S. HRG. 112–100

REVIEWING THE FINANCIAL CRISIS INQUIRY COMMISSION'S FINAL REPORT

HEARING

BEFORE THE

COMMITTEE ON BANKING, HOUSING, AND URBAN AFFAIRS UNITED STATES SENATE

ONE HUNDRED TWELFTH CONGRESS

FIRST SESSION

ON

REVIEWING THE FINANCIAL CRISIS INQUIRY COMMISSION'S FINAL REPORT

MAY 10, 2011

Printed for the use of the Committee on Banking, Housing, and Urban Affairs

Available at: http://www.fdsys.gov/

U.S. GOVERNMENT PRINTING OFFICE

68–396 PDF WASHINGTON : 2011

For sale by the Superintendent of Documents, U.S. Government Printing Office
Internet: bookstore.gpo.gov Phone: toll free (866) 512–1800; DC area (202) 512–1800
Fax: (202) 512–2104 Mail: Stop IDCC, Washington, DC 20402–0001

COMMITTEE ON BANKING, HOUSING, AND URBAN AFFAIRS

TIM JOHNSON, South Dakota, *Chairman*

JACK REED, Rhode Island
CHARLES E. SCHUMER, New York
ROBERT MENENDEZ, New Jersey
DANIEL K. AKAKA, Hawaii
SHERROD BROWN, Ohio
JON TESTER, Montana
HERB KOHL, Wisconsin
MARK R. WARNER, Virginia
JEFF MERKLEY, Oregon
MICHAEL F. BENNET, Colorado
KAY HAGAN, North Carolina

RICHARD C. SHELBY, Alabama
MIKE CRAPO, Idaho
BOB CORKER, Tennessee
JIM DEMINT, South Carolina
DAVID VITTER, Louisiana
MIKE JOHANNS, Nebraska
PATRICK J. TOOMEY, Pennsylvania
MARK KIRK, Illinois
JERRY MORAN, Kansas
ROGER F. WICKER, Mississippi

DWIGHT FETTIG, *Staff Director*
WILLIAM D. DUHNKE, *Republican Staff Director*

CHARLES YI, *Chief Counsel*
GLEN SEARS, *Senior Policy Advisor*
LISA FRUMIN, *Legislative Assistant*

ANDREW OLMEM, *Republican Chief Counsel*
MIKE PIWOWAR, *Republican Senior Economist*
CHAD DAVIS, *Republican Professional Staff Member*

DAWN RATLIFF, *Chief Clerk*
WILLIAM FIELDS, *Hearing Clerk*
SHELVIN SIMMONS, *IT Director*
JIM CROWELL, *Editor*

C O N T E N T S

TUESDAY, MAY 10, 2011

REVIEWING THE FINANCIAL CRISIS INQUIRY COMMISSION'S FINAL REPORT

TUESDAY, MAY 10, 2011

U.S. SENATE,
COMMITTEE ON BANKING, HOUSING, AND URBAN AFFAIRS,
Washington, DC.

The Committee met at 10:05 a.m., in room SD–538, Dirksen Senate Office Building, Hon. Tim Johnson, Chairman of the Committee, presiding.

OPENING STATEMENT OF CHAIRMAN TIM JOHNSON

Chairman JOHNSON. I would like to call this hearing to order.

The Financial Crisis Inquiry Commission was created with the enactment of the Fraud Enforcement and Recovery Act in May 2009. During the debate on the bill, a partisan group of Senators, led by Senator Isakson, offered an amendment to establish a commission to examine the causes of the current financial and economic crisis in the U.S. The amendment was approved by a 92–4 vote.

The law creating the FCIC explicitly requires that the Chairperson of the Commission shall appear before the Committee on Banking, Housing, and Urban Affairs of the Senate regarding such reports and the findings of the Commission.

After culling through the thousands of documents, interviewing hundreds of key individuals, and holding over a dozen public hearings, the FCIC in January put forward a thorough and credible account of what went wrong. The factual findings of the final report echo what many other independent sources as well as the Committee have identified as key causes of this crisis, such as the widespread breakdown of basic protections for consumers, investors, and taxpayers.

Congress enacted the Dodd-Frank Wall Street Reform and Consumer Protection Act to address these problems, and it must be fully and properly implemented. The FCIC report shows that repealing or undermining Dodd-Frank, as some have proposed, would take us back to the same weak financial system that ushered in the worst economic crisis in generations and whose painful costs are still being felt.

Systemic risks would remain unsupervised; there would be no focused consumer watchdog; investors would be exposed to more Ponzi schemes; reckless financial firms would undermine those who played by the rules; taxpayers would be on the hook for more bailouts.

We cannot allow Dodd-Frank to be dismantled. As costly as the great recession has been, we simply cannot afford to go back to the old financial system that destroyed millions of jobs and cost the economy trillions of dollars. To do so would be dangerous and irresponsible.

I look forward to hearing from Mr. Angelides about the findings of the Commission so we can continue our work to make sure history does not repeat itself. I want to thank Mr. Angelides, all the Commissioners, and the staff for their hard work on this report.

I now recognize Ranking Member Shelby for any opening statement he may have. Senator Shelby.

STATEMENT OF SENATOR RICHARD C. SHELBY

Senator SHELBY. Thank you, Mr. Chairman.

Today, as you indicated, we will hear from Phil Angelides, Chairman of the Financial Crisis Inquiry Commission. The Commission's statutory mission was, and I will quote, "to examine the causes, domestic and global, of the current financial and economic crisis in the United States." The final report of the Commission was delivered to Congress in January. For some, the Commission's report represents a comprehensive record of the crisis. For me, it represents a missed opportunity.

Before the Commission was created, I called for this Committee to conduct a comprehensive investigation into the causes of the financial crisis. I believe that the American people deserve a full accounting of what happened. I also believe that such an accounting would lay a foundation for financial reform legislation.

As I have said many times, before Congress considered how to reform our financial regulatory structure, we should have first determined the underlying causes of the crisis. Without a comprehensive understanding of what went wrong, Congress would not be able to determine how our regulatory structure failed and what reforms were needed.

I noted that this Committee responded to the Great Depression by launching the so-called Pecora investigation. That investigation went on for more than 2 years and laid the foundation for groundbreaking legislation, including the Banking Act of 1933, which created the FDIC; the Securities Act of 1933; and the Securities and Exchange Act of 1934, which created the Securities and Exchange Commission.

Ultimately the Democratic majority refused to undertake such a Committee-led investigation. Instead, it created an independent Commission to examine the origins of the crisis and make recommendations on how to reform our financial system.

In the absence of a Committee effort, I reluctantly supported the creation of the Commission. If the Committee was not going to do this work, I believed at least someone should. Unfortunately, while the Commission worked, the Administration and the majority moved forward with financial reform legislation. Rather than help inform Congress, the Commission's findings were largely ignored as the Democratic majority drafted and passed over 2,300 pages of new law without a firm grasp of the facts behind the financial crisis.

Predictably, without a clear record to justify specific provisions, the Dodd-Frank legislation merely became a wish list of reforms long sought by liberal activists, special interests, and Federal bureaucrats. Today the costs and unintended consequences of Dodd-Frank continue to mount while the benefits of the legislation remain unclear.

Mr. Chairman, I believe that this Committee squandered a historic opportunity when it chose not to conduct its own inquiry. It only exacerbated that mistake when it decided to legislate before the Commission even had a chance to begin its work, let alone finish its report. And while it is unfortunate that the Commission was unable to reach a bipartisan consensus on its final report, it is more unfortunate that in the end it did not matter.

Thank you, Mr. Chairman.

Chairman JOHNSON. Are there any other Members who would like to be recognized for a brief statement? If not, I will remind my colleagues that we will keep the record open for 7 days for statements, questions, and any other material you would like to submit.

I will now introduce our witness for today's hearing. Mr. Phil Angelides served as the Chairman of the Financial Crisis Inquiry Commission. He was previously elected as California's State Treasurer and served from 1999 to 2007. As early as 2002, he warned of the excesses and abuses in the Nation's financial markets, mobilizing pension funds and investors across the country to push for reforms, fight fraud, and improve corporate governance.

Mr. Angelides, you are now recognized for 5 minutes to give your opening statement. Please proceed.

STATEMENT OF PHIL ANGELIDES, CHAIRMAN, FINANCIAL CRISIS INQUIRY COMMISSION

Mr. ANGELIDES. Thank you, Chairman Johnson, Ranking Member Shelby, and Members of the Committee. Thank you for your invitation to discuss the report of the Financial Crisis Inquiry Commission. It was my honor to chair the panel, which officially disbanded on February 13th of this year. I want to thank my fellow Commissioners and our staff for their service to our country.

Let me begin by noting that the financial crisis has been of no small consequence to our Nation. There are more than 24 million Americans who are out of work, cannot find full-time work, or have given up looking for work. About 4 million families have lost their homes to foreclosure, and millions more have slipped into the foreclosure process or are seriously behind on their mortgage payments. Nearly $9 trillion in household wealth has vanished. The budgets of the Federal Government and of State and local governments across the country have been battered by the economic tailspin precipitated by the financial meltdown. And the impacts of the crisis are likely to be felt for a generation, with our Nation facing no easy path to renewed economic strength.

In 2009, Congress tasked the Commission to examine "the causes of the current financial and economic crisis in the United States" and to probe the collapse of major financial institutions that failed or would have failed if not for exceptional assistance from the Government. We were true to our charge and we fulfilled our mandates.

Our task was to determine what happened and how it happened so we could understand why it happened. In doing so, we sought to answer this central question: How did it come to pass that in 2008 our Nation was forced to choose between two stark and painful alternatives: either risk the total collapse of our financial system and economy, or inject trillions of taxpayer money into the system and into private companies, even as millions of Americans still lost their jobs, their savings, and their homes?

In the course of our investigation, we reviewed millions of pages of documents, interviewed more than 700 witnesses, and held 19 days of public hearings. The Commission also drew from a large body of existing work developed by congressional committees, Government agencies, academics, and others.

The Commission's report contains six major conclusions:

First and foremost, we concluded that this financial crisis was avoidable. The crisis was the result of human action, inaction, and misjudgment, not Mother Nature. Financial executives and the public stewards of our financial system ignored warnings and failed to question, understand, and manage evolving risks within a system so essential to the well-being of the American people.

Second, we found widespread failures in financial regulation that proved devastating to the stability of our Nation's financial markets.

Third, our report describes dramatic breakdowns in corporate governance and risk management at many systemically important financial institutions.

Fourth, we detail the excessive borrowing, risky investments, and lack of transparency that combined to put our financial system on a collision course with catastrophe.

Fifth, we concluded that key policy makers were ill prepared for the crisis and that their inconsistent responses added to uncertainty and panic.

And, finally, we documented how breaches in accountability and ethics became widespread at all levels during the run-up to the crisis.

Our report, as well as the two dissents, can be found at our Web site, *www.FCIC.gov.* That Web site also contains approximately 2,000 documents; public testimony at our hearings; audio, transcripts, and summaries of more than 300 witness interviews; and additional information to create an enduring historical record of the crisis.

Conclusions aside, our report contains a valuable and accurate historical accounting of the events leading up to the crisis and the crisis itself. While Commissioners were not unanimous on all issues or on the emphasis placed on causes of the crisis, there was notable common ground among nine of ten Commissioners on a number of matters such as flaws in the mortgage securitization process, the presence of serious mortgage fraud, appallingly poor risk management at some large financial institutions, and failures of the credit rating agencies. Indeed, Mr. Thomas, Mr. Holtz-Eakin, and Mr. Hennessey stated in their dissent that they found areas of agreement with our conclusions. As just one example, nine of ten Commissioners determined that the Community Reinvestment Act was not a significant factor in the crisis.

Finally, you have asked me to comment on the Dodd-Frank financial reform law. With our inquiry and report completed and the facts in evidence, I believe that it is important speak to this matter. I believe that the law's financial reforms are strong and needed and that the law directly and forcefully addresses issues and conclusions identified in our report.

In the wake of this crisis, it is critical that the Dodd-Frank law be fully implemented, with sufficient resources for proper oversight and enforcement, to help prevent a future crisis. It is important for regulators and prosecutors to vigorously investigate and pursue any violations of law that have occurred to ensure that justice is served and to deter future wrongdoing. And it is essential that we focus our efforts anew on rebuilding an economy that provides good jobs for Americans and sustained value for our society—in place of an economy that in the years before the crisis was inordinately driven by financial engineering, risk, and speculation.

In conclusion, it is my hope that our report will serve as a guidepost in the years to come as policy makers and regulators endeavor to spare our country from another catastrophe of this magnitude.

Thank you. I look forward to your questions.

Chairman JOHNSON. Thank you for your testimony.

As we begin questioning the witness, I will ask the clerk to put 5 minutes on the clock for each Member's questions.

Mr. Angelides, would you briefly tell us what you found to be the most compelling finding in the report? Also, the Commission included a vast array of facts surrounding the crisis in their final report. Has anyone on or off the Commission disputed any of those facts?

Mr. ANGELIDES. Thank you, Mr. Chairman. Let me start with the second part of that question.

It has now been more than 3 months since the release of this report, and while clearly there was disagreement among Commissioners on certain aspects of the conclusions, I will say that one of the things that I think the Commission should be proud of is that, as to our factual accounting of the events leading up to the crisis and the crisis itself, this report—the facts of this report have stood. There have not been challenges to the factual accuracy of this report.

