and agency NBS. But we did have some alternative collateral.

We also settled 100 percent of those transactions on a tri-party basis.

COMMISSIONER HOLTZ-EAKIN: Okay. So what I'm interested in is, as we move to the Fall of 2007 and start to move toward March of 2008, obviously the crucial period, how were you evaluating the collateral?

We heard testimony yesterday that in repo you evaluated it on the basis of the counterparty, not the collateral; and that Bear's problem was as a counterparty.

I was curious how you, first Mr. McCulley, viewed what you were holding from Bear, and whether you were evaluating the collateral, which you looked through and understand; or whether you were looking at Bear itself?

WITNESS McCULLEY: I think you do both. First, you want to know that you are adequately over-collateralized so that you're really lending against the collateral with the haircut.

But also you look to the counterparty. Because if the counterparty fails to deliver on the repo, you by law have the collateral. The collateral is greater than the amount of money that you lent, and you can go sell the collateral outside of the bankruptcy process. That's part of the legal structure for repo.

But actually, that is not something that you normally want to do. You secure yourself, and you can sell the collateral, but that quite frankly is a very serious headache. And so therefore you would prefer not to deal with counterparties where you think there is a significant possibility that you may actually be forced to liquidate the collateral in order to be made whole. So you actually look at both.

COMMISSIONER HOLTZ-EAKIN: Mr. Meier?

WITNESS MEIER: I would agree with Mr. McCulley. We certainly look at both. I would say the counterparties are a first line of defense, and we don't want to go through that uncomfortable process of having to liquidate collateral, irrespective of whether it's over-collateralized or not.

It is something that creates concern among our investors. The headline risk associated with that would be considerable. So again, when there was a deterioration in terms of Bear Stearns as a counterparty, we would opt not to roll transactions with them, even though it's traditional collateral that typically benefit from a flight to quality, and it was over-collateralized.

COMMISSIONER HOLTZ-EAKIN: I want to ask a further question about both the collateral and the counterparty, which is: We have heard conflicting reports on Bear Stearns's problems. Their officials told us that they were always solvent, and that they were in the end victims of a run founded on rumors that were not true. And we have had other officials, notably former Secretary Paulson, say that they were insolvent.

So in your evaluation of them as a counterparty, what did you see when you get to March of 2008? Mr. McCulley?

WITNESS McCULLEY: For a levered financial institution, if the marketplace comes to the conclusion, rightly or wrongly--

COMMISSIONER HOLTZ-EAKIN: I'm not interested in the marketplace conclusion. I want--

WITNESS McCULLEY: --that they're insolvent, then they are insolvent.

COMMISSIONER HOLTZ-EAKIN: So your conclusion?

WITNESS McCULLEY: If Bear was liquidated, it would have been insolvent. It was solvent only if it was a going concern, and it was only a going concern because it was merged into JPMorgan. That's the essence of the name of the game in financial services.

If you have to prove your solvency, then in fact you're not solvent.

COMMISSIONER HOLTZ-EAKIN: Mr. Meier?

WITNESS MEIER: I would suggest when we looked at

Bear Stearns, our analysis was as follows: First of all, I think that the senior management from Bear Stearns have a much better determination of whether they were solvent or not.

From our perspective, though, their problems really began in the early part of 2007. They had well documented, well covered in the financial press, problems with some of their hedge funds. They had a very concentrated business model. And they were a significant participant in the mortgage market, in the subprime mortgage market, and private label securitization as well.

They had a significant fixed-income business, not much diversification beyond that. Their assets and their focus had really been in the U.S., so they didn't really have global diversification.

They were a leveraged entity, and we knew what our behavior was; that over the course of time, other investors would start to certainly roll down their exposure to Bear Stearns, which meant that the potential for a quick run was significant.

They also had issues, problems with their management team and leadership that were covered in the markets as well, and in the press. So we became increasingly concerned about them as a counterparty and ultimately reached the determination that, given the risk aversion, the risk appetite of our clients, it was more prudent to simply no longer roll over purchase agreements with Bear Stearns.

COMMISSIONER HOLTZ-EAKIN: And so who else did you pull back from, and when? Lehman? Mr. McCulley?

WITNESS McCULLEY: During that period after the Summer of 2007 when you got the run on the asset-backed commercial paper market, we as an industry, and we as PIMCO on behalf of our clients became ever more circumspect with respect to counterparty exposure. And we had concerns, and where we did have concerns we reduced exposure, yes.

COMMISSIONER HOLTZ-EAKIN: Were you exposed to Lehman when they went under?

WITNESS McCULLEY: Our clients owned Lehman Brothers bonds in their portfolios at the time, yes.

COMMISSIONER HOLTZ-EAKIN: Under your advice?

WITNESS McCULLEY: We collectively made the decision to invest in Lehman Brothers bonds, their unsecured debentures, and in retrospect that was a decision we wish we hadn't of made.

COMMISSIONER HOLTZ-EAKIN: And what was different about them versus Bear Stearns that gave you the confidence to make those investments?

WITNESS McCULLEY: As a practical matter, they were both operating in a similar business model.

COMMISSIONER HOLTZ-EAKIN: Yep.

WITNESS McCULLEY: Bear was smaller and, as Mr. Meier noted, had a more concentrated business in the mortgage arena, and also was not globally diversified. So conceptually Lehman had a better business than Bear did, but as a practical matter we found out that diversification globally did not matter and that their concentration in mortgage risk was very, very large.

So actually the big difference between those two firms is that one the Federal Reserve could find sufficient collateral in order to facilitate a loan to do the merger with JPMorgan, and in the case of Lehman Brothers they couldn't find sufficient collateral to lend against.

COMMISSIONER HOLTZ-EAKIN: Could I get--

CHAIRMAN ANGELIDES: Three minutes.

COMMISSIONER HOLTZ-EAKIN: Did you expect them to find a partner and get assistance?

WITNESS McCULLEY: That was the general market expectation.

COMMISSIONER HOLTZ-EAKIN: Mr. Meier, same question, in the interest of completeness.

WITNESS MEIER: When I think of our exposure to Lehman Brothers--and we did have exposure on a fully collateralized basis for repurchase agreements with Lehman Brothers--when we looked at them as a counterparty, it was a different analysis.

Lehman Brothers as a business had been very focused on the short end of the curve. They were a recognized leader in providing services and products to the money market area. And when I say that, it would include out to say five years.

They had a more diversified revenue source. They had significant growth in their equity business, for example. They were a global firm with growing operations outside the States. So a more diversified business model.

I think also we had a relatively high degree of confidence in their management because they had been through liquidity crises in the past, and that they had--they were able to survive in difficult markets.