In fact, Mr. Holtz-Eakin, one of our members, said after the release of the report, he said, "What we will leave behind and what the staff in particular is to be congratulated for is an archive of extraordinary information of the testimony and the hearings, of the subpoenas and the documents we acquired. I believe that is the lasting legacy of this Commission."

So if you look at our report, I believe about 410 pages of the report is really the results of our investigation, the factual accounting of what occurred from the 1970s on, and particularly with emphasis on the 2007–08 time period. And it is a factual, accurate, historical accounting that has gone, to my knowledge, unchallenged in terms of that accuracy.

With respect to the most compelling findings, I think I would offer this: The report very strongly articulated the view that this was not, as some on Wall Street would have us believe, a perfect storm. This was not, as Mr. Blankfein said, an ill wind or a hurricane that blew from offshore. This crisis really was the result of human action, inaction, and misjudgment, and what was most striking to me is the number of warning signs that appeared along the road to disaster: the unsustainable rise in housing prices; the widespread reports of predatory and egregious lending practices, in fact, that appeared in the 1990s in Cleveland, Ohio, and many other communities across this country; the creation of $13 trillion of mortgage securities, many of which turned out to be wholly defective; the doubling of mortgage debt in this country; and the dramatic change in the risk profile of many of the large financial institutions that ultimately were deemed systemically important.

So I think for me the most compelling finding of this report was the avoidability of this crisis, and what accompanied it was a widespread breakdown in regulation, both gaps that existed as well as the failure of regulators to use their statutory authority, coupled with the reckless behavior of some of the largest financial institutions in this country.

Chairman JOHNSON. I am disappointed that there are some who seek to repeal or undermine the implementation of the Dodd-Frank Act, which was designed to fix what was broken in the financial system. Wouldn't repealing the Dodd-Frank Act increase our chances of having the same financial crisis that is described in your final report? Would you also explain why full Dodd-Frank implementation is important to fix the problems the report identifies?

Mr. ANGELIDES. Let me first say that the Commission itself was assiduous, as we undertook our investigation and as we did our research leading up to the release of our report in January, in a sense to focus on our work and our factual inquiry and not on the legislative debates occurring in this building. We knew we were given a job to do, and we focused on doing that job.

It was really only after the issuance of our report—and obviously after Dodd-Frank was signed into law—that I looked at essentially how our report matched up with Dodd-Frank. And let me just suggest to you that we identified a number of failures which the legislation addresses very directly and very forcefully.

Clearly, one of the items that we indicated—let me just give you a couple of examples in the area of supervision and regulation. One of the areas that we identified as a weakness were some of the gaps that had grown in the regulatory framework as our financial system had evolved over the 30 years from the late 1970s, early 1980s, to the time of the crisis, 2007–08. By the beginning of 2008, the shadow banking system, that system of lightly if regulated at all nonbank financial institutions, that that system now had about $13 trillion in assets; the regulated bank and thrift system had about $11 trillion in assets.

One of the things the Dodd-Frank bill does by creating the Financial Stability Oversight Council and providing it with the ability to monitor systemic risk and also to impose greater scrutiny and greater requirements on systemically important institutions, is it helps close up that gap in our regulatory framework that existed before the crisis.

Another example, I think, of where Dodd-Frank is important and responsive to the conclusions and the facts we laid out was that it empowered the Financial Stability Oversight Council, in fact, to act where it saw risk in individual institutions that could jeopardize the system as a whole.

Yet another example is the imposition of a new regulatory regime on credit rating agencies, and, of course, what I think is a seminal decision, to regulate the massive over-the-counter derivatives market that did play a role in the crisis of 2007–08. And with respect to that matter, what we found in our report was that credit derivatives themselves, the over-the-counter credit derivatives, did help fuel the mortgage securitization boom. We found that by virtue of the creation of synthetic CDOs, it helped amplify the effect of the housing bubble collapse. And at the end, as panic set into the markets and market participants had very little knowledge of what counterparty positions were, the general absence of information on over-the-counter derivatives fed the panic in the fall of 2008.

So those are just a couple of examples. I could go on, but just briefly I would say I certainly believe the reforms in the consumer protection area are important. Our report documents many, many instances where lenders made loans to borrowers who clearly did not have the ability to pay. We recount instances, for example, where mortgage brokers deliberately steer lenders into loans that are the most expensive for the borrower, not the best for the borrower. And so that is another aspect of the Dodd-Frank bill that is very responsive to our findings.

Chairman JOHNSON. Senator Shelby.

Senator SHELBY. Thank you, Mr. Chairman.

Mr. Chairman, the Commission's report concludes that the GSEs "followed rather than led" the private sector into subprime. But earlier this month, a prominent industry analyst, Michael Cembalest, who once shared that same view, issued a report in which he changed his opinion, and I would like to submit that for the record at this time. I will read just a few sentences, if I could put it in the record.

Quoting Mr. Cembalest, the analyst, "In January 2009, I wrote that the housing crisis was mostly a consequence of the private sector. However . . . what emerges from new research is something quite different: Government agencies now look to have guaranteed, originated, or underwritten 60 percent of all 'nontraditional' mortgages, which totaled $4.6 trillion in June 2008. What's more, this research asserts that housing policies instituted in the early 1990s were explicitly designed to require U.S. Agencies to make much riskier loans, with the ultimate goal of pushing private sector banks to adopt the same standards."

Senator SHELBY. Mr. Chairman, because this analyst was presented with the same research available to you—I hope it was the same—and found it credible enough to change his position, why have you not changed your position—or have you?—on the GSEs' role here? Did they follow or did they lead?

Mr. ANGELIDES. They followed, and I would like to speak about that for a few minutes.

Senator SHELBY. OK.

Mr. ANGELIDES. And let me say, Senator Shelby, that we spent an enormous amount of time on this issue, and I will just tell you, as someone who had come from the private sector immediately before my appointment and spent more than half my career in the private sector, I did not come into this inquiry with a preconceived notion of the extent of Fannie and Freddie's involvement in this crisis. So——

Senator SHELBY. Well, obviously this gentleman did not either because he agreed with you, and then with more data he changed his mind. I am just——

Mr. ANGELIDES. Maybe I could re-persuade him. So let me start by saying this was an area in which at least there was some agreement—not total agreement—between nine of ten Commissioners. The dissent filed by Mr. Holtz-Eakin, Mr. Thomas, and Mr. Hennessey said Fannie Mae and Freddie Mac did not by themselves cause the crisis, but they contributed significantly.

What we found is we found that they were not a primary cause but they did contribute, so let me talk for a few minutes about what we found and how we did our analysis because I think this is important.

We took a deep-dive look at the GSEs, and the way we conducted our inquiry because of our budget and time, we selected 10 institutions for in-depth investigations, institutions like Merrill Lynch, Countrywide, Goldman Sachs, and we looked very intensely at Fannie Mae, even though we also looked a good deal at Freddie Mac. And let me start by saying that there is no question that the GSEs were a disaster. To date, they have cost the taxpayers more than $151 billion, so let us get that off the table.

Senator SHELBY. Thus far.

Mr. ANGELIDES. This did not go well. They had a flawed business model, which, I might add, in some ways was eventually emulated by firms on Wall Street, the privatizing of gain and the socializing of loss. They were of significant scale in the marketplace so they mattered. They used their political power to ward off effective regulation. They clearly ramped up their purchasing and guarantee of the riskiest loans in 2005, 2006, and 2007 as the market was peaking, and they did have corporate governance failures of a magnitude of other major Wall Street firms. But here I think are some very important points.

First of all, the GSE mortgage-backed securities, because the marketplace believed there was this implicit, which became explicit, Government guarantee, if you look at their valuations starting in about January 2007 all the way up to the day before they are put into conservancy, the value of mortgage-backed securities purchased or guarantees by the GSEs did not decline during that period. You know, they were around 98, 99, 100, 102.

The reason I mention that—and I think this is a technical but important point—is these securities did not cause the losses that manifested themselves on Wall Street in 2007 and 2008, the big losses at Merrill and Citi that were brought about by the market value declination of subprime securities those institutions were holding. So I think that is important to keep in mind. They did not begin the stampede of losses on Wall Street. Those were caused by the private label securities.

With respect to whether they followed or led, here is what we found. They clearly participated in the expansion of subprime and other risky lending, but when they purchased private label securities, they purchased the highest rated portions of those securities, and they never represented a majority of the purchases. In 2001, they were 10.5 percent of the purchases of subprime private label securities. By 2004, they were up to 40 percent. But by 2008, they fell back to 28 percent.

We reviewed thousands of documents, and what we found is that they upped their investments in subprime and risky loans in the 2005 to 2007 period to regain market share that they had lost to Wall Street, to respond to the expectations of analysts, and, frankly, to ensure generous compensation for their executives.

But most importantly, here is something we did that we hope—again, conclusions aside—will lead to, I think, good analysis of what occurred.

We took a look at about 25 million loans that had been securitized in the marketplace by Wall Street and other non-Fannie, Freddie firms, by Fannie and Freddie, and by FHA, and what we found is that those loans that were securitized by Fannie and Freddie did perform significantly better than the private label securities. Now, because there were a lot of them, it clearly had an impact. But just to put this on the record, apples-to-apples, the Fannie and Freddie securitizations performed exceptionally better than the private label Wall Street securities.

For example, if you take borrowers who have credit scores below 660, by the end of 2008, the private label securities packaged by Wall Street had default rates of 28 percent. For a similar set of borrowers with the same credit scores, the default rate of Fannie and Freddie loans were about a little over 6 percent, I believe, 6.3 percent. So the worst of the loans, the most toxic loans, in fact, were done by the non-GSE entities first, and then the magnitude, or the lack of quality was most striking.

So, again, we believe they contributed, but they did not lead this charge.

Senator SHELBY. Mr. Chairman, I have one question, then I have others——

Mr. ANGELIDES. Sure.

Senator SHELBY. ——I will submit for the record, if I could. The Commission's Vice Chairman, former Congressman Bill Thomas, raised several concerns about the partisan nature of the Commission, and I would like you to address some of them. How many days' notice, for example, did Commissioners get prior to votes on motions, and was this different for Republican Commissioners versus Democratic Commissioners? We have been told that it was. How many days' notice did Commissioners get prior to the final vote on findings and conclusions, and was this different for Republican Commissioners versus Democratic Commissioners? And why were the minority views excluded by a partisan six-to-four vote from the report and restricted in the commercial book? I think those are important, because, Mr. Chairman, we are looking for a bipartisan deal here, as you well know.

Mr. ANGELIDES. Good. Good questions. So let me start off and talk just about process for a few minutes, and let me say, again, at the end of the day, the bulk of this report is, I believe, a historical accounting which I hope and believe will be of extraordinary use to your Committee as well as the American public, and I hope, frankly, regulators——

Senator SHELBY. We hope so, too.

Mr. ANGELIDES. ——regulators, and I will say, also, I hope prosecutors read this book and take a look at it, because we had a limited budget, limited time——

Senator SHELBY. A close look, right?

Mr. ANGELIDES. Hmm?

Senator SHELBY. Prosecutors ought to take a close look.

Mr. ANGELIDES. They should, and the fact is we had limited time, limited resources. We could open a number of doors. We opened those doors and I hope the prosecutors and regulators walk through those doors.

But I want to talk about process because this is important. First of all, I want to answer very specific questions that you asked. We had a—for most of our tenure, we had a 7-day notice rule for all agendas and the process would be that I would propose an agenda and the Vice Chairman would have a chance to look at it and amend that and then it was sent to Commissioners.

Now, near the end of the process, Mr. Ranking Member Senator Shelby, we shortened that, and I do not believe the vote was a split vote, I believe to a 48-hour notice because of all the kind of hurdles we had to go over to get to production of that report. And so the fact is we did have agendas that were available and materials were made available to Commissioners at the same time.

Now, during the course of this, there were a couple of instances where members made proposals the day before or during Commission meetings consistent with the agenda, and I might say that that happened both ways, where—and I am sure this happens in this Committee, where Members will say, I want to offer this or I want to offer that. But it was equal opportunity in terms of process, and I just want to say flatly that is the case. We——

Senator SHELBY. You referenced the Committee, so I want to——

Mr. ANGELIDES. OK.

Senator SHELBY. I have been on the Committee 25 years and I can say under both Democrats and Republican chairmen that my recollection is that it has been one of fairness both ways on this Committee, and I believe it will always be.

Mr. ANGELIDES. Well, and I want to say this. Every member had the full opportunity to attend and participate in every meeting and to raise issues that they wanted pursued, and some members were—some were more aggressive than others. For example, Mr. Wallison always had ideas about things we should pursue, and obviously we had to balance matters, but we did our best to balance every member's desire to probe areas. Every member had the opportunity to attend hearings.

All materials were made available at the same time to all members, and in fact, for example, we had an interview grid that was available—we had a Commissioner work space. Any Commissioner could look at that. They could tell the staff people they thought ought to be interviewed, interviews they wanted to participate in.

All drafts of the report, every single one was made available to every member at the same time. We started to roll out Commission chapter drafts in about July and in earnest in about September and every Commissioner got those. Some took advantage of commenting; others did not.

And I might add that all staff per the statute, really, I think, that came out of the Senate, all staff had to be approved by the Chairman and the Vice Chairman. So with respect to kind of equality of opportunity, fairness of the process, I do not think there is any question that this was an extremely open and fair process while there are ultimately some policy disagreements.

Now, with respect to the matter of dissents, we accorded every member, all 10 members, the ability to file a dissenting or additional view. In fact, those who signed the report, you know, for example, had they not been fully satisfied with the conclusions, had that opportunity, also. And just as a rule of reason, we accorded every Commissioner—we looked, by the way, at the whole history of what other commissions had done. We accorded every Commissioner nine pages in the commercially printed version and we allowed members to combine them so they chose. In addition, I shall say, we placed no limit on what could be placed on our electronic version on the Web and no limit in what could be put in the GPO version.

Now, Mr. Thomas, Mr. Holtz-Eakin, and Mr. Hennessey chose not to use any additional space on the Web or in the Government Printing Office edition. Mr. Wallison did take advantage of that extra opportunity.

Senator SHELBY. Thank you, Mr. Chairman.

Chairman JOHNSON. Senator Reed.

Senator REED. Thank you very much, Chairman Johnson, and Chairman Angelides, thank you and your colleagues for, I think, an extraordinary bit of work. And the more I have the opportunity to listen to you, I think a lot of it is a tribute to your mastery of detail and your extraordinary efforts over the course of these many months, so thank you for your personal contribution.

Mr. ANGELIDES. Thank you, sir.

Senator REED. Lately, other reports have come online, and I am just wondering if you have been aware of them and if you agree. For example, Senators Levin and Coburn, their Permanent Subcommittee on Investigations has just released a report about "The Anatomy of the Financial Collapse: Wall Street and the Financial Crisis." Have you been—are you aware of that? Some of their conclusions suggest that there were market participants that anticipated the crisis, were, in fact, shorting some of these products at the same time they were selling the products to the public, and it also raises issues that you raised with respect to whether some of these large institutions actually understand the risks they are undertaking. So if you could just generally comment on your reaction to the Levin-Coburn report and on anything else, Mr. Chairman.

Mr. ANGELIDES. Absolutely. Let me start with my observations about the Levin-Coburn report. I believe that they did an excellent job. I must admit, I have not read the totality of it, but I am well into it. I look forward to the day when I can start reading nonfinancial documents, but the minute they put that out, I was back—they sucked me back in.

The first thing I want to say is because, again, we had limited time, limited resources, we looked forward to the report of the Permanent Subcommittee because what we wanted to be able to do was build on the work of other entities, and as you know, while the final report came out this year, a lot of their information was available during the year. And, in fact, strategically, we also decided to the extent that the subcommittee was producing information, we would use their information in our analysis rather than reinvent the wheel. So, in a sense, it was an effective tag team.

By way of example, while we both looked at the activities of Goldman Sachs, they focused a lot of their efforts on Washington Mutual. Therefore, we focused one of our in-depth investigations on Countrywide. Where in the matter of the credit rating agencies they spent a lot of time with Standard and Poors, we decided, because they had built a lot of information in that regard, we would focus more of our attention on Moody's to kind of complete the picture.

So first and foremost, if you look at our report, you will see a lot of references to Senate documents produced by that investigation.

I do think that if you look at the two reports, they are very complementary, not of each other, but complementary in the sense that the conclusions reinforce each other. We, too, found, obviously, practices of market participants where on one hand they were selling securities into the marketplace very aggressively, often without proper disclosures, at the same time that they were shorting those same instruments. Now, they would take the position that they were being simply market makers, but what our investigation revealed, and I believe the investigation of the Senate subcommittee revealed, is that in many respects they were more than marketmakers. They were shorting on their own account.

What we found, and I believe what the Senate investigation also indicated, is while they were selling securities in the marketplace, they were not making the kind of disclosures about what they knew and about what their activities were. So that is one area, clearly, where there was some symmetry and some synergy.

I also ought to say that both reports catalogued the extraordinarily risky practices that were undertaken by some institutions. In the course of our investigation, we catalog how Countrywide makes riskier and riskier loans. We cataloged in our investigation how they lower their lending standards. We catalog how they build-up their portfolio of option ARM loans to a really extraordinary level, by the way, at the same time that the number of option ARM loans that Countrywide is making, I think 1 percent of them are negatively amortizing in 2004. I think something like 53 percent are negatively amortizing by 2006, and 90 percent by 2007. But as they undertake these activities, Mr. Mozilo and other executives are warning that these very practices, and I believe these are their words, have the possibility of bringing on financial and reputational catastrophe for the company, but they keep on going.

And I believe if you look at the Senate subcommittee's investigation of Washington Mutual, you see the same pattern, extraordinary risk going on while the executives at some level understand or at least recognize the level of risk and they do nothing to stop it.

Senator REED. Well, my time has expired, Chairman, but again, let me thank you. And also, I think what you underscore is at least the question about whether markets are so efficient that they always self-correct and always self-regulate. I think we have an example here where very successful, apparently, business leaders were powerless, really, to stop because of many motivations, even things they thought were reckless, and there were no regulators to stop them, either, so it just continued to deteriorate. So I think it underscores the need for balanced regulation.

Mr. ANGELIDES. Well, and I just want to—I know your time has expired, but Mr. Chairman, if I might, just one brief comment, and that is that——

Chairman JOHNSON. Proceed.

Mr. ANGELIDES. As I said, I have spent the majority of my career now in the private sector, and so I think one of the greatest engines is the private enterprise system and the ability to take risk and to succeed and to fail. Where I think there is difference here is that the financial system is so elemental to the stability of the overall economy and particularly the large systemically important institutions have such a ripple effect on the financial system and the economy as a whole, I do think this is one area where we have to have the kind of adequate oversight to ensure stability. This is one place where we do want to curb excess risk because of the systemic implications, both to the system and to the economy as a whole.

Senator REED. Thank you, Mr. Chairman. Thank you.

Mr. ANGELIDES. Thank you, Senator.

Chairman JOHNSON. Senator Wicker.

Senator WICKER. Thank you, Mr. Chairman, and thank you, Mr. Angelides. I appreciate you being with us today.

I am a bit struck by your testimony about Dodd-Frank being responsive to the findings of your Commission in several respects. As a matter of fact, your Commission reported on January 27, 2011, and Dodd-Frank was enacted in 2010, so the authors of Dodd-Frank would have to have been clairvoyant to be responsive to those findings.

But I would like to ask about one area in which perhaps Dodd-Frank failed to look into the future very well and divine what your findings would be, and I quote from page Roman numeral XXV of the conclusions, where your Commission states, "We conclude the failures of credit rating agencies were essential cogs in the wheel of the financial destruction. The three credit rating agencies were key enablers of the financial meltdown. The mortgage-related securities at the heart of the crisis could not have been marketed and sold without their seal of approval. Investors relied on them, often blindly. In some cases, they were obligated to use them." And then continuing on, the Commission states flatly, "this crisis could not have happened without the rating agencies."

And so let me ask you, in light of this finding, are you disappointed in the very tepid treatment that Dodd-Frank gave to the rating agencies?

Mr. ANGELIDES. By the way, and let me thank you, Senator. Let me also say this is one area where at least the three Republican members who filed their dissent agreed with us that the rating agencies substantially contributed to the creation of toxic financial assets.

I believe this is an area where we can do more, and I will say I believe, and correct me if I am wrong, that Dodd-Frank does have a study in it with respect to the selection of rating agencies by issuers. I believe it is one of the study items in the legislation.

Senator WICKER. Indeed, yes. That was substituted in place of the Franken-Wicker Amendment——

Mr. ANGELIDES. Correct. Oh, was that your amendment?

Senator WICKER. ——which would have been much stronger.

Mr. ANGELIDES. Oh, along with Senator Franken? Well, I will just say this, and now I speak personally. I am an advocate of trying to break the issuer rating relationship, which I believe is fundamentally at the heart of many of the conflicts we saw. And so I am glad that the legislation has the study. I would urge this Committee and I would urge others to take the next step, and as that study is completed, take whatever action is necessary legislatively or regulatory to break that link——

Senator WICKER. Well, I——

Mr. ANGELIDES. ——between issuers and ratings. So——

Senator WICKER. OK. Well, thank you for that——

Mr. ANGELIDES. ——and one thing, Senator, just on—I guess it is your time, so I will say it after.

Senator WICKER. No, go ahead. It is just that we only have the 5 minutes, so——

Mr. ANGELIDES. All right. Well, and that is I would also——

Senator WICKER. You have a right to complete your answer.

Mr. ANGELIDES. Well, I would hope, also, that one of the things that could be looked at is the model used to be of credit rating agencies that you had essentially subscriber pays. And at the end of the day, somehow, we have got to move, in my view, toward a model where the investors themselves are paying because those are the folks for whom the ratings are supposedly to benefit.

Senator WICKER. Well, I think you and I are in bipartisan agreement that a lot needs to be—a lot more needs to be done on the issue of the rating agencies.

Briefly, in the time we have, what do you think about the fact that there are no real standards, no real working structure to classify mortgage instruments into basic categories, such as prime or subprime or the more intermediate alt-A category? Do you think there is some benefit to be gained from establishing such classifications and categories?

Mr. ANGELIDES. I believe it is hard to do legislatively. I think it can be done regulatorily. And if my memory serves me, Dodd-Frank does have some provisions about—I cannot remember the exact term, whether it is high-quality mortgages are specified in the legislation, but some categorization, I think, is sensible. I think it has to be done at the regulatory level and it ought to be done by one single entity.

Senator WICKER. OK. Thank you.

Chairman JOHNSON. Senator Brown.

Senator BROWN. Thank you, Mr. Chairman, and Chairman Angelides, thank you for joining us.

Thank you for the part of your report that described the growth of risky and subprime mortgages in Cleveland and the work of then-Treasurer Jim Rokakis in alerting the public and others to that and the incredible devastation it caused, and I appreciate your discussion of it and analysis of it.

A section of the report is devoted to financial sector growth, and you allude to this problem in other chapters. As my fellow Members of the Committee know, we have seen a huge change in our economy in the last 30 years. Manufacturing some 30 years ago made up about 25 percent of our GDP. It now makes up about 11 percent. Financial services made up about 11 or 12 percent 30 years ago and now makes up 21.5 percent. So we have seen really a flip in position of financial services and manufacturing, and we know in terms of a ticket to the middle class what manufacturing has meant. We know what has happened with financial services.

President Bush's Treasury Secretary John Snow told the Commission, "We have a lot more debt than we used to have, which means we have a much bigger financial sector. I think we overdid finance versus the real economy and got a little lopsided as a result." But it does not appear during the process of your hearings and since the report that much has changed. And prior to that, in 2006, finance companies made 27 percent of the corporate profits in this country. The fourth quarter of last year, the financial industry accounted for about 30 percent of corporate profits.

What are the implications ongoing, Chairman Angelides, what are the implications between this imbalance between finance and manufacturing, but more precisely between finance and just the rest of the economy?

Mr. ANGELIDES. Well, thank you very much for asking that question, because I will tell you that the further I get away from the issuance of our report, I believe this is one of the most fundamental issues. And, in fact, you just cited from page 66 of our report this phenomenal growth, 15 percent of corporate profits coming from the financial sector in 1980, growing to over 30 percent in the 2000s. The amount of debt being taken on by financial companies versus nonfinancial companies, it goes from, I think in 1978, $13 in debt for financial companies for every $100 for nonfinancial companies, companies producing services and goods, to $51 for financial companies for every $100 for nonfinancial companies by 2007, increasing the amount of debt emanating out of the financial sector.

And let me be blunt, Senator. I think this is a problem. I think in many respects, the financial sector became the master, not the servant, of the economy.

I came into this position after some 20 years in the private sector with this quaint notion that the financial system was there to deploy capital to build enterprises, create jobs in the United States. I was shocked at the extent at which it had become a gambling parlor. And unlike Claude Raines, I was truly shocked at the level of gambling going on on Wall Street. And I do think postcrisis that our policy emphasis has to be back on how you build a real economy of sustainable wealth.

We had a very robust debate in our Commission about the effect of the credit bubble. But I will say this. The greatest tragedy of the last decade and a half is that we used all that foreign investment, all that cheap money, to create $13 trillion of phony mortgage securities, not to create jobs and enterprise in this country, and I do think at the heart that is our most enduring challenge today.

And when you talk about the deficit, you cannot ignore the fact that between the mid-2000s and postcrisis, the Federal deficit ballooned by about a trillion dollars annually. When you take diminution in revenues and the measures that have been adopted on a bipartisan basis, take away the stimulus on which there has been debate, two-thirds of that $1 trillion annual deficit is due to this financial crisis. So I think, at this point, it is the heart of the question.

Senator BROWN. Thank you. Thank you, Mr. Chairman.

Chairman JOHNSON. Senator Hagan.

Senator HAGAN. Thank you, Mr. Chairman, and Mr. Angelides, I really do appreciate you being here and I appreciate the hard work you did on this Commission. It was——

Mr. ANGELIDES. Thank you, Senator.

Senator HAGAN. I do appreciate that. One of the conclusions that the Commission reached, as you were saying, sort of, that was the key policy makers were ill-prepared for the crisis and that their inconsistent responses added to the uncertainty and panic during the crisis. And it would seem to me that this conclusion would support strong leadership at the heads of our banking regulators. When you look at the range of financial regulators, we have a number of key posts today that are unfilled or are filled with temporary appointments. This is despite the fact that a number of qualified candidates have been put forward. Can you comment on how you think having these vacancies and temporary appointments might impact our ability to successfully implement the Dodd-Frank bill and our ability to manage through a financial market downturn?

Mr. ANGELIDES. Well, let me just say, first of all, about our finding. I think in many respects, this is one of our most significant findings, and I would also say one of our most disturbing findings, because what it really said was that as the crisis begins to unravel in 2007 and 2008, we have a situation where Treasury, then headed by Mr. Paulson, the Federal Reserve, then headed by Mr. Bernanke, and the Federal Reserve Board of New York, headed by Mr. Geithner, in many respects did not have the knowledge, had not asked the questions, had not kept up with the evolution in the financial system that allowed them to see the nature of the crisis that was unfolding. And so a lot of the response was a finger in the dike response because of the lack of information that even the public stewards of our system had.