I would also say our analysis shifted pretty dramatically post-Bear Stearns, and that the Bear Stearns sale to JPMorgan was orchestrated by the Fed. Immediately thereafter, the Fed announced the Primary Dealer Credit Facility, which I think was a tremendous benefit to Lehman Brothers. And our expectation at the time, our assessment at the time was that would provide them with time to recapitalize themselves, seek other partnerships, and potentially sell the firm. And our expectation is that would occur over the course of time.

COMMISSIONER HOLTZ-EAKIN: I want to go back to the haircuts on collateral. What haircuts did you apply to agency securities in your repo with Bear?

WITNESS McCULLEY: Well convention on Treasury and agency collateral is 102 percent. And then for alternative collateral, haircuts go up but we were not engaged in repo with Bear in alternative assets. So it would be conventional 102.

COMMISSIONER HOLTZ-EAKIN: And that didn't change even right up to the very last transactions you did with them?

WITNESS McCULLEY: For Treasury and agency collateral, and agencies were implicitly and then explicitly backed by Uncle Sam, that was convention. And we applied conventional haircuts if we chose to do business with them. Because, remember, you never want--you really don't want to get in the situation where you have to liquidate the collateral so--

COMMISSIONER HOLTZ-EAKIN: I understand, but--

WITNESS McCULLEY: --it's that two-pronged issue.

COMMISSIONER HOLTZ-EAKIN: --you've told us that you did great due diligence on looking at what was actually inside things. So you sent people to 20 cities. You decided there wasn't a decent mortgage in America, and you applied no haircuts to agency securities?

WITNESS McCULLEY: No, 102 percent.

COMMISSIONER HOLTZ-EAKIN: But you didn't increase them in light of the growing evidence of bad mortgage origination, which in the end was going to be on the books of Fannie Mae and Freddie Mac?

WITNESS McCULLEY: We fully expected that our government, if push comes to shove, would wrap its arms around Freddie and Fannie, and that's precisely what happened.

COMMISSIONER HOLTZ-EAKIN: Thank you.

CHAIRMAN ANGELIDES: Just one little follow-up from me before I go to you, Senator, because, before I forget it, which is, I think it was you, Mr. Meier, and maybe you, Mr. McCulley, or maybe both of you cited media reports.

When the folks from Bear were here yesterday they cited the extent to which rumors helped drive the liquidity squeeze. I believe in the course of interviews with our staff, folks indicated that sometimes folks in your position may just decide not to have an institution as a counterparty to avoid the heartburn of explaining to clients why you have that institution that has negative media around it as a counterparty.

To what extent--I assume you do more thorough due diligence than picking up the newspaper, but to what extent does it factor in? Just stories that may or may not have full veracity?

WITNESS MEIER: If I can address that, Mr. Chairman, of course we don't make credit decisions based on what's covered in the popular press. We do all of our own head work around our counterparties and the issuers with whom we buy paper from, but it is a source of information out there and it does affect perception in the marketplace, and it does, candidly, expose certain investment vehicles to headline risk and flight risk.

CHAIRMAN ANGELIDES: I think what I'm really asking, sometimes you just decide in the range of vehicles available to you, you know, why screw around with this one and have to explain it to your clients when there's other good choices. Reasonable? Rational? Or no?

WITNESS McCULLEY: Prudent risk management means that you're on top of all of your counterparty relationships all the time. And that means doing your head work and your shoe leather work. And if you see that your counterparty is deteriorating, then logically you should pare your exposures, ask for additional collateral, et cetera. But you also do read the newspapers, because in highly levered financial institutions sometimes perception can become reality.

In fact, that's what a run is about. So you do have to be attuned to the perception of the market while you're also focused like a laser beam in your own credit work.

CHAIRMAN ANGELIDES: All right. Senator Graham?

COMMISSIONER GRAHAM: Thank you, Mr. Chairman, and thanks to each of the gentlemen for their very insightful testimony.

Our Commission was established to answer the question what went wrong, what was the cause of the financial crisis we're in. Do you consider that the segment of the financial industry that you occupy was responsible for any of the crisis that we are now living through?

WITNESS McCULLEY: The underlying culprit in the crisis you have to trace back to the systemic degradation of underwriting standards in mortgages. That is where the--

COMMISSIONER GRAHAM: In residential mortgages?

WITNESS McCULLEY: Residential, and also on the commercial side, but in an immediate sense the residential came first. So as Secretary Geithner was discussing earlier today, there are a number of vectors you have to look at from the standpoint of the crime, but systemic degradation of underwriting standards for mortgages is where the smoking gun is.

COMMISSIONER GRAHAM: And you don't have any of those bullets in your pocket?

WITNESS McCULLEY: I didn't underwrite any loans where the borrower didn't put any money down, and didn't have to show his W-2, and didn't have to pay the full interest rate. We're not in the mortgage underwriting business.

WITNESS NEAL: Senator, I would just add, I don't know if the so-called shadow banking system versus the banking system was the major--I think what happened is we had for awhile more liquidity in the marketplace than anything I've ever seen.

And that created a lot--you know, it was pretty remarkable. And also, Senator, there was a general view, if you go back to 2007, as crazy as it seems now, that that liquidity was going to be here for awhile. The consultants were talking about it, new forms of capital from around the world, China, India, sovereign wealth. And so I think there was a general view, and it was wrong, that the world was going to be very liquid for at least awhile.

So I think that's a piece of it. I think that allowed people to maybe get over-levered in some of these spaces. And, you know, if you have high leverage and you have the potential for volatile assets, you are on very thin ice in that regard.

I would agree with Paul that, you know, this originate-to-sell changed things. It's not just mortgages. It happened in leveraged loans. It happened in other markets. But I think that it changes the way the business operates.

If you are putting an asset, whether it's a mortgage or an LBO, if you're originating that to have it on your balance sheet for the term, then you will look at it for the term. You have to live with it. You have to live with the consequences of that decision.

If you're originating that transaction only to put it into a security and sell it, particularly if you're not going to stay in the security, it becomes a fee-based business. It's really just how much can I originate, because you get paid monthly based on what you sell. It goes out, you take what they call in the industry a skim--another bad word I think--but that's how it works.

And I think a lot of the underwriting problems really happened from the standpoint that this underwrite-to-distribute model became very large. And I think that created--so you have high leverage. You have high liquidity. The liquidity didn't last.

You have the issue I think where people were a little bit lulled to sleep just from the standpoint that they thought it was--you know, when you see 2 percent cap rates, things are expensive. But if you think it's going to be that way for 10 years, you know, maybe not so expensive.

So I think that's why people maybe didn't make some of the bold actions that they might have made otherwise. And then I think the underwriting--and it varied a lot--but the underwriting standards of some firms, some institutions, depending on what they were doing, wasn't that good.

That's how you get into these no-doc--I mean, why--Senator, if you owned your own bank, you wouldn't let anybody bring in a transaction to you where you don't know if they have a job or not, or there's no documents. You just wouldn't do it.