In that context, having leaders who are in place who are knowledgeable, combined with a level of data and information and, frankly, constant questioning by policy makers and regulators is fundamentally important. And I will say that both gaps in knowledge and gaps in leadership could be fatal. In this instance, it was near-fatal. Now, at the end of the day, these leaders, to their credit, were able to scramble, and at a tremendous cost to the American taxpayers were able to stabilize the system. But what was most striking is the extent to which those in charge did not have the knowledge. That can only be exacerbated by the lack of people in positions to carry out the mandates.

Senator HAGAN. Both the Commission's report and the dissenting views cite the mortgage market as a source of systemic failures that led to the crisis. However, you reached the conclusions that the Government housing policies were not a significant factor in the crisis. How do you reconcile these two conclusions, which appears at the time to be at odds with one another?

Mr. ANGELIDES. All right. So let me take these—I mean, when we talk about Government housing policies, we were very, I think, very specific. Rather than just saying ideologically, do you think they do or they did not, we looked at each specific policy. Our conclusion, I think, with the mortgage interest deduction, it had been around for decades. That is not something that had changed, even though it is a legitimate policy driver for consumption of housing, and some would argue over-consumption of home ownership.

We looked very specifically at the Community Reinvestment Act, and you will note that we looked at a number of studies. We also made document requests and follow up of several major institutions. And in the end of the day, it appeared that only about 6 percent of the high-cost loans, which would be a proxy for subprime loans, were made—were related in any way to the CRA. And when you looked—and, of course, many of the biggest subprime lenders—Ameriquest, New Century—were not even subject to the CRA. So we did not find a correlation there and that was supported by nine of ten Commissioners.

We looked in great depth at the affordable housing goals of Fannie and Freddie and we interviewed, I believe, about 50 folks. Only two of the people—and by the way, those are people at Fannie, Freddie, HUD, FHFA, OFHEO, and also other market participants—and I believe in the end of the day, only two of those individuals thought that those affordable housing goals were primary drivers.

But we also did analysis of the losses at Fannie and Freddie, and they were by no means the predominant locus of the losses. In fact, at those institutions, while the goals were 50 percent or below, which I believe is from 2004 and before, everyone pretty much said Fannie and Freddie could meet those goals in their ordinary course of business. When the goals got above 50 percent in 2005, it did put pressure on them and they did start making targeted loans for affordability which did have an impact.

But by no means, if you look at the numbers which are in our report, I believe pages 185 to 187—I know this is bad that I know all these numbers, but I have read it a lot—you will see actual data about how much of the losses are attributable to those affordable housing loans. They were not the drivers. They were at the margin.

The one thing I would say, though, in the end, is that the public rhetoric around home ownership in some aspects ended up providing cover for activities that were pernicious. And, I mean, one of the real tragedies of this crisis is that in the end, it was not even about adding more home owners to our Nation. One of the most striking facts I came across in our investigation, which was right out there and obvious, is the home ownership rate in this country actually peaked in the spring of 2004. So all that terrible lending in the end of 2004, 2005, 2006, and 2007 did not even add home owners in this country. It was, in a sense, ground cover for what became very pernicious activities.

Senator HAGAN. I am sorry. How does it not add to——

Mr. ANGELIDES. From 2004 on, our home ownership rate peaked in the spring of 2004. The worst lending really happened in the end of 2004, 2005, 2006, 2007. So the notion that all this mortgage lending was adding to home ownership was false. It just was not. It was feeding speculators. It was helping people refinance their homes. It was not, in the end, adding to new home ownership in this country. I mean, that is one of the real tragedies of this crisis. There was not even a good, in the end, public policy driver or rationale for what occurred.

Senator HAGAN. Recently, the Treasury Department, the Center for American Progress, the American Enterprise Institute, and others, they have all released proposals on housing finance reform. Could you give us your thoughts on these proposals and what do you see as the important features of housing finance reform that will ensure that housing does not contribute to a future crisis?

Mr. ANGELIDES. I cannot say that I have seen—I have had a chance to read the Treasury report. Are you talking about on the future of Fannie and Freddie?

Senator HAGAN. Yes.

Mr. ANGELIDES. I cannot tell you that I have seen the Center for American Progress report. And, you know, I will just make a short observation on this. I would not posit myself as the expert. I do think there is a legitimate but well-defined and focused role for governmental support for the housing finance sector. But I think it has to be finite, specific, well defined, constrained. And I just want to say what I believe everyone—not everyone, but we should certainly understand this model of a publicly traded, profit-driven institution carrying out public policy that we had in Fannie and Freddie, with the implicit and then explicit guarantee of the Federal Government along with all the subsidies that went with it—that model should never be replicated. But for decades, we had a relatively steady State model where we did provide ballast for the housing finance sector, and it worked relatively well.

There is just one quick note. During the course of our testimony—and the Committee may want to look at this—Professor Dwight Jaffee of the University of California, Berkeley, told us that one of his research students had uncovered papers at the Johnson Library in Austin in which there was a very robust debate back in 1968 where, when Lyndon Johnson wanted to spin Fannie Mae out of the U.S. Government because of the balance sheet of the Government—we were running a deficit at the time, and he did not want that, and the proposal was to create a private entity, a Government-sponsored enterprise. The folks who were asked to look at it said, you know, this could be very risky because at the end of the day they will have all the ability to take the upside and the taxpayers will be left with the downside, and that should never be replicated.

Chairman JOHNSON. Senator Merkley.

Senator MERKLEY. Thank you very much for your testimony and for your hard work on this Commission. I wanted to ask you to expand a little bit on the issue of State preemption and how that kind of was interwoven into this.

When I was a State legislator, I was pursuing trying to take on some practices in the last decade related to prepayment penalties, steering payments, undocumented loans, and largely preemption, as it was applied to the States, prevented us from being able to do more than regulate State banks, which created kind of an unlevel playing field issue that was difficult to overcome.

I believe that the OCC has played a significant role in pushing these issue of preempting States from being able to regulate on a variety of issues, and could you kind of explore this a little bit for us?

Mr. ANGELIDES. Yes, I can. And, in fact, this is a matter, Senator, with which our report deals in some detail. And essentially, as we know in the 2003–04 time period, the Office of the Comptroller of the Currency as well as the Office of Thrift Supervision moved very aggressively to preempt State efforts to regulate unfair lending practices of national banks and thrifts, and it had a very significant effect.

We received a lot of testimony on this matter. I think what is quite striking is between 2000 and 2003 States were very active in this arena in trying to curb abusive predatory lending, and they were doing so really because of the absence of action by the Federal Reserve.

There was a legitimate policy argument for Federal preemption with respect to national banks and thrifts, but what really should have happened in my view at that time is instead of the Feds just moving in to preempt States, they should have entered into essentially joint action with the States so collectively they were going after both the national thrifts who were engaged in unfair and predatory lending, while the States joined with them in going after State-regulated institutions. And a significant portion of the problem loans were, in fact, being initiated by national banks and thrifts, and at least by our review, after the preemption, I think it is fair to say the OCC and the OTS tied the hands of the States and then sat on their own hands.

It would have been different had they preempted and then aggressively pursued, which they did not do.

Senator MERKLEY. So one piece of this certainly was in mortgage lending, but there were also these unmargined derivatives essentially that related to risks ranging from the up and down of oil futures to other complex financial derivatives in the credit default swap world.

Do you see the issue as mainly the impact mainly happening around mortgages or also in this other area?

Mr. ANGELIDES. Well, a significant impact in the mortgage arena. There is just no question about that.

By the way, can I add one other thing on the mortgage arena? This was made worse by the fact that the Federal Reserve that was the one entity that had the full authority to write rules that applied to every mortgage lender, whether they were State charter or federally chartered, did nothing. In 2001, in the wake of information about growing predatory lending practices, the Fed did adopt some rules under HOEPA, which was a law passed by the Congress in 1994. Those rules, at the time it was projected they would cover 38 percent of subprime lending. They were so weak that they covered 1 percent.

When we questioned Mr. Greenspan about this, he said, well, the solution is—and, by the way, it was not until 2006 that the Fed actually issued voluntary guidance to national banks and thrifts about subprime lending, and it was not until July 2008 when the system was collapsing on itself that they finally adopted a rule to say you cannot lend to people who cannot afford to take the loan.

Now, Mr. Greenspan at the time said, well, the solution was not more regulation; it was law enforcement. And when we looked at the records, the Federal Reserve referred only three unfair lending cases to the Department of Justice from 2000 to 2006: a small bank in Carpentersville, Illinois; a small bank in Victorville, California; and the New York branch of Societe Generale. So they stopped the States, and then they did nothing.

With respect to derivatives, the 2000 law was pretty clear that it forbade regulation of over-the-counter derivative instruments by both the Federal and the State governments. I cannot remember what year it was—I think it was 2000 or 2001—that the New York Department of Insurance issued a ruling that, in fact, confirms their inability to regulate naked credit default swaps as insurance instruments. And certainly with respect to AIG, that ends up being a very significant phenomenon.

Senator MERKLEY. Thank you.

Chairman JOHNSON. We will proceed to a short second round.

In your report, the Commission wrote, "The Federal Reserve's pivotal failure was to stem the flow of toxic mortgages which it could have done by setting prudent mortgage lending standards. The Federal Reserve was the one entity empowered to do so, and it did not."

Would you please discuss how consumer protection was an afterthought for Bank regulators and why an independent agency focused solely on consumer protection would help prevent another crisis?

Mr. ANGELIDES. Just on this matter—and I addressed it in my remarks to Senator Merkley, and that is that I do believe this was a pivotal failure. The Federal Reserve had substantial information about the nature of loans that were being made. In fact, it was not just the information they had in the late 1990s and early 2000s, but in 2005, they commissioned their staff to take a look at what was happening in the marketplace, and they took a look at the practices of large lenders—the largest mortgage lenders. And I remember, I believe at the time, that the results in terms of what they were finding was quite astounding. If you would give me just 1 second, Senator.

I believe they found in 2005, page 105, they found that—well, I am not finding it right now, and I do not want to take your time. But they found of the largest mortgage lenders, they found, for example, I believe, that 59 percent of Countrywide's loan originations were nontraditional loans. They took a look at the biggest lenders, and it was stunning, the extent to which they had moved away from prudent lending. And they had a lot of information. They never acted. As I said, it took about a year from that study in 2005 for them even to get the voluntary guidance out the door. And then it took Mr. Bernanke coming in and issuing the new rules in July of 2008.

It was on their screen, and they just did not act, and I do think that part of the reason was the nature of the Federal Reserve is they did not—that really was not their focus. That really was not what they were built to do. And so I do think there was an absence of attention to consumer protection. And I do believe an independent consumer protection entity within the Federal Reserve can be very helpful in at least focusing attention on abuses in the marketplace and the rising problems in that marketplace.

Chairman JOHNSON. Senator Shelby.

Senator HATCH. Thank you.

It seems to me from what we have learned from your report and what we have learned from hearings and other investigations that the Federal Reserve and the other regulators—not just the Federal Reserve as regulators—basically failed the American people. Is that fair, Mr. Chairman?

Mr. ANGELIDES. Yes, and I want to say something very directly. We found there were gaps, Senator.

Senator SHELBY. That is right.

Mr. ANGELIDES. And so I want to say this: We found there were gaps, and there is no question that there were large regulatory gaps. But also where regulators had the authority, they did not use it.

Senator SHELBY. They had it but they did not use it, right.

Mr. ANGELIDES. Yes. The SEC could have reduced risk and increased capital and liquidity at the investment banks. They did not do it. The Federal Reserve Bank of New York could have reined in the excesses of Citigroup. They did not do it. So, yes, I think it was a dual phenomenon of regulators not exercising the power they had as well as very specific gaps that did exist that precluded both oversight as well as the ability to stabilize the situation.

Senator SHELBY. So while the bank crisis grew underneath their feet, they continued to sleep in a sense or look the other way, however you want to describe it.

Mr. ANGELIDES. I think our report is very clear on that, yes.

Senator SHELBY. And you agree with that.

Mr. ANGELIDES. Yes, sir.

Senator SHELBY. Let me get into another area of loans, down payments, and so forth. Did you in your investigation or the Commission's get into the area of where loans were made with, say, nothing down, for example, or a concoction of borrowing the down payment, you know, some way, with a second mortgage, or 3 percent down as opposed to 5 percent down, 10 percent down, 20 percent down, and the rate of foreclosures in these categories?

For example—I do not know this. This is just anecdotal, but perhaps you do. But if someone paid 20 percent down, real equity in a bona fide transaction, the chances, it would seem to me, of a foreclosure would be much smaller than 3 percent down or 0 percent down and so forth. Did you get into this area? And if you did not, why did you not?

Mr. ANGELIDES. So, yes, here is——

Senator SHELBY. Do you see where I am going?

Mr. ANGELIDES. Yes. Well, here is how we did it, and I will have to refresh my memory on all the various places throughout this report.

Senator SHELBY. Would you furnish, share some of this for the record of the Committee?

Mr. ANGELIDES. I certainly could.

Senator SHELBY. But go ahead.

Mr. ANGELIDES. If you would give me the chance——

Senator SHELBY. Absolutely.

Mr. ANGELIDES. ——on the plane home tonight to course through this.

Senator SHELBY. Yes, sir.