But maybe if you think you're just going to sell it and take a fee, and then people sort of say, well, there's so much liquidity, asset values will continue to rise so it really doesn't matter. And of course when you're wrong, you're very wrong on this.

So I think--I mean, that's how I would think about it.

COMMISSIONER GRAHAM: Any other comments on the possible contributions of this aspect of the industry towards the crisis?

WITNESS MEIER: Well, Senator, if I can address that, please. I would suggest, with the benefit of hindsight, things are a lot clearer than they were back in say 2006 and 2007.

Clearly there was an excessive amount of leverage and too much liquidity in the marketplace. I think Mr. McCulley and Mr. Neal are correct in that there was a thinking on the part of some market participants, the philosophy of originate-to-securitize and get the risks off your book.

There also was just a significant flow of asset-backed securitizations coming down the pike, and I think many investors didn't do their homework. They didn't do their analysis. And I think that's where they got into trouble.

In terms of, you know--

COMMISSIONER GRAHAM: Excuse me. Is that because, was there a lower level of due diligence during this period than had been the norm let's say over the preceding 5 or 10 years?

WITNESS MEIER: Senator, I really can't say whether there was or there wasn't. I know from our perspective that we never let down our guard in terms of the due diligence and the analysis we did.

We had concerns about the subprime mortgage market, the Alt-A market for the same reasons as have been articulated here through other committee discussions.

You know, we saw a decline in average FICO scores, the average credit quality of the borrowers, higher loan-to-value ratios. We saw all sorts of unusual mortgages coming down the pike such as IOs, and Option Arms.

We saw concentrations of paper being distributed or sold into the marketplace in real estate markets that had significant appreciation.

COMMISSIONER GRAHAM: Yesterday we had people with very impressive resumes who said that they could not see this storm coming over the horizon. You just listed a half-dozen data points that you were monitoring which caused you to see something was coming over the horizon.

What is that caused you to be as sensitive to what was happening when other people were not?

WITNESS MEIER: That's a great question, Senator. I think it had probably more to do with the types of assets we manage. The risk tolerance of our underlying clients. The fact that we manage most of the assets in our cash business to a book value construct. So there's a very small margin of error.

So for us it came down to the question of suitability, and exposing our clients into assets that could potentially have a lot of either ratings volatility, spread volatility, and price volatility which just seemed inappropriate and unsuitable.

COMMISSIONER GRAHAM: Well, in fact I have no time--

CHAIRMAN ANGELIDES: Would you like some, Senator?

COMMISSIONER GRAHAM: Two minutes?

CHAIRMAN ANGELIDES: You can have two minutes.

COMMISSIONER GRAHAM: From the conversation that I had before this session started, I gathered that some of the reasons that people are here in the audience is because of what's happening a few hundred yards away from here in the Senate.

[Cell phone rings.]

COMMISSIONER GRAHAM: Excuse me, let me turn this off.

How would your industry be affected by the financial reform legislation that's currently being considered?

WITNESS McCULLEY: Well we're actually in different industries. The bookends of the table are in the same industry, and in the middle is in a different industry.

COMMISSIONER GRAHAM: I used--

WITNESS McCULLEY: But for all of us at the table--and I'm hesitant to speak for all of us; people will speak for themselves--I think we all have a interest in a financial system that has built in safeguards against a repeat of what happened during the crisis.

I think we all--not just as members of the financial services arena, but as citizens--have a tremendous interest in Washington putting in the appropriate regulatory structures--and that includes such things as capital requirements, resolution authority, lots of things that go under that mosaic--but I think that we as an industry benefit if our industry is properly regulated and policed.

So I think we will end up, I trust we end up in a better place for the financial services industry because I want, and my firm wants, and our clients want us to be participating in a sound industry that doesn't have fringe elements that are disrupting the normal functioning of the market, or tainting the integrity of the market.

WITNESS NEAL: Senator, I would say, first of all I would say that we applaud what you are doing here and the good work that you are doing, because we think this work needs to be done.

From my perspective, the whole idea of regulatory reform is much needed. I think the concept of systemic regulation to me makes sense. It makes sense to our company. The ability to resolve companies in a way that doesn't threaten the system I think makes a lot of sense.

We think the idea of having more and better capital inside of financial institutions will make them safer, will make the industry safer. Having enough liquidity at hand to deal with unforeseen issues that might come up from time to time we think makes a lot of sense.

Having cash to really give you the extended time you need as you may need to make choices about reducing a balance sheet, or generating cash in some other way I think makes sense.

The whole idea I think of match-funding your assets and liabilities, something some people do, some people don't, you know, borrowing short, lend long works until it doesn't. But I think the idea of having match-funding, matching that from a duration standpoint, makes a lot of sense.

To me the whole idea of having different types of underwriting, the idea that you have underwriting--I would tell you that I think many people that underwrite to hold on their own balance sheet have done better in this process than the securities have done where that didn't happen.

So the idea that this work that you're doing ends up in a different way of thinking about this from a regulatory standpoint, from a resolution standpoint, I think we think it's a good thing.

WITNESS MEIER: I would add to that--

CHAIRMAN ANGELIDES: Go ahead and just answer, one minute to answer, and then we'll move on.

WITNESS MEIER: Sure. I would concur with everything that's been said. I would also add to that, I think it's certainly in the best interests of the American people--and Secretary Geithner referred to this earlier as a 100-year storm; we want to make sure this isn't an every 10-year storm.

So I do think that regulatory reform will be important in terms of protecting the American people, our interests and our position in the world.

COMMISSIONER GRAHAM: Thank you.

CHAIRMAN ANGELIDES: Thank you.

Mr. Wallison?

COMMISSIONER WALLISON: Thank you, Mr. Chairman.

Let me start with you, Mr. McCulley. You said that we should have a regulatory system in which systemically important firms are regulated. I think that was sort of the point you were making at the outset. And I'm wondering how we can tell whether a firm is systemically important. How would you tell whether a firm is systemically important?

WITNESS McCULLEY: There's not a precise--

COMMISSIONER WALLISON: I know.

WITNESS McCULLEY: --definition.

COMMISSIONER WALLISON: I'm not asking for a definition. I'd like to just know how you, if you were say the chairman of the Federal Reserve and had an opportunity to say which firms you are going to regulate, which may come out of the current regulatory bill that's before Congress, how would you decide whether to regulate a firm as systemically important?

WITNESS McCULLEY: I think this question has been grappled with repeatedly. You think in terms of the stress tests involved 19 firms, so obviously those 19 were deemed systemically important. And in one of the proposals in the legislative process now is to deem anybody who has greater than $50 billion worth of footings to be systemically important.

So it's not an easy thing to do. It’s an important thing to do.

CHAIRMAN ANGELIDES: Did you say "footings"?

WITNESS McCULLEY: Size of balance sheet, I'm sorry. I'm using jargon.

CHAIRMAN ANGELIDES: Thank you.

WITNESS McCULLEY: Um--

CHAIRMAN ANGELIDES: I've heard more complex jargon.

(Laughter.)

WITNESS McCULLEY: The important thing is that you have a resolution mechanism for these institutions so as that if they fail they can fail in a orderly fashion. That's more important than defining whether it's 46 or 73 firms. Whatever you define it is that you can have a orderly funeral for them if they die, as opposed to a debacle like we had post-Lehman.

COMMISSIONER WALLISON: Okay. Now you said that PIMCO is not a member of the shadow banking system. Why do you think it's not?

WITNESS McCULLEY: PIMCO is an investment manager.

COMMISSIONER WALLISON: Yes, and so are hedge funds. Hedge funds are thought to be members of the shadow banking system. So in what way is PIMCO different from a hedge fund?

WITNESS McCULLEY: PIMCO does not manage money for PIMCO. PIMCO manages money for clients. Some of our clients--it's a small portion of our business--run levered mandates. When they hire us to be the investment manager, they explicitly in their investment management contract request that we lever their portfolio.

So some of our clients would be--could be characterized as shadow banks, because they're levered without access to a lender of last resort. But PIMCO itself as the investment manager is not a shadow bank.

COMMISSIONER WALLISON: But a hedge fund is simply a fund manager, is it not? I mean, yes, they're managing their own money, but they are making investments with their own money.

WITNESS McCULLEY: The hedge fund itself could be deemed a shadow bank.

COMMISSIONER WALLISON: That's right.

WITNESS McCULLEY: The manager of the hedge fund--

COMMISSIONER WALLISON: --is not.

WITNESS McCULLEY: --is not.

COMMISSIONER WALLISON: Right.

WITNESS McCULLEY: Now frequently it's the case with hedge funds that the manager is investing his own money--

COMMISSIONER WALLISON: Um-hmm.

WITNESS McCULLEY: --whereas, we are a third-party manager.

COMMISSIONER WALLISON: But you have a fund that you are investing, is that right?

WITNESS McCULLEY: I'm not sure I'm following the question.

COMMISSIONER WALLISON: When your customers give you money to invest for them, do they not give you the opportunity to take this money, put it into an account of some kind, and manage it for them?

WITNESS McCULLEY: Yes, they do. And some of those clients indeed want that account to be managed on a levered basis. So that account would have the characteristics of a shadow bank; that's correct.

COMMISSIONER WALLISON: Now you said before--I'm obviously going to run out of time with all the things I'd like to ask about--but you said before that financing sources like Bear would be better off if they were implicitly backed by the government. Would that be helpful, to give them access for example to, not a financing source but a financing user like Bear, would that be helpful in making sure that we didn't have the kind of crisis that we had before? Would you suggest that anyone that is making use of financing sources be regulated or have access to the Discount Window, the Fed's Discount Window?

WITNESS McCULLEY: Unambiguously, if you are going to have access to the Fed's Discount Window, you should be regulated.

COMMISSIONER WALLISON: Yes.

WITNESS McCULLEY: It is simply not tenable for the Fed to be lending to someone that they have no regulatory control on. That's a self-evident truth, it seems to me.

After the merger of Bear into JPMorgan, the Federal Reserve created the Primary Dealer Credit Facility, which they did under Section 13.3 of the Federal Reserve Act, opening effectively the Discount Window to the primary dealers.

That was not an easy decision for the Federal Reserve to make. Because essentially they opened a facility to lend to people they weren't regulating. So I don't think that's an appropriate approach. If you're going to have access to the Federal Reserve's balance sheet, then it seems to me it's axiomatic that you should be regulated.

And that was an emergency thing, and actually they had to evoke 13.3 to do it. Again, going forward, the key issue it seems to me is we need to have a mechanism so as that a systemically important institution can fail in a orderly fashion. Orderly bankruptcies should not be the tender for a large fire. However, if they're disorderly, they become the tender for a fire that almost engulfed our financial system and gave us a nasty recession.

So I put the most emphasis on orderly unwinding.

COMMISSIONER WALLISON: And what is the difference between a disorderly and an orderly unwinding, in your view?

WITNESS McCULLEY: Actually I think Secretary Geithner did a excellent job of articulating that this afternoon. A orderly unwinding, to use his analogy, is when a house can burn down but doesn't in the process burn down the neighborhood.

COMMISSIONER WALLISON: But that means, does it not, that creditors of that institution, or I don't know how we analogize it to a house, but the creditors of that institution are paid off?

WITNESS McCULLEY: That's correct.

CHAIRMAN ANGELIDES: Would you like additional, what, two minutes?

COMMISSIONER WALLISON: Yes. Just to get this question in.

WITNESS McCULLEY: That's correct.

COMMISSIONER WALLISON: Creditors would have to be paid off?

WITNESS McCULLEY: No, no. An orderly resolution could involve, and should involve haircuts for creditors. And in fact one proposal that's being discussed for an orderly resolution is actually another section of the Bankruptcy Code specifically so as that you can have an orderly resolution, in which case unsecured creditors simply take a haircut and take the loss, as opposed to unsecured creditors in a bailout getting par on the dollar and the taxpayer being on the hook. I don't want that to happen.

COMMISSIONER WALLISON: I don't think anyone wants it to happen. But the thing I'm trying to get at is, if you tell creditors that they are going to take a loss, say we decide that they're going to take a 20 percent loss, wouldn't that signal to other creditors in the market that they have to run from whatever their investments are because they are not going to be paid out fully? Isn't that the definition of a disorderly workout, or bailout, or whatever you want to call it?

WITNESS McCULLEY: Commissioner, we're talking about changing the regime so as that you know ahead of time that you're not going to be bailed out; that if the institution gets into trouble, it will go into an orderly unwinding process and you will lose money. So it's changing the regime which allows you to return to market discipline.

If I know as an investor that I'm not going to be bailed out and that I am going to take a haircut in the event that the financial institution goes under, then I will either charge a higher interest rate or not lend to them at all.

So returning market discipline to the system is a key part of regulatory reform.

COMMISSIONER WALLISON: Why wouldn't bankruptcy do the same thing?

WITNESS McCULLEY: In fact I'm suggesting that it would. But you would need to have a new section of the Bankruptcy Code to make a special case so as that you have an orderly unwinding.

Remember, Lehman Brothers went through bankruptcy and that was disorderly. So therefore if you want to go the Bankruptcy Code, you would need legislation that created a separate section for systemically important financial institutions.

COMMISSIONER WALLISON: I've run out of time. Thanks very much.

CHAIRMAN ANGELIDES: All right. Mr. Georgiou, go ahead.