Mr. ANGELIDES. But there are a couple of things we did. Throughout the report we catalogued the frankly grotesque deterioration of mortgage lending standards in terms of what kinds of loans were being made over a period of time. And, in fact, just on that point, I am going to just give you one little section.

You know, for example, on page 107, we talk about Countrywide's option ARM business. You know, those are the loans where you did not even have to pay enough to cover the interest. Those loans that began to grow up——

Senator SHELBY. It is like those kinds of loans were a recipe for a disaster.

Mr. ANGELIDES. Yes.

Senator SHELBY. And the regulators should have realized that.

Mr. ANGELIDES. Well, yes, and, you know, in fact, one of the reasons they went from the OCC as a regulator to the OTS as a regulator—which Dodd-Frank does deal with, got rid of that regulatory shopping opportunity. But, you know, the OCC was beginning to have concerns; the OTS was not. But as an example, Senator, by the second quarter of 2005, 25 percent of all its loans, Countrywide's loans, were option ARM by the second quarter of 2005.

Senator SHELBY. By option ARM, just for the record, explain that because you are talking to the American people here.

Mr. ANGELIDES. Yes. That is a loan where the borrower does not even—can decide to pay less than—it is not even an interest-only loan. You can pay less than the interest, so your balance is growing. They are the most dangerous kinds of loans.

Senator SHELBY. And that is a time bomb, is it not?

Mr. ANGELIDES. It is kind of like a time bomb.

Senator SHELBY. A financial time bomb.

Mr. ANGELIDES. But, for example, they decided in July 2004 they would lend up to 90 percent of homes' appraised value, up from 80 percent. They reduced minimum credit scores to as low as 620. In early 2005——

Senator SHELBY. Who approved or looked the other way as this was going on? Who approved these kind of loans?

Mr. ANGELIDES. Well, first of all, the Fed looked the other way. They had a lot of this information, and they did not act. And the two bank regulators, OCC and OTS, did not act. And in particular in this case, Countrywide moved from the OCC/Fed to the OTS——

Senator SHELBY. Looking for the weak regulator.

Mr. ANGELIDES. Well, yes. And, in fact, very specifically they make the move because internal e-mails say: You know what? OCC and Fed are beginning to get concerned. Let us move over to the OTS because OCC is being too tough now on appraisals and it could, quote-unquote, kill the business; and the OCC and the Fed are beginning to get uncomfortable with these option ARM loans.

So in this instance, it was the Fed, the OCC, and the OTS.

Senator SHELBY. Can I go back to a question I asked a minute ago?

Mr. ANGELIDES. Oh, I apologize. Yes.

Senator SHELBY. For example, if there is nothing down, in some of the stuff you describe, we know that is a financial disaster waiting to happen. What about if it is 3 percent down? Can you furnish this for the record, if you could? What are the percentage of foreclosures there as opposed to 5 percent down or 10 percent down or 20 percent down? I think this would be interesting. In other words, the less people have in the game, the less skin or money they have in the game, the chances are toward a default?

Mr. ANGELIDES. So let me say, as I said—and I got a little specific there. Throughout the book we do catalogue the deterioration in lending standards, and I will have to look at how we then correlate that to default rates. I mentioned earlier to you in the context of Fannie and Freddie how we had looked at a basket of 25 million loans. What I am aware of is we also took that data and sliced it into, I think, about 500-some buckets of different kinds of loans—one that had lower down payments, ones that had high loan-to-value ratios.

What I will have to look at, Senator, is how finely we broke down what kinds of loans had what kinds of default rates, and so if I could swing back to you on that. I know that we did look at those big buckets I told you, which——

Senator SHELBY. That is forensic financial accounting, but that is good.

Mr. ANGELIDES. Let me see what we did on that, how far we broke it down. [Ed.: *Please see, http://www.gpoaccess.gov/fcic/fcic.pdf* to refer to the Committee's request for further information: (1) "Page 110 re: delinquencies among borrowers with 'piggyback' loans"; (2) "Pages 111, 222, and 402 re: the performance of mortgage loans included within our case study mortgage-backed security CMLTI 2006-NC2"; (3) "The first subchapter of Chapter 11 of the report, entitled 'Delinquencies: The Turn of the Housing Market' commencing on page 214, with specific reference to Figure 11.2 on page 217."]

Senator SHELBY. You mentioned President Johnson's concern way back where we create a hybrid where you socialize the risk—that is, it sits in the taxpayer's lap, like it is today, Fannie and Freddie—and privatize the profits. That is a dangerous situation, is it not?

Mr. ANGELIDES. Yes.

Senator SHELBY. So that is what we have in Fannie Mae and Freddie Mac except now we do not have an implicit guarantee, we have an explicit, because Fannie and Freddie are sitting in the taxpayer's lap right now. Is that correct?

Mr. ANGELIDES. Correct.

Senator SHELBY. OK. Thank you.

Mr. ANGELIDES. Except the profit motive part of that has been wiped out because of the conservancy.

Senator SHELBY. Thank you.

Chairman JOHNSON. Senator Hagan, do you have a quick question?

Senator HAGAN. Thank you, Mr. Chairman.

Mr. Angelides, as you know, the Dodd-Frank left a number of rules and regulations to implement, and when you think about the work that is being done right now by the regulators, what areas, just for example, do you think would require the most monitoring and attention by Members of this Committee in our oversight role?

Mr. ANGELIDES. OK. Let me make one broad statement, then maybe a couple specific comments.

One broad statement, and I do think it is a significant issue, again, as someone who has been in both the private and the public sector, I think having sufficient resources and talent in your regulatory entities to oversee this very fast moving, very quickly evolving industry is important. I have said—and I do not mean this disrespectfully, but Wall Street is a little bit like a greased pig. They move fast, they are hard to catch. And this is a conversation I had with Chairman Bernanke. Making sure sufficient resources are available at these regulatory entities I think is fundamentally important. But also making sure pay scales, career opportunities are such that we can attract talent to those regulatory entities is one of the biggest challenges, and I think one that has not yet been fully met. So I would focus on the resource issue generally.

With respect to very specific areas that require attention, I would think that particularly the derivatives area, because we are talking about taking a massive market that grew to $600 trillion in notional value, the over-the-counter derivatives market, and now the CFTC, the Commodity Futures Trading Commission, has the Herculean task of moving that market to publicly traded exchanges. And that will be a large job, and it is one that requires, I think, very significant attention. And I would hope that the nature of oversight is not obviously to constrain regulators but to push them along, make sure they are meeting deadlines and making sure they have the resources to do their job.

The other area, I think, that is worth focusing on is, you know, as you know—and you probably hear this in your districts often or your States—people have a level of frustration about why have there been no prosecutions, where has the justice been. And obviously we do not want hangman justice in the United States, we do not want vengeance, but we do want people to know that the justice system is for all, that there is not a dual system of justice, one for people of wealth and power and one for everyone else. And we want to make sure deterrence is in place.

So another area, I think, of oversight is on the enforcement side. One of the things that happened in the S&L crisis was that regulators were very active partners with prosecutors in identifying potential wrongdoing, in a sense being their sherpas. And I do think it is an appropriate role for this Committee to have oversight on enforcement efforts to make sure that justice is being done and deterrence is in place. And when you look at actions that are being taken and the nature of settlements that often are pennies on the dollar with no admission of wrongdoing, I think that is a legitimate area for oversight as to whether you are satisfied as elected representatives of various States in this country that enforcement is as a fulsome as it needs to be.

Senator HAGAN. Thank you.

Chairman JOHNSON. Senator Merkley.

Senator MERKLEY. Thank you very much, Mr. Chair.

I want to explore a little bit what you term in your report "the CDO machine," and certainly throughout the 2 years I have served on this Committee, CDOs have come under a lot of discussion, and kind of a piece of the puzzle that I was not familiar with was the retention of the higher AAA portions of the CDOs by banks because of their lower capital charges.

Indeed, there has been a lot of discussion of the fact that an investment bank would buy the lower tiers, combine them, reissue the mortgage securities into CDOs, and then CDOs squared, if you will, because doing so would transform and create a whole new set of AAA-rated securities that produced a tremendous amount of profit. Certainly the main fundamental justification of this was geographic diversity. However, there has been a lot of discussion of the credit rating agencies not really having the information to recognize they all suffered from the same critical flaw, which was 2-year teaser rates.

But the broader issue that I want to ask you to comment on is the role of buying one's own securities in terms of creating artificial demand to drive the market or kind of creating certain conflicts of interest along the way. And this is relevant as we look down the road here because there is a discussion of kind of how to treat securities under the issue of proprietary trading under Dodd-Frank. And on one level, it sounds like a very, very complicated, troublesome machine, which elements could be re-created that cause all sorts of trouble. On another level, it is, like, hey, here are securities that are often AAA rated, what is the issue? So just your thoughts.

Mr. ANGELIDES. Oh, boy. Well, first of all, what did happen during this crisis is, you know, the whole notion of securitization was it was supposed to spread the risk. It was supposed to create diversification in a number of ways. First of all, in the instruments themselves, as you said, they were supposed not to be correlated, and the original CDOs that came in the marketplace actually were instruments that were composed of different kinds of assets: auto loans, airplane leases, mortgages. So, in fact, they were supposed to be uncorrelated. If one went bad, it was not likely that another would go bad.

When the mortgage securities started to be created, they were assumed to be not highly correlated, and, of course, they end up being extraordinarily correlated, both geographically and in the type of mortgages that were contained within. And what you also had a phenomenon—so, you know, risk was supposed to be dispersed in that way.

The other way risk was supposed to be dispersed was that the large financial institutions would securitize these, sell them to investors across the world. Well, what starts happening in 2006 and 2007 is institutions like Citigroup and Merrill Lynch cannot sell the most super senior tranches of these CDOs because the yields are too low, and they certainly cannot sell them at par, which is interesting because they booked them at par even though they could not sell them at that. And I think that is another whole issue. They were in a sense booking their profits and earnings as if they were worth $100 when they were worth less.

But they end up retaining these on their books as they are trying to offload, frankly, the riskier stuff. They cannot offload the, quote-unquote, super senior super safe, and they thought it is OK, we will keep these because they do not have much risk. Well, in fact, when the whole market came apart, I believe Citigroup had built up an exposure of some $50-plus billion, as had Merrill Lynch, and when the market value of subprime securities plummet, they take enormous losses. In 2007, each institution takes more than $20 billion in losses.

So it is a legitimate area of inquiry to examine what these major money centers, systemically important institutions are holding on their books and what the real risks associated with them are.

Is that responsive?

Senator MERKLEY. Yes. It is kind of the beginning of a much more in-depth conversation. Thank you.

Mr. ANGELIDES. But for me that was one of the more—I mean, I think for us in the Commission, I think it is one of the most significant pieces of information here, is how those institutions ended up in a sense holding onto those and, you are right, with very little capital standards because they were, quote-unquote, super senior and super safe. But their market valuations were dramatically hit, and, you know, they took enormous losses, which really are the losses that began the ripple effect, the unraveling of the financial crisis in 2007 and early 2008.

Senator MERKLEY. Thank you.

Chairman JOHNSON. I hope today's hearing equips us with a better understanding of the financial crisis so that we can work together to make sure history does not repeat itself. As costly as the great recession has been, we simply cannot afford to go back to the old financial system that destroyed millions of jobs and cost the economy trillions of dollars.

Thanks again to my colleagues and our panelist for being here today. This hearing is adjourned.

Mr. ANGELIDES. Thank you, Senator Johnson, and thank you, Members of the Committee.

[Whereupon, at 11:32 a.m., the hearing was adjourned.]

[Prepared statements, responses to written questions, and additional material supplied for the record follow:]

PREPARED STATEMENT OF PHIL ANGELIDES

CHAIRMAN, FINANCIAL CRISIS INQUIRY COMMISSION

MAY 10, 2011

Chairman Johnson, Ranking Member Shelby, and Members of the Committee, thank you for the invitation to discuss the report of the Financial Crisis Inquiry Commission. It was my honor to chair the panel, which officially disbanded on February 13 of this year. I want to thank my fellow Commissioners and our staff for their service to our country.

Let me begin by noting that the financial crisis has been of no small consequence to our Nation. There are more than 24 million Americans who are out of work, cannot find full time work, or have given up looking for work. About 4 million families have lost their homes to foreclosure and millions more have slipped into the foreclosure process or are seriously behind on their mortgage payments. Nearly $9 trillion in household wealth has vanished. The budgets of the Federal Government and of State and local governments across the country have been battered by the economic tailspin precipitated by the financial meltdown. And, the impacts of the crisis are likely to be felt for a generation, with our Nation facing no easy path to renewed economic strength.

In 2009, Congress tasked the Commission to examine "the causes of the current financial and economic crisis in the United States," and to probe the collapse of major financial institutions that failed or would have failed if not for exceptional assistance from the Government. We were true to our charge and we fulfilled our mandates.

Our task was to determine what happened and how it happened so we could understand why it happened. In doing so, we sought to answer this central question: How did it come to pass that in 2008 our Nation was forced to choose between two stark and painful alternatives—either risk the total collapse of our financial system and economy—or inject trillions of taxpayer dollars into the system and into private companies—even as millions of Americans still lost their jobs, their savings, and their homes?

In the course of the Commission's exhaustive investigation, we reviewed millions of pages of documents, interviewed more than 700 witnesses, and held 19 days of public hearings in New York, Washington, DC, and in communities across the country. The Commission also drew from a large body of existing work developed by congressional committees, Government agencies, academics, and others.