COMMISSIONER GEORGIOU: Mr. Neal and Mr. Barber, I wondered if you could tell me, you've shrunk the size of your borrowings, and I take it comparably your assets, considerably over the last two years. Was that--can you say whether you did it to de-lever your borrowings, or because the demand for your services and your loans were, your financings, were less? I mean, which?

WITNESS NEAL: It's a great question, and it's complicated, the answer. We actually started back in early two thousand--we go through a strategic plan just like all of G.E. does each year, and we went through a fairly rigorous capital allocation approach in terms of, you know, what businesses were strategic, what product lines, what geographies, what areas had we performed well over time, and really what was the best part of the company. We do that each year, because even in the year where we may be growing we still have businesses that we want to grow faster, businesses that we might want to exit.

I would say, as we rolled into this very difficult environment in 2009 and part of 2008, a number of things happened. One is, we accelerated that plan in order to generate cash, or have the balance sheet be stronger.

I would say, secondly, because of the recession--a big piece of what we do is finance capital equipment--there was less being sold. So that put some pressure just on our new volumes, even in businesses that we find highly attractive from that perspective.

But the view is, our view is, my view is, from a G.E. Capital perspective, we were probably a little too big from just a good portfolio management inside of a company like G.E. So we're reducing the size of the company between now and the end of 2012 by about 25 percent.

COMMISSIONER GEORGIOU: From your height? Or from your current--

WITNESS NEAL: From the height, in terms of our size. We'll have the business down to a balance sheet of about $440 billion by the end of 2012, largely exiting businesses not in the U.S., but in other parts of the world.

COMMISSIONER GEORGIOU: But of that, you finance, what was it, 20 percent through commercial paper? Is that right, or no?

WITNESS NEAL: Well today the debt stack in the company, we have about--and Mark may correct me here--but we have about $500 billion of total debt. About $350 billion of that is long-term debt.

COMMISSIONER GEORGIOU: Right.

WITNESS NEAL: Less than fifty, about forty-six I think today is commercial paper, of different tenors. It's not all short.

Then we have about $100 billion of other types of financing. We do have deposits both in this country in the banks--

COMMISSIONER GEORGIOU: I understand, yes. So I guess, Mr. Barber, when you said you shrunk the commercial paper by half, that's really--that wasn't, your business wasn't going down by half? It was just that particular means of funding? Is that correct?

WITNESS BARBER: Yes, sir.

COMMISSIONER GEORGIOU: Okay.

WITNESS BARBER: There's a shift that would have occurred in our funding mix, and Mike is absolutely right about his numbers and how the debt stack shapes up right now. So there's less reliance on commercial paper, an increased cash portfolio that we have. So there's less commercial paper that we are rationing and turning over in the market. That's balanced out by increases in some of our other forms of funding, whether it's long-term debt, or deposits that we take around the world, and so forth.

COMMISSIONER GEORGIOU: Thanks.

Mr. McCulley, I guess I understand you don't like tri-party repo? Is that right? You prefer bi-party?

WITNESS McCULLEY: Historically that is correct, that we have not been comfortable with the tri-party.

COMMISSIONER GEORGIOU: And why is that?

WITNESS McCULLEY: Because there was not full transparency to us on the marking of collateral in the tri-party system. And the tri-party system has lower quality instruments in it.

The tri-party system is being seriously evaluated and strengthened in efforts led by the New York Fed, and it is quite possible that going forward we may be involved in the tri-party repo arrangements because we think the architecture is going to be made much more robust.

But historically we did not think the architecture was sufficiently robust.

COMMISSIONER GEORGIOU: So you only engaged in transactions where you actually knew exactly what the collateral was and you were dealing with the party that held it?

WITNESS McCULLEY: Yes. We were engaged in bilateral, where actually the counterparty to repo actually wired the collateral to the custodian bank of our client. It would not be held by a third-party bank.

COMMISSIONER GEORGIOU: Right. And I take it, Mr. Meier, you did engage more in tri-party repo? Is that right?

WITNESS MEIER: Yes, Commissioner. I would say at our peak, with about $175 billion worth of repurchase agreements outstanding, about 98 percent settled on a tri-party basis.

COMMISSIONER GEORGIOU: Um-hmm.

WITNESS MEIER: And I would also have to say that, you know, 50 percent of those assets and our current assets are what would be considered traditional collateral. So Treasuries, agency, agency mortgage-backed securities.

The tri-party settlement system is really just a mechanism for obtaining possession and control of the collateral. It happens to occur at our dealer or bank counterparty's clearing bank for operational efficiencies.

COMMISSIONER GEORGIOU: Okay. And, Mr. Meier, to stick with you for just a sec, you said something to the effect that asset prices--you discussed asset prices getting below fundamentals. Was this an asset class other than mortgages, outside of mortgages?

WITNESS MEIER: Pretty much everything, Commissioner. In the height of the panic, credit spreads widened on everything, including say General Electric Credit Corp paper, which we certainly had a very high degree of confidence in them as an issuer as a counterparty.

COMMISSIONER GEORGIOU: And how did that cause contagion, in your view?

WITNESS MEIER: Wow. I think it added to a downward spiral in terms of the capital commitment and the unwillingness on the part of banks and dealers to make markets in the secondary market.

When I think back to how this crisis really began, it was a slow and steady deterioration in the subprime market. Come August of 2007, there was a recognition, I'd say an acute recognition, that potentially some of the asset-backed commercial paper conduits could have exposure to those areas.

As a result, investors in general--without even looking into the underlying assets--decided I don't want to be in any asset-backed commercial paper, I don't want to invest in a fund that may have those positions.

COMMISSIONER GEORGIOU: Regardless of whether they were--what the asset was backed by?

WITNESS MEIER: That's exactly right, Commissioner. So I think the lesson I learned from that was that informed transparency is critical. Our clients knew what we owned, but they didn't actually have the information that we had in terms of doing our due diligence in looking at everything.

So the problem was, when we buy asset-backed commercial paper, we actually look through to the underlying bank that supports that. We only buy fully supported conduits, which means they have 102 percent of bank lines behind them.

So the issue is, when investors en mass pulled out of a $1.2 trillion market, the asset-backed commercial paper conduit market, those liquidity providers that were supposed to provide liquidity contingent upon an inability to roll commercial paper realized that they may be called to provide funding.

So they started hoarding cash. And a lot of those institutions were banks. And in the process of hoarding cash and derisking their portfolio, they stopped making normal secondary markets.

So what started out as a liquidity crisis quickly moved into a credit crisis, and then ultimately an economic crisis on a global scale.

COMMISSIONER GEORGIOU: Could I have one more minute for follow-up?

CHAIRMAN ANGELIDES: Absolutely.

COMMISSIONER GEORGIOU: If I understand that, you had 102 percent fully backed with, what, lines of credit from banking institutions?