The Commission's report contains six major conclusions:

First and foremost, we concluded that this financial crisis was avoidable. The crisis was the result of human action, inaction, and misjudgment, not Mother Nature. Financial executives and the public stewards of our financial system ignored warnings and failed to question, understand, and manage evolving risks within a system so essential to the well-being of the American public.

Second, we found widespread failures in financial regulation that proved devastating to the stability of the Nation's financial markets.

Third, our report describes dramatic breakdowns in corporate governance and risk management at many systemically important financial institutions.

Fourth, we detail the excessive borrowing, risky investments, and lack of transparency that combined to put our financial system on a collision course with catastrophe.

Fifth, we concluded that key policy makers were ill prepared for the crisis, and that their inconsistent responses added to uncertainty and panic.

And finally, we documented how breaches in accountability and ethics became widespread at all levels during the run-up to the crisis.

Our report, as well as the two dissents, can be found at our Web site, *www.FCIC.gov*. That Web site also contains approximately 2,000 documents; public testimony at our hearings; audio, transcripts, and summaries of more than 300 witness interviews; and additional information to create an enduring historical record of the crisis.

In addition to the major causes we identified, the Commission determined that collapsing mortgage-lending standards, the flawed mortgage securitization pipeline, over-the-counter derivatives, and the actions of the credit rating agencies contributed significantly to the financial meltdown.

The Commission also investigated, among other things, whether the crisis was caused by excess capital availability and liquidity; the activities of Fannie Mae and Freddie Mac; and Government housing policies. We concluded that excess liquidity, by itself, did not need to cause a crisis, and that Fannie Mae and Freddie Mac contributed to the crisis but were not a primary cause. We determined that Government housing policies were not a significant factor in the crisis.

Conclusions aside, our report contains a valuable and accurate historical account of the events leading up to the crisis and the crisis itself. While commissioners were not unanimous on all issues or on the emphasis placed on causes of the crisis, there was notable common ground among nine of ten commissioners on a number of matters such as flaws in the mortgage securitization process, the presence of serious mortgage fraud, appallingly poor risk management at some large financial institutions, and failures of the credit rating agencies. Indeed, Mr. Thomas, Mr. Holtz-Eakin, and Mr. Hennessey stated in their dissent that they found areas of agreement with our conclusions. As just one example, nine of ten commissioners determined that the Community Reinvestment Act was not a significant factor in the crisis.

Finally, you have asked me to comment on the Dodd-Frank financial reform law. With our inquiry and report completed and the facts in evidence, I believe that it is important speak to this matter. I believe that the law's financial reforms are strong and needed, and that the law directly and forcefully addresses issues and conclusions identified in our report.

In the wake of this crisis, it is critical that the Dodd-Frank law be fully implemented, with sufficient resources for proper oversight and enforcement, to help prevent a future crisis. It is important for regulators and prosecutors to vigorously investigate and pursue any violations of law that have occurred to ensure that justice is served and to deter future wrongdoing. And, it is essential that we focus our efforts anew on rebuilding an economy that provides good jobs for Americans and sustained value for our society—in place of an economy that in the years before the crisis was inordinately driven by financial engineering, risk, and speculation.

In conclusion, it is my hope that our report will serve as a guidepost in the years to come as policy makers and regulators endeavor to spare our country from another catastrophe of this magnitude.

Thank you. I look forward to your questions.

RESPONSES TO WRITTEN QUESTIONS OF SENATOR SHELBY FROM PHIL ANGELIDES

Q.1. For each of the following individuals, please state whether the Commission or staff conducted interviews with them. If so, please explain why the audio files, transcripts, and/or notes for these interviews are not posted on the Commission's Web site. If not, please explain why the Commission did not conduct an interview with each of those individuals.

a. James A. Johnson (Fannie Mae CEO, 1991–1998)
b. Franklin Raines (Fannie Mae CEO, 1999–2004)
c. Leland Brendsel (Freddie Mac CEO 1987–2003)
d. Gregory Parseghian (Freddie Mac CEO 2003–2003)
e. Mark Kinsey (Acting Director OFHEO 1997–1999)
f. Brian Montgomery (FHA Commissioner 2005–2009)
g. John C. Weicher (FHA Commissioner 2001–2005)
h. William Apgar (FHA Commissioner 1998–2001)

A.1. Response not provided.

Q.2. The Commission's statutory mission is "to examine the causes, domestic and global, of the current financial economic crisis in the United States." However, the *Financial Times* notes that the final report "suffered from lack of global context." How do you respond to this criticism?

A.2. Response not provided.

Q.3. Commissioners Keith Hennessey, Doug Holtz-Eakin, and Bill Thomas ask four important questions in their dissenting statement. Please respond to each of them.

a. If the political influence of the financial sector in Washington was an essential cause of the crisis, how does that explain similar financial institution failures in the United Kingdom, Germany, Iceland, Belgium, the Netherlands, France, Spain, Switzerland, Ireland, and Denmark?
b. How can the "runaway mortgage securitization train" detailed in the majority's report explain housing bubbles in Spain, Australia, and the United Kingdom, countries with mortgage finance systems vastly different than that in the United States?
c. How can the corporate and regulatory structures of investment banks explain the decisions of many U.S. commercial banks, several large American university endowments, and some State public employee pension funds, not to mention a number of large and midsize German banks, to take on too much U.S. housing risk?
d. How did former Fed Chairman Alan Greenspan's "deregulatory ideology" also precipitate bank regulatory failures across Europe?

A.3. Response not provided.

Q.4. According to a recent *Financial Times* article, Commissioner Douglas Holtz-Eakin said that the absence of a bipartisan consensus in the final report was "a great failure." What specific facts and conclusions did the Commissioners disagree on?

A.4. Response not provided.

Q.5. According to the *Financial Times,* a big problem with the final report is "a high level of inconsistency." The report concludes that the crisis was "avoidable." However, report spreads the blame across a laundry list of factors, such as widespread failures in financial regulation, failures of corporate governance and risk management at financial institutions, excessive borrowing, lack of transparency, inconsistent Government responses to the crisis, and an erosion of standards of responsibility and ethics. Was the crisis "avoidable?" Or, was it caused by a wide-ranging set of disparate factors?

A.5. Response not provided.

Q.6. One of the Commission's statutory functions is "to refer to the Attorney General of the United States and any appropriate State attorney general any person that the Commission finds may have violated the laws of the United States in relation to such crisis." Did you refer any person to any Federal or State law enforcement agency? If so, did any of those referrals result in any enforcement actions?

A.6. Response not provided.

Q.7. Many people have argued that the repeal of Glass-Steagall was a major cause of the financial crisis. The final report discussed the repeal of Glass-Steagall, but it did not draw any conclusions. How did you determine that the final report should be silent on whether the repeal of Glass-Steagall was a major cause of the crisis?

A.7. Response not provided.

Q.8. The Commission's Vice-Chairman, Congressman Bill Thomas, raised several concerns about the partisan nature of the Commission. I would like you to address some of them. Please respond to the following.

a. How many days notice did Commissioners get prior to votes on motions? Was this different for Republican Commissioners versus Democrat Commissioners?

b. How many days notice did Commissioners get prior to the final vote on findings and conclusions? Was this different for Republican Commissioners versus Democrat Commissioners.

c. Why were minority views excluded by a partisan 6–4 vote from the report and restricted in the commercial book?

A.8. Response not provided.

Q.9. In previous Congressional testimony, you said that Dodd-Frank's "financial reforms are strong and needed, and the law directly and forcefully addresses issues and conclusions identified in our report." What is the single most important conclusion in your report? How does Dodd-Frank specifically address that single most important conclusion?

A.9. Response not provided.

Q.10. The Commission's Vice-Chairman Bill Thomas said in Congressional testimony "Regarding the Dodd-Frank Act, I do believe that our work has shed light on a number of problems in our financial markets that have not been sufficiently addressed, as well as cases of regulatory overreach where the financial and economic crisis was used as cover to regulate activities that had little to do with the financial crisis." What is the most important problem identified in your report that was not addressed by Dodd-Frank? What is the most prominent case of regulatory overreach in Dodd-Frank?

A.10. Response not provided.

Q.11. The Commission has been criticized for conflicts of interest on the part of Commission staff. For example, multiple staff members, including the executive director, were detailed from the Federal Reserve and have since returned to the Fed. Since the Commission investigated the Fed's role in the crisis, it appears that these employees had a conflict of interest. Were any Commission staff detailees or former employees of any banks that the Commission investigated? If not, why did you ignore the same type of conflicts of interest by allowing Fed employees to serve on the Commission's staff?

A.11. Response not provided.

RESPONSES TO WRITTEN QUESTIONS OF SENATOR REED FROM PHIL ANGELIDES

Q.1. On April 29, 2011, the Department of the Treasury announced its intention to exempt foreign exchange swaps and forwards from the scope of the Dodd-Frank Wall Street Reform and Consumer Protection Act. Do you have an opinion on this intended action?

If so, please explain.

A.1. Response not provided.

Q.2. The FCIC's Report referred to certain accounting and reporting practices as "window dressing." Do you believe that the regulators and accounting profession have sufficiently dealt with this practice? Why or why not?

A.2. Response not provided.

Q.3. Do you believe that auditors could have provided advanced warning to investors or others of issues or practices that were the subject of the FCIC's report?

Why or why not? If you believe they could or should have, but did not, what policy changes would you recommend?

A.3. Response not provided.

ADDITIONAL MATERIAL SUPPLIED FOR THE RECORD

STATEMENT SUBMITTED BY PETER J. WALLISON, ARTHUR F. BURNS FELLOW IN FINANCIAL POLICY STUDIES, AMERICAN ENTERPRISE INSTITUTE

Chairman Johnson, Ranking Member Shelby, and Members of the Senate Banking Committee:

Thank you for the opportunity to submit written testimony in connection with today's hearing on the work of the Financial Crisis Inquiry Commission. I regret that a prior commitment prevents me from appearing in person. I was a member of this 10-member commission, and dissented from the Commission majority's report. In this testimony, I will outline the substance of my dissent and explain why I believe a dissent was necessary.

Before turning to the substance of my dissent, however, I would like to comment on how the Commission was organized and run.

The Commission's Process

The financial crisis was an unprecedented event, possibly the worst financial breakdown in U.S. history, and will be studied for years by historians, economists and other scholars in the hope of understanding what caused it and how similar events can be avoided. From the beginning of the Commission's substantive operations, however, it was not run as the serious, objective investigation that it should have been. Instead, it focused only on a narrow set of issues, and never succeeded in providing the data and the perspectives that might have been helpful to future scholars and policy makers. It is all too common that the reports of special Government investigative commissions like the FCIC are shelved and never seen again. But this Commission's work, I'm sorry to say, fully deserves that treatment.

I have had some limited experience with Government commissions, including the 1976 Rockefeller commission study of the CIA's activities in the United States, but I have never seen a Commission as badly organized and run as this one. Since there has always been great uncertainty about what caused the financial crisis, I expected that, at the outset of the Commission's work, the members would have had an opportunity to discuss what they thought were the most important issues for the staff to investigate. If I had made a list at that time, it would have included many of the ideas—hypotheses, I would have called them—that were widely discussed in public debates and for that reason alone deserved to be looked into in detail. These included the possibility that the crisis was caused by (i) easy Fed monetary policy in the early 2000s; (ii) a flood of funds from abroad looking for high returns; (iii) the repeal of a portion of the Glass-Steagall Act; (iv) mark-to-market accounting; (v) Government housing policies and the role of the Government-sponsored enterprises; (vi) the growth and collapse of an unprecedented housing bubble; (vii) lack of or insufficient regulation, (viii) interconnections among financial institutions, and many others. My initial view was that many of these hypotheses were not factors in the crisis, but I thought they should be investigated so that the Commission could provide to Congress, scholars and the American people the best answers that a thorough and objective investigation could reveal.

As it turned out, the members of the Commission never had an opportunity to discuss these issues, or to have any influence at all on the direction the Commission took in its inquiry and ultimately in its report. According to my records, in the 18 months the Commission was in operation, there were only 12 meetings at which the members of the Commission could exchange views on the causes of the financial crisis. Of these meetings, only six were day-long sessions. The only time that the Commission members sat around a table to discuss the causes of the crisis occurred during 3 days in early September, well after the discussion could have had any effect on the direction of the investigation.

The members were appointed in July 2009 and the first few months of the Commission's existence were spent in hiring the staff and establishing the basic rules for how the Commission would operate. By the late fall of 2009, we were ready to begin the substantive portion of the Commission's work. This would have been the point at which several days of discussion among the members about the causes of the financial crisis would have turned up agreements and disagreements that might have shaped and broadened the subsequent investigation. However, there was never a time during this period when the members were invited to sit around a table and consider what issues the Commission would actually investigate.

Instead, in early December, we were given a list of monthly public hearings that the Commission would conduct virtually through the end of its tenure. The list included hearings on subprime lending, securitization and the GSEs, the shadow banking system, credit rating agencies, complex financial derivatives, excessive risk and financial speculation, too big to fail, and macroeconomic factors. Many of the items in this list qualified as important issues, but to schedule them as public hearings in advance made no sense. The hearings should have been shaped by what was turned up in the investigation, not function as the drivers of what the Commission would study. There was a pervasive sense that a serious investigation was being sacrificed to the publicity that could be wrung from public hearings. Moreover, since the work of the staff was inevitably going to be devoted to preparing for the hearings, establishing a list of hearings in advance threatened to reduce both the amount and the scope of the Commission's investigative work.

In practice, this meant that a large number of important issues were not to be addressed in any detail by the Commission. There was just no time for the staff to prepare for the hearings and also do a thorough investigation. As a result, the Commission majority's report shows the superficiality of its work in many important areas. For example, the discussions of the role of monetary policy and the flow of investment funds from abroad—two possible causes of the financial crisis that have drawn a lot of attention from scholars—are no more detailed than newspaper or magazine articles; no new data is provided and no conclusions are presented. Instead, the Commission majority reserved their conclusions for the issues that were the focus of the hearings: that that the financial crisis was caused by insufficient regulation—particularly a failure to "rein in excesses in the mortgage and financial markets"—weak risk management, unregulated over-the-counter derivatives, and excessive risk-taking.[1] It's not that many other causes were considered and dismissed; in many cases, they were not considered at all.

In January, I told vice chair Bill Thomas that I was thinking of resigning. It was clear to me that we were not going to be doing a thorough or objective investigation. Thomas promised changes, but none of any significance was ever made. The direction things were taking was also clear to others. The Commission's principal investigators protested the idea that the subjects of the public hearings were set in advance, before any investigation had been done. They were ignored. They drafted a memo to chairman Angelides and vice chair Thomas, explaining their position. I was told by one investigator that Thomas "begged" them not to send it, promising that things would change. They didn't send the memo, but nothing changed. Their view, and mine, was that the hearings should come out of the investigation—when things had been found that warranted a public hearing. Confirming the fear that the hearings were scheduled for publicity rather than substantive purposes, the first hearing was a fiasco. Without any preparation for this hearing, the Commission summoned the CEOs of four of the largest U.S. financial institutions, seemingly just so they could be photographed being sworn in. The *New York Times* and the *Wall Street Journal* were in rare agreement about this hearing, with the *Times* heading its editorial "The Show Must Not Go On." Eventually, one of the investigators, Martin Biegelman, resigned. He reportedly gave the chair and vice chair a memo describing the reasons for his resignation. This memorandum was not shared with the other commissioners and has never been made public.

The most disappointing fact about the Commission's management was its lack of objectivity. One particular example stands out. In March 2010, Edward Pinto, a resident fellow at the American Enterprise Institute (AEI) who had served as chief credit officer at Fannie Mae, provided to the Commission a 70-page, fully sourced memorandum on the number of subprime and other high risk mortgages in the financial system immediately before the financial crisis. In that memorandum, Pinto recorded that he had found over 25 million such mortgages (his later work showed that there were approximately 27 million).[2] Since there are about 55 million mortgages in the U.S., Pinto's research indicated that, as the financial crisis began, half of all U.S. mortgages were of inferior quality and liable to default when housing prices were no longer rising. In August, Pinto supplemented his initial research with a paper documenting the efforts of the Department of Housing and Urban Development (HUD), over two decades and through two Administrations, to increase home ownership by reducing mortgage underwriting standards.[3]

Pinto's work has been cited with approval by many scholars and experts in mortgage finance. His research raised important questions about the role of Government housing policy in fostering the growth of the subprime and other high risk mort-

[1] Commission Majority Report, pp. xviii–xxvi.

[2] Edward Pinto, "Triggers of the Financial Crisis" (Triggers memo). *http://www.aei.org/paper/100174.*

[3] Edward Pinto, "Government Housing Policies in the Lead-up to the Financial Crisis: A Forensic Study", *http//www.aei.org/docLib/Government-Housing-Policies-Financial-Crisis-Pinto-102110.pdf.*

gages that played such a key role in both the mortgage meltdown and the financial panic that followed. Any objective investigation of the causes of the financial crisis would have looked carefully at this research, exposed it to the members of the Commission, and taken Pinto's testimony in an open or closed hearing. But the Commission took none of these steps. Although Pinto met several times with the staff, his research was never made available to the other members of the FCIC, or even to the commissioners who were members of the subcommittee charged with considering the role of housing policy in the financial crisis. In early April, the Commission held 3 days of hearings on securitization, subprime mortgages, and the GSEs. There were numerous witnesses, but despite my requests Pinto was not among them. In the end, the Commission never seriously challenged Pinto's work or developed any data of its own on the number of subprime and Alt-A loans outstanding. Instead, it makes numerous statements about the housing market and the role of the GSEs that have no basis in fact. Some of these are discussed in later sections of this testimony.

There were many other more technical deficiencies. The Commission's report claimed that it interviewed hundreds of witnesses, and the majority's report is full of statements such as "Smith told the FCIC that . . . ." However, unless the meeting was public, the commissioners were not told that an interview would occur, did not know who was being interviewed, and of course did not have an opportunity to question the interviewees or understand the contexts in which the statements quoted in the report were made. Thus, the extensive use of interviews—instead of references to documents—raises a question whether there was bias in the witnesses chosen for interviews and the particular statements chosen for the report, and whether their statements were challenged in any way, with documentation or otherwise, during the interviews. A review of a sample of the transcripts and interview memoranda suggests that this did not happen. The Commission majority's report uses these unchallenged statements of fact and opinion by interviewees as substitutes for hard data, which is notably lacking in their report; opinions in general are not worth much as evidence, especially in hindsight and when given without opportunity for challenge. The Commission claims that it reviewed millions of pages of documents. It probably received millions of pages of documents, but whether they were actually reviewed is doubtful. Very little in the report quotes from documents the Commission received, rather than from people it interviewed.

The Commission's authorizing statute required that the Commission report on or before December 15, 2010. The original plan was for us to start seeing drafts of the report in April. We didn't get any drafts until November, when we started to receive drafts of chapters in no particular order. We were given an opportunity to submit written comments on these chapters, but never had an opportunity to go over the chapters as a group or to know whether our comments were accepted. We received a complete copy of the majority's report, for the first time, on December 15, the date on which the Commission's authorizing statute required that the report be completed. The draft was almost 900 double-spaced pages and was to be approved 8 days later, on December 23. Again, we never sat around a table and reviewed the final draft section by section. This is not the way to achieve a bipartisan report, or the full agreement of any group that takes the issues or its assignment seriously. But, somehow, the Commission majority managed to approve this report, although it seems to have been almost entirely the work of the chairman and the staff.

In summary, the overall direction of the Commission majority's report was determined before the Commission started its work. Throughout its 18-month life, the Commission focused only on issues that the chairman wanted to cover, was more interested in publicity than in a thorough investigation, and never paid serious attention to other views. It was not in any sense an objective or thorough study, did not produce any facts or data that could aid scholars in the future (although its disclosure of documents might assist scholarly research), and in my view was a waste of the taxpayers' money. Most important, considering the purpose of the Commission, was its failure to shed any light on the validity of the many theories that have been advanced to explain the financial crisis. Policy makers, scholars, and the American people deserved a reasoned analysis of these ideas. In the end, what they got was a just so story about the financial crisis, rather than a report on what caused the financial crisis.

I will now turn to the substantive reasons for my dissent. In my view, if we are to avoid another financial crisis in the future, it is necessary to understand the causes of the crisis that the Commission was impaneled to investigate. I decided to write a dissent when it became apparent to me that the Commission would not even attempt to meet this standard. In my view, there were two elements of the financial crisis that were truly unique—the size of the housing bubble that developed between 1997 and 2007 and the number of subprime and Alt-A mortgages that were present in the financial system when that bubble began to deflate. The Commission's management seemed determined to avoid any serious investigation of the underlying causes of either of these phenomena, and it seemed to me that a failure to consider their role in the financial crisis would give a distorted and biased picture to policy makers, scholars, and the American public.

What Caused the Financial Crisis?

George Santayana is often quoted for the aphorism that "Those who cannot remember the past are condemned to repeat it." This is not as easy as it sounds. There are always many factors that could have caused an historical event; the difficult task is to discern which, among a welter of possible causes, were the significant ones—the ones without which history would have been different. Using this standard, I believe that the *sine qua non* of the financial crisis was U.S. Government housing policy, which fostered the creation of 27 million subprime and other risky loans—half of all mortgages in the United States. These were ready to default in unprecedented numbers as soon as the massive 1997–2007 housing bubble began to deflate, and as I will show these defaults ultimately caused the weakness and failure among the world's largest financial institutions that we now recognize as the financial crisis.

With this background, I would like to outline for the Committee the logical process that I followed in coming to the conclusion that it was the U.S. Government's housing policies—and nothing else—that was the underlying cause of the 2008 financial crisis.

This position has been dismissed as simplistic. It is certainly true that many major events have multiple causes that are difficult to untangle. But some events can be traced back to a single cause, which—with sufficient attention—can be separated from surrounding events. A child playing with matches can burn down a house. The fact that the child was left alone in the house, that house did not have a security system that reported the fire, and that the fire department's truck broke down on the way to the fire are not other causes. If the child had not been playing with matches, the house wouldn't have burned down. In the same way, although there are many factors surrounding the financial crisis, I believe it is possible to show that if there had not been a housing bubble of unprecedented in size and duration, and if that bubble had not contained an unprecedented number of subprime and Alt-A mortgages, there might never have been a financial crisis.

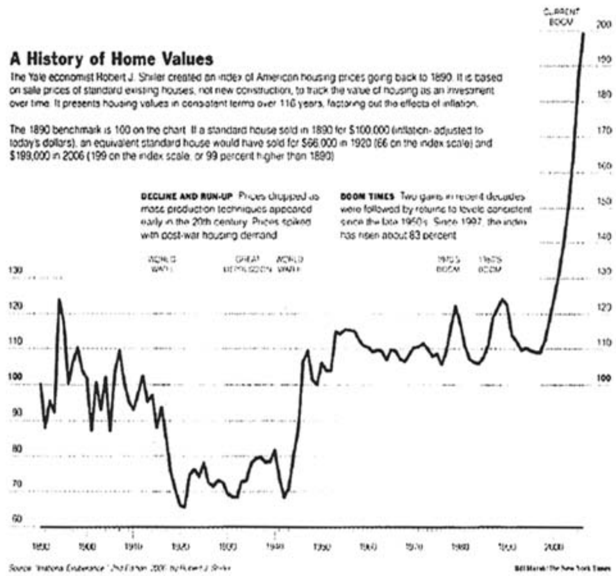
The Key Questions

The inquiry must begin with what everyone agrees was the trigger for the crisis—the so-called mortgage meltdown that occurred in 2007. That was the relatively sudden outbreak of delinquencies and defaults among mortgages, primarily in a few States—California, Arizona, Nevada, and Florida—but to a lesser degree everywhere in the country. No one disputes that the losses on these mortgages, the mortgage-backed securities (MBS) they supported, and the decline in housing values that resulted from the ensuing foreclosures were the precipitating cause of the crisis. These mortgage losses weakened, and caused a loss of market confidence in, Bear Stearns, Lehman, WaMu, and Wachovia. The Fed thought it had to rescue AIG because the firm had written credit default swaps on portfolios of private MBS backed by subprime mortgages.

Since we know that the triggering event for the financial crisis was the mortgage meltdown, it is necessary to draw the causal connections between this event and the Government's housing policies. These connections become clear when we ask three questions.

1. Why was an international financial crisis triggered by the collapse of a housing bubble in the U.S.? The U.S. has had housing bubbles in the past. Since the Second World War, there have been two—beginning in 1979 and 1989—but when these bubbles deflated they had triggered only local losses. Part of the answer is that the bubble that developed between 1997 and 2007 was far larger and of far longer duration than any previous housing bubble. Figure 1 is derived from Robert Shiller's calculation of real home prices since 1890 and shows the extraordinary size and duration of the 1997–2007 bubble in comparison to prior booms or bubbles.

Figure 1. The Great Bubble of 1997-2007.



2. Why was the deflation of the housing bubble in 2007 so destructive? The number of subprime and Alt-A loans in the 1997–2007 bubble was unprecedented. In prior housing bubbles, the number of low-quality nonprime loans never exceeded a few percent. As noted earlier, and as the Commission never acknowledged or disputed, by 2008, half all mortgages in the U.S.—27 million—were subprime or otherwise risky loans.

Table 1, below, shows that in early 2008 the credit risk of more than two-thirds of these low-quality loans—19.2 million mortgages—was held by various Government agencies or by firms the Government regulated or could otherwise influence. This makes clear that the Government's housing policies were directly responsible for creating the demand for these mortgages. The remaining number in Table 1, 7.8 million loans, were privately securitized by Wall Street firms and others. As I will show, the development of a market for securitized subprime loans was also attributable to the same Government housing policies.

When the bubble began to deflate, the overwhelming number of delinquencies and defaults among these low-quality loans drove down housing values, caused the collapse of the market for MBS, and weakened financial institutions in the U.S. and around the world.

Table 1

Entities Holding Credit Risk of Subprime and Other High-Risk Mortgages

Entity	No. of Subprime and Alt-A Loans	Unpaid Principal Amount
Fannie Mae and Freddie Mac	12 million	$1.8 trillion
FHA and other Federal	5 million	$0.6 trillion
CRA and HUD Programs	2.2 million	$0.3 trillion
Total Federal Government	**19.2 million**	**$2.7 trillion**
Other (including subprime and Alt-A Private MBS issued by Countrywide, Wall Street and others)	7.8 million	$1.9 trillion
Total	**27 million**	**$4.6 trillion**

3. Why were there so many weak and risky loans in this bubble? What had happened to mortgage underwriting standards in the preceding years that caused such a serious deterioration in mortgage quality? This is perhaps the most fundamental question, and it was completely ignored by the Commission majority's in its report. However, the answer lay in plain sight; beginning in 1992, U.S. housing policy sought to increase home ownership in the United States by reducing mortgage underwriting standards in order to make mortgage credit more readily available to low income borrowers.