WITNESS MEIER: Liquidity lines from banking institutions.

COMMISSIONER GEORGIOU: But of course they didn't have the liquidity to honor those obligations, so they had to delever. They had to start selling their assets to do that.

WITNESS MEIER: That's exactly right. And I should also state, Commissioner, that we didn't approve all asset-backed commercial paper conduits for purchase in our funds. Again, we did a detailed credit analysis. We probably had about 25 percent of the universe of available conduits approved, and we had relatively small positions in them.

COMMISSIONER GEORGIOU: Mr. McCulley, did you-- could you comment on that process of contagion? I mean, did you see the same thing going on with regard to all this asset-backed paper?

WITNESS McCULLEY: Yes. It was very obvious in the Summer of 2007 that a run on the asset-backed commercial paper was underway. I think in the last four months of 2007 some $400 billion was not rolled.

So it was very evident that the users of asset-backed commercial paper, the buyers went on a buyer strike and simply weren't rolling. And then it kicked off a whole chain of reaction that you and Mr. Meier were detailing.

COMMISSIONER GEORGIOU: And that started when?

WITNESS McCULLEY: In the Summer of 2007, particularly August of 2007.

COMMISSIONER GEORGIOU: Thank you very much.

CHAIRMAN ANGELIDES: Can I say, post-BMP? Pre-BMP? Post? Or pre? Do you remember which came first?

WITNESS MEIER: Post.

WITNESS McCULLEY: Post, I think.

WITNESS MEIER: It was right afterwards.

WITNESS McCULLEY: It was in and around that time. That would be August 9th of 2007, which is, when I'm asked to define what was the single day that was the Minsky moment, it was that day, August 9th.

CHAIRMAN ANGELIDES: I was wondering when you were going to get that phrase in. All right.

(Laughter.)

CHAIRMAN ANGELIDES: Mr. Hennessey.

COMMISSIONER HENNESSEY: Thank you, Mr. Chairman. I am going to direct this to Mr. McCulley, but I hope the rest of you will jump in as well.

One of my takeaways from both Secretary Paulson and Secretary Geithner was, don't spend all your time thinking about solvency; spend more time thinking about liquidity and the liquidity problems that occurred.

I am going to present some somewhat jumbled thoughts and I want to ask if you can help me sort them out. And it's sort of a similar line to what Peter was getting at.

First of all, I have a similar question to him, which is: I have believed that a big part of the problem was having a disorderly resolution regime, and have said and believe that we need an orderly resolution regime.

And then someone asked me: What do you mean by that? And I kind of wave my hands and say, well, it has to be orderly.

So to the extent that any of you have seen good explanations or good analyses--you were referring to some that might be out there--I would love to be better educated on smart people who have actually thought about the details of what a new section of the Bankruptcy Code means, or what was actually missing. Because I don't actually understand the mechanics of that well enough.

Okay, now on to my area of confusion. I sort of think of this as on the solvency side we were dealing with it--sorry, on solvency issues we were dealing with this on the asset side. We used TARP to put a bunch of taxpayer money in. I kind of get that.

On the liquidity issues we were basically dealing with it by guaranteeing liabilities. So the Fed was doing it by opening up their Discount Window to institutions they'd never done it before. We guaranteed money market mutual funds for awhile. And then made some changes in the FDIC, right, increasing the limit from $100,000 to $250,000 for individuals, and then if you've got, what, a transaction account and a small business you're guaranteed for good.

I understand why those made sense during the crisis. I understand why I think they worked, basically, to at least slow down the liquidity runs. The FDIC is now saying they're going to continue their policies at least through the end of the year, and quite possibly longer.

And what scares me is that we are then substituting regulatory discipline for market discipline, at least in those areas. And so, Mr. McCulley, coming back to your original concept of parity between traditional commercial banking and shadow banking, commercial banks have deposits. The shadow banks don't. They have something else.

Setting aside the supervision aspects, how do you deal with the guarantees of liability issue? How do you create the parallel, or do you create the parallel to deposit insurance? And how do you think about market discipline versus regulatory discipline with liquidity runs and shadow banking?

Does my question--I think you can see the area I'm sort of circling around.

WITNESS McCULLEY: Yes, I do. And I think all of us in the industry and here in Washington are grappling with that question. And I come back to what I said in my opening comments.

The essence of banking is to create an asset for the public, which is the liability of the bank, that is informationally insensitive. If you have the FDIC label on it, it is informationally insensitive because it has the full faith and credit.

And the shadow banking system actually with commercial paper and repo became informationally sensitive.

COMMISSIONER HENNESSEY: Right. But even in the commercial banking world, it is partially sensitive because, at least before--

WITNESS McCULLEY: Right.

COMMISSIONER HENNESSEY: --we did guarantees, it was only partially guaranteed.

WITNESS McCULLEY: And that remains the case on term deposits. Obviously on transaction deposits--

COMMISSIONER HENNESSEY: So it's not all or nothing.

WITNESS McCULLEY: It's not all or nothing. It's a two-tiered structure. And the bottom line is, if you require a nonbank intermediary to have sufficient capital, then the theory is that the senior lenders to that institution, including in the commercial paper market, or more importantly in the repo market, will look at that balance sheet and say it's a fortress balance sheet, therefore I am comfortable being a senior lender; that the fortress balance sheet makes the senior short-dated liability of that institution informationally insensitive.

So that is the objective through capital requirements.

COMMISSIONER HENNESSEY: So the functional parallelism can be addressed on the capital side rather than by having the government guarantee liabilities for shadow banks? Is that the concept?

WITNESS McCULLEY: That is the concept, as well as having strong liquidity buffers for shadow banks, as well as conventional banks. So it's a belt-and-suspenders, that if you tell a shadow bank by regulatory powers that you will--

COMMISSIONER HENNESSEY: --on liquidity--

WITNESS McCULLEY: --be robust on capital, and you will be robust on liquidity, then you dramatically reduce the odds of a run.

And the problem for a run is that, once one institution is run upon, then you get effectively a contagion effect.

COMMISSIONER HENNESSEY: Okay. But then your functional parallel does not require the government to necessarily guarantee any of the--explicitly guarantee the liabilities of a shadow bank if they are sufficiently strong from a regulatory standpoint on both capital and liquidity requirements?

WITNESS McCULLEY: That is my interpretation, yes.

COMMISSIONER HENNESSEY: Okay.

CHAIRMAN ANGELIDES: Mr. Hennessey, can I just ask a quick question on your time that related to what you're talking about? Should I also--the capital and liquidity on one side must also be combined with some prudence on the asset side?

WITNESS McCULLEY: Certainly I think part of regulation, whether it's a conventional bank or a shadow bank, is having guidelines on what is a permitted and not a permitted asset.