Although there might be some question about whether this was actually Government policy, HUD made no effort to hide its purposes. In statements over several years, and through two Administrations, the department made clear its intent to reduce mortgage underwriting standards. Many of these statements are included in my dissent; three are set out below. The first was made in 2000 when HUD was increasing the affordable-housing goals for Fannie and Freddie. (The term, "more flexible mortgage underwriting," as used in this declaration, has always been code for avoiding traditional underwriting standards.)

> Lower-income and minority families have made major gains in access to the mortgage market in the 1990s. A variety of reasons have accounted for these gains, including improved housing affordability, enhanced enforcement of the Community Reinvestment Act, *more flexible mortgage underwriting,* and stepped-up enforcement of the Fair Housing Act. *But most industry observers believe that one factor behind these gains has been the improved performance of Fannie Mae and Freddie Mac under HUD's affordable lending goals. HUD's recent increases in the goals for 2001–03 will encourage the GSEs to further step up their support for affordable lending.* [4] [emphasis mine.]

Similarly, in 2004, when HUD was again increasing the affordable-housing goals for Fannie and Freddie, the department stated:

> Millions of Americans with less than perfect credit or *who cannot meet some of the tougher underwriting requirements of the prime market* for reasons

[4] U.S. Department of Housing and Urban Development, "HUD's Affordable Housing Goals for Fannie Mae and Freddie Mac", Issue Brief No. V (Washington, DC, January 2011), 5, *www.huduser.org/Publications/PDF/gse.pdf (accessed February 4, 2011).*

such as inadequate income documentation, limited down payment or cash reserves, or the desire to take more cash out in a refinancing than conventional loans allow, rely on subprime lenders for access to mortgage financing. *If the GSEs reach deeper into the subprime market,* more borrowers will benefit from the advantages that greater stability and standardization create.[5] [emphasis mine.]

Finally, the following statement appeared in a 2005 report commissioned by HUD:

More liberal mortgage financing has contributed to the increase in demand for housing. During the 1990s, lenders have been encouraged by HUD and banking regulators to increase lending to low-income and minority households. The Community Reinvestment Act (CRA), Home Mortgage Disclosure Act (HMDA), Government-sponsored enterprises (GSE) housing goals and fair lending laws have strongly encouraged mortgage brokers and lenders to market to low-income and minority borrowers. Sometimes these borrowers are higher risk, with blemished credit histories and high debt or simply little savings for a down payment. Lenders have responded with low down payment loan products and automated underwriting, which has allowed them to more carefully determine the risk of the loan.[6] [emphasis mine.]

These statements are strong evidence that the decline in mortgage underwriting standards between 1992 and 2007 did not just happen; nor was it the result of low interest rates, flows of funds from abroad, or any of the other events or conditions suggested by the Commission majority and the other dissenters. The process by which HUD gradually reduced underwriting standards is described fully in my dissent.

The Affordable Housing Goals and the Deterioration in Underwriting Standards

The turning point came in 1992, with the enactment by Congress of what were called "affordable housing goals" for Fannie Mae and Freddie Mac. As the Committee knows, Fannie and Freddie are Government-sponsored enterprises (GSEs) which were chartered by Congress more than 40 years ago to operate a secondary market in mortgages. Although they were shareholder-owned at all times relevant to this testimony, the Government placed them in a Government-controlled conservatorship in 2008 when they became insolvent. The original mission of Fannie and Freddie was to operate a secondary mortgage market by purchasing mortgages from originators, providing originating banks and others with the cash to make more mortgages.

As originally chartered by Congress, Fannie and Freddie were required to buy only mortgages that would be acceptable to institutional investors—in other words, prime mortgages. At the time they were chartered, a prime mortgage was a loan with a 10–20 percent down payment, made to a borrower with a good credit record who had sufficient income to meet his or her debt obligations after the loan was made. Fannie and Freddie operated under these standards until 1992.

The 1992 affordable housing goals required that at least 30 percent of all the mortgages that Fannie and Freddie bought in any year had to be loans made to borrowers who were at or below the median income in the places where they lived. These were considered low-to-moderate income (LMI) borrowers. Over succeeding years, the Department of Housing and Urban Development (HUD) increased this requirement—to 42 percent in 1996, 50 percent in 2000, and finally to 56 percent in 2008. Table 2, below, prepared by the Federal Housing Finance Agency, shows the gradually increasing affordable housing goals after 1992, and the success of Fannie and Freddie in meeting them.[7] The table also shows the subgoals. In the case of the Special Affordable goal, it is noteworthy that this goal—which required the GSEs to purchase loans to very low income borrowers (60 percent and 80 percent of area median income)—rose much faster than the general LMI goal.

When the goals reached 50 percent, simple arithmetic required Fannie and Freddie to acquire at least one goals-eligible loan for every prime loan that they acquired, and since not all subprime loans were goals-eligible Fannie and Freddie

[5] Final Rule, *http://fdsys.gpo.gov/fdsys/pkg/FR-2004-11-02/pdf/04-24101.pdf.*

[6] U.S. Department of Housing and Urban Development, Office of Policy Development and Resesarch, "Recent House Price Trends and Homeownership Affordability (Washington, DC, May 2005), 85, *www.huduser.org/Publications/pdf/RecentHousePrice.pdf* (accessed February 4, 2011).

[7] The table shows the years in which the requirements went into effect, rather than the year in which they were imposed. For example, the 50 percent affordable housing goal was imposed by HUD in October 2000 and went into effect in 2001.

were in effect required to buy many more subprime loans than prime loans to meet the goals. As a result of this process, by 2008, as shown in Table 1 above, Fannie and Freddie held the credit risk of 12 million subprime or otherwise risky loans.

Table 2

GSEs' Success in Meeting Affordable Housing Goals 1996-2008

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Low & Mod Housing Goals	**40%**	**42%**	**42%**	**42%**	**42%**	**50%**	**50%**	**50%**	**50%**	**52%**	**53%**	**55%**	**56%**
Fannie Actual	45%	45%	44%	46%	50%	51%	52%	52%	53%	55%	57%	56%	54%
Freddie Actual	41%	43%	43%	46%	50%	53%	50%	51%	52%	54%	56%	56%	51%
Special Affordable Goal	**12%**	**14%**	**14%**	**14%**	**14%**	**20%**	**20%**	**20%**	**20%**	**22%**	**23%**	**25%**	**27%**
Fannie Actual	15%	17%	15%	18%	19%	22%	21%	21%	24%	24%	28%	27%	26%
Freddie Actual	14%	15%	16%	18%	21%	23%	20%	21%	23%	26%	26%	26%	23%
Underserved Goal	**21%**	**24%**	**24%**	**24%**	**24%**	**31%**	**31%**	**31%**	**31%**	**37%**	**38%**	**38%**	**39%**
Fannie Actual	25%	29%	27%	27%	31%	33%	33%	32%	32%	41%	43%	43%	39%
Freddie Actual	28%	26%	26%	27%	29%	32%	31%	33%	34%	43%	44%	43%	38%

But this was not by any means the full extent of HUD's efforts. The agency apparently viewed Congress' enactment of the affordable housing goals as an expression of a congressional policy to reduce underwriting standards so that low income borrowers would have greater access to mortgage credit. As outlined fully in my dissent, by tightening the affordable housing goals, HUD put Fannie and Freddie into competition with FHA—which had an explicit mission to provide credit to low-income borrowers—and with subprime lenders, such as Countrywide, that had signed up for a HUD program called the Best Practices Initiative, in which adherents were expected to take affirmative steps to reduce underwriting standards.

Moreover, these organizations were joined by insured banks and S&Ls, which were required under the Community Reinvestment Act to make mortgage credit available to borrowers who are at or below 80 percent of the median income in the areas where they live.

It was this Government-induced competition that created substantial demand for subprime and Alt-A loans, which had previously been a niche market. By 2008, as noted in Table 1, 19.2 million out of the total of 27 million subprime and other weak loans in the U.S. financial system could be traced directly to U.S. Government housing policies.

Of course, it is possible to find borrowers who meet prime loan standards among LMI families, but it is far more difficult to do this than among middle income groups. Among the more obvious problems, LMI borrowers don't generally have substantial down payments, their FICO credit scores are often below average, and their debt to income ratios are often very high. When Fannie, Freddie, FHA, subprime lenders and insured banks and S&Ls are all competing to find loans to borrowers in the LMI category, they had to reduce their underwriting standards in order to find the mortgages they were required to make. So underwriting standards deteriorated as the affordable housing goals rose. For example, in 1990, only one in 200 mortgages involved a down payment of 3 percent or less; but by 2007 40 percent of all mortgages had a down payment of 3 percent or less.

These policies were successful in raising home ownership rates. These rates had fluctuated around 64 percent for 30 years, but between 1995 and 2004 they rose to 69 percent. These results were very pleasing to policy makers at the time. Only later, as the enormous number of delinquencies and defaults rolled in, did HUD begin to deny its role in the policies that caused the mortgage debacle, and along with others to point fingers at the GSEs and Wall Street.

The Private Securitization of Subprime Loans

What about the additional 7.8 million low-quality mortgages, shown in Table 1, that were securitized by Wall Street and others as private label securities (PLS) or private mortgage-backed securities (PMBS)? These were also subprime and Alt-A mortgages that were bought and held as investments by financial institutions around the world. Although they were less than one-third of the total number of subprime and other Alt-A loans outstanding, private MBS are the reason that banks and loan originators generally have been blamed for the financial crisis in the media, in most books about the financial crisis, and of course by the Government, which was seeking to avoid its own culpability.

How were these mortgages related to U.S. Government housing policy?

The securitization of subprime and other risky loans developed during the latter stages of the 1997–2007 housing bubble and was also a new phenomenon in the housing finance market. Indeed, it was a direct result of the extraordinary growth of the bubble itself. Most bubbles in the past had lasted 3 or 4 years. See Figure 1, above. This is because in that time delinquencies begin to appear and the inflow of the necessary speculative funds begins to dry up.

The bubble that deflated in 2007, however, had an unprecedentedly long 10 year life. This is because the money flowing into the bubble was not from private speculators looking for profit and alert to risk, but primarily from the Government pursuing a social policy by directing the investments of companies it regulated. The Government, unlike private speculators, was not concerned about risk, but only about increasing home ownership.

The mechanism here is important to understand: housing bubbles tend to suppress delinquencies and defaults. As housing prices rise, people who can't meet their obligations can sell the house for more than they paid, or can refinance, so defaults are lower than one might expect. By 2002, five years into the bubble that began in 1997, investors were noticing that subprime and other risky loans—which usually carried higher than normal interest rates because of their risk—were not showing a commensurate number of defaults. In other words, the data suggested that these mortgages and the private MBS they backed were offering unusually high risk-adjusted yields.

This stimulated the development of the private market in PLS, beginning in the early 2000s. The first year that this market was larger than $100 billion was 2002, when it reached $130 billion—about 4 percent of all mortgages made that year. For comparison, by 2002, Fannie and Freddie had already acquired almost $1.2 trillion in subprime and other risky loans, including $206 billion in 2002 alone. Thus, the 7.8 million subprime and other risky loans that were securitized by the private sector during the 2000s, and still outstanding in 2008, were an indirect result of U.S. Government housing policies, which had built an unprecedented bubble in the late 1990s. The bubble created the necessary conditions—a long run of subprime loans without the expected losses—for the growth of a huge securitization market in subprime and other risky loans in the mid-2000s. It remains to be discussed, then, how the buildup of subprime and Alt-A loans—now shown to be both the direct and indirect result of Government housing policies—caused the financial crisis.

Before leaving this subject, I'd like to deal with an issue that comes up again and again—whether Fannie and Freddie followed Wall Street into subprime lending or Wall Street followed Fannie and Freddie. From what I've just said it should be obvious that Fannie and Freddie led Wall Street.

Still, those who want to protect the Government won't give up. The FCIC, without any evidence at all, said in its report that Fannie and Freddie followed Wall Street into subprime loans for market share or for profit—that the affordable housing goals were not responsible. The Commission majority's report said: "[The GSEs'] relaxed their underwriting standards to purchase or guarantee riskier loans and related securities in order to meet stock market analysts' and investors' expectations for growth, to regain market share, and to ensure generous compensation for their executives and employees—justifying their activities on the broad and sustained public policy support for home ownership." [8]

I am no defender of the GSEs, but this is simply a fantasy. Here's a quote from Fannie's 2006 10-K:

[8] Commission majority report, p. xxvi.

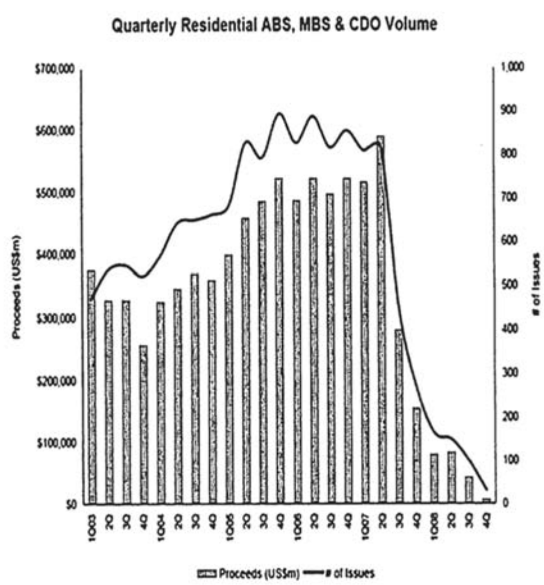
> [W]e have made, and continue to make, significant adjustments to our mortgage loan sourcing and purchase strategies in an effort to meet