So I said belt-and-suspenders. There needs to be a third one in this trio. So, yes, that. Regulation is about how much capital, how much liquidity, and what type of activities that you can engage in so as to ensure safety and soundness.

CHAIRMAN ANGELIDES: All right. I apologize. I just wanted--

COMMISSIONER HENNESSEY: Not a problem.

So, and I agree with what you were saying before with Peter, which is obviously if your shadow bank has access to the Discount Window, or something else, then you have to have the strong supervision of it. But the converse isn't necessarily the case?

What I hear you saying is, you do not have to provide shadow banks with access to the Discount Window, or an FDIC-like guarantee of liabilities, as long as you've covered your belt and suspenders and buckles? Is that--

WITNESS McCULLEY: Yes, I think that's right. It's important that you don't have to have mirror treatment from the standpoint of their liabilities. But you do have to have essentially a similar framework for capital, liquidity, and activities.

And then I come back to something that I know is important to you and everybody else, is that if a systemically important institution gets into trouble, that you can orderly unwind it so that if one house in the neighborhood goes down, you don't have a spreading of the fire through the entire neighborhood.

COMMISSIONER HENNESSEY: Okay. Good. Now let me take that, and let me zoom all the way out. Because as legislation is moving through the House and Senate, lots of elected officials like to say how the action they're taking is going to make sure this never happens again.

And what I always come back to is: What do you mean by "this"? And what it sounds like is, in this piecing together what I'm hearing from you, and what I've heard from the two Secretaries, is that we are not necessarily ending up in a situation where a large financial institution won't fail. Right? They may fail. You may have the resolution authority. You can still have runs on large financial institutions, if all of the regulatory protections and oversight you're talking about happen; it just won't spread to the rest of the system if what you've designed is robust? Is that the way to think about it?

WITNESS McCULLEY: I think that's a good way to think about it. We have seen a disorderly unwind of a systemically important institution, and that was ugly.

So that we want to avoid. And the architecture that's evolving should include, critically, a means to avoid that.

As Secretary Geithner was testifying, we can't outlaw failure in our system. In fact, in a capital system you don't want to outlaw failure. Capitalism is about winners and losers. And when you lose, you go broke and have a proper funeral. But you don't want to have that become a systemic event.

COMMISSIONER HENNESSEY: Let me get you--my time is running out--30 seconds?

CHAIRMAN ANGELIDES: Absolutely. You can take two. We're almost to the finish line.

COMMISSIONER HENNESSEY: On this point, I grimace every time I hear one of these elected officials say "never again." Because the way I think about this is that the actual goal should be to try and change this from a 1 in 30 year occurrence, to a 1 in 100 or 200, or 300, just because the efficiency costs of going to "never" are far too high.

Is that--I see some nodding here from Mr. Meier. Is that a better way to--understanding that they're all communicating for other purposes, is that a better way to think about it? That we're not trying to eliminate the risk of this happening again; we're trying to reduce it significantly without having the efficiency costs be too high? Mr. Neal?

WITNESS NEAL: It seems to me, if I think about this simply, to me the bright line is around resolution. Can a firm be successfully resolved, or not? I think if a firm can be successfully resolved--because I think what the Commission should not want to do is make financial services not a--you know, not a lubricant for the economy.

I think you want a vibrant financial services industry that competes in that regard. I think if a firm, for whatever reason, however it ultimately gets looked at, cannot be resolved because it's too interconnected, it's too global, it's too, something, maybe it's too damaging for its customers, I mean I think those are all things you might consider from that regard, then you would hold it to a standard that wouldn't allow it to need to be resolved in that regard.

I think regulation of financial services to where you don't have some of the excesses that took place maybe in some of these exotic products, maybe in some of these enormously high leverages that happened in some places, makes sense for everybody. But then when you get to that next step, to me again it's just--I'm just telling you my view--it really gets down to where a company, a firm can be resolved successfully, in which case I think they ought to be regulated, but regulated with a spirit of letting them compete.

COMMISSIONER HENNESSEY: Could we just here Mr. Meier?

CHAIRMAN ANGELIDES: Yes.

WITNESS MEIER: Thank you. Commissioner, I think if we manage to a perfection standard of "never again," of never having defaults, or the ability for even a systemically important institution to become insolvent, I think we've probably, to your point, reached the line of governance efficiency.

So I do think that it should be more along the lines of institutions can fail. What's the resolution of those failures?

And I think to a point made earlier, as well, in terms of the responsibility on the asset side, I said in my oral remarks that I do think there's a recognition that there needs to be more, I'm paraphrasing, but there needs to be more due diligence done on the part of investors, more risk analysis. And you can't outsource that to a credit rating agency.

I believe that that analysis and assessment needs to be done in-house. Because it doesn't speak just to the credit quality; it speaks to suitability.

COMMISSIONER HENNESSEY: Thanks. I think of this as what elements made the system so that it was not sufficiently hardened and insufficiently robust to withstand the shock; whereas, most of the rest of the focus has been about how do we make sure future shocks don't occur, and what elements caused the shocks to be damaging?

I think we need to focus on all of the above, but a system that's robust and hardened, so that when bad things happen because regulators are not going to be perfect in the future either, I think is one that is more survivable, basically. Thanks.

CHAIRMAN ANGELIDES: Thank you. Ms. Murren. And after Ms. Murren is done, I just have one thing to add into this little discuss, or a question.

Go ahead.

COMMISSIONER MURREN: Thank you.

Along this thread, but maybe getting down to the microscopic level and adding some color to it, if you reel back the tape to the fall of '08, from my recollection it was probably one of the more overwhelming and potentially frightening periods of time for corporate America.

So we have G.E., who has got a sterling reputation for management, good quality assets, a company that's in a diversified line of businesses. Could you comment on, at that particular moment in time, not with the benefit of hindsight, were you worried about the viability of G.E. Capital? And were you worried at the parent company level about your ability to finance the company going forward with long-term debt? And to what extent did you believe that the government ultimately, coming in to support the markets, helped you as a company with a great reputation to be able to weather this?

WITNESS NEAL: I would like to take that, if I can. Everybody was worried. As we progressed through September with the number of failures, we did a lot of contingency planning inside of G.E.

We had a lot of levers: a very strong company, the ability to raise capital, the cash position of the parent. The lever we haven't talked about a lot is the, in terms of just our survivability should the debt markets go away period--you know, it's hard to get your head there--but should it happen, we are a finance company. So, you know, we collect a lot of cash. We're a different model than some.

We collect about $100 billion a quarter of cash. So we would of had to lean into new origination, new business, if things had gotten bad enough. You know, extend less new credit as we collect obligations that are owed to us to build cash.

But we were never concerned about the viability of the company. The company is strong. The company had a very strong balance sheet through a very difficult time, particularly in terms of the stock price, just in terms of what happened. But we never, you know, foresaw a liquidity situation that we couldn't handle.

The way you handle it might not be that attractive in some cases. We did what we thought was prudent. We raised equity. We put it in the financial company. We cut the dividend back to the parent. Ultimately the parent reduced the dividend. These were painful actions in many ways.

And I think the never lever we would have--if again the markets were just gone, totally frozen, we would of had to extend less credit. The government programs that we participated in, while not designed for us, they were designed to stabilize the markets, and I think they did in a way that was enormously beneficial, and it benefitted us as well, as it did many others in that time, because this was a market phenomenon unlike any that I had imagined in that regard. But we would have gotten through it.

The G.E. Capital would probably be a smaller business in the future because of it, but I think what the government did was appropriate. I think in terms of TLGP, CPFF, these were money makers.

Now at the day one you might not know if it will be or not, but it turned out to be, in that regard. I think they did stabilize things. So you're asking a question about a game we didn't have to play in that regard. But we were ready. We thought about it. We had scenario planning. Some of it would have been difficult, but just to answer your question, Commissioner, I think we would have come through it. We're a very strong company with a very successful business model.

COMMISSIONER MURREN: A number of witnesses have made commentary about the feeling that they felt that they had been the subject of market manipulation, rumors in the market, those types of things. Did you at any point feel as though your company, your equities or debt, were ever the target of any kind of issues that might surround rumors in particular relating to G.E. Capital?

WITNESS NEAL: You know, just my view, and I've heard some of the previous testimony, again this is my personal view, you know, it's pack hunting when you're in the sights of some of these large hedge funds, and I think things do happen.

You know, sometimes it's real information. Sometimes it may be a rumor. I think anybody that was in financial services during that period of time that actually came under fire in that regard--we certainly did. We survived it. Some didn't, in that regard.

But I do think it’s those kinds of activities, we call it--I call it, you know, pack hunting. Because I think that that does happen. There are rumors. We certainly had our share. We had one where it was reported on TV that we had almost $50 billion of unmarked CMBS. We actually had less than $100 million, and it had been marked. But it was tough to undo it.

I don't know where it came from, but it was there. But things like that happen. You know, and if you get in a very difficult market, a very scary market for people, if you can get put into a position where there's no buyers of your stock, then the stock value can drop very quickly in that regard.

So I think things like that do happen. And, you know, I don't know if it's, you know--you know, I don't know how you could prove it in some cases, but I think we felt some of that, too.

COMMISSIONER MURREN: Thank you. Thanks to all of you for coming here. I appreciate it.

CHAIRMAN ANGELIDES: I know the Commissioners are probably anxious to go. We've had 16 hours over the last two days in this room with a lot of different people, but I do want to ask one--oh, go ahead, Mr. Hennessey.

COMMISSIONER HENNESSEY: Can I just report on two current events?

CHAIRMAN ANGELIDES: Absolutely.

COMMISSIONER HENNESSEY: One, a Senator on the Floor within about the past hour was asking why the Financial Crisis Inquiry Commission exists if the Senate is about to pass legislation, and suggested that maybe we should be disbanded. So I just add that into the discussion.

And then, would note that while the Dow closed down 3.1 percent today, at about 2:30 p.m. it was down nearly 1000 points, which as I remember it is a larger drop than on any single day in September of 2008. So back to my point about needing to be robust and able to withstand shocks, there are other shocks out there besides real estate.

CHAIRMAN ANGELIDES: And I assume you're assuming to the latter event, not the former event? The 1000-point drop, not the one Senator on the Floor?

(Laughter.)

COMMISSIONER HENNESSEY: Yes.

CHAIRMAN ANGELIDES: Okay, just to be clear.

I just had one, and it relates really to what you talked about shocks, because you talked about belts and suspenders, and what was the third thing, Keith? What was that phrase?

COMMISSIONER HENNESSEY: Buckles.

CHAIRMAN ANGELIDES: Buckles. But I heard you also say the fourth element of that. Not so much for the period of shock, but to keep liquidity in the market was the resolution authority. I just want to understand something.

It's important because you as a creditor want to be able to keep lending, and you want to have some certainty as to result, both in terms of priority and timing for disposition of your position. Correct?

WITNESS McCULLEY: Resolution authority, a robust one, is important because it provides assurance to the marketplace that a firm can be unwound in an orderly fashion with creditors taking losses but it doesn't create a contagion effect.

CHAIRMAN ANGELIDES: Right. But the difference between that and Chapter 11 would be certainty as to priority? Or would it also be, for example, some kind of assured DIP financing, Debtor In Possession, financing to carry it through so there's an orderly liquidation of the assets to retain as much value as possible?

You know, I'm just trying to get a simple answer, why that and not Chapter 11? Or Chapter 7?

WITNESS McCULLEY: We tried that with Lehman Brothers and it didn't work.

CHAIRMAN ANGELIDES: I can't remember the corporate section for liquidation, 13?

WITNESS McCULLEY: And there have been a number of proposals by scholarly, thoughtful people on this area.

CHAIRMAN ANGELIDES: But in simple terms, is it order priority, the time frame for resolution, as well as some funding mechanism so you don't have to dump assets quickly?

WITNESS McCULLEY: That is essentially the framework, including a mechanism through essentially the DIP financing to provide comfort to counterparties.

CHAIRMAN ANGELIDES: Right. This is all about comfort to counterparties, correct? So you'll continue to lend in reasonably. And who would provide the DIP financing?

WITNESS MEIER: Mr. Chairman, if I could answer your earlier question, I do think the resolution process, in terms of leveraged institutions with securities holdings that rely on say repurchase agreements, that that resolution would entail an orderly liquidation of those assets, as opposed to each fully secured counterparty grabbing their collateral and rushing to the market and dumping them at any price.

CHAIRMAN ANGELIDES: Right. Okay, I understand. So it's not necessarily DIP financing, because it's not an ongoing concern. Correct?

WITNESS MEIER: Yes.

CHAIRMAN ANGELIDES: All right.

WITNESS McCULLEY: There could be some type of temporary DIP financing, but it's simply temporary to bridge you to the day where the funeral is conducted.

CHAIRMAN ANGELIDES: And presumably it would be priced to attract whoever would provide it.

WITNESS McCULLEY: Yes.

CHAIRMAN ANGELIDES: All right. We could go on. Thank you very, very much, for your time. To the Commissioners, for your hard work.

And I want to, before we adjourn, I want to thank Chairman Chris Dodd and the staff of the Senate Banking, Housing and Urban Affairs Committee for giving us this room, and giving us the support necessary to hold these two days of hearings on the shadow banking system.

Thank you very much. The meeting of the

Financial Crisis Inquiry Commission is adjourned.

(Whereupon, at 5:05 p.m., Thursday, May 6, 2010, the meeting was adjourned.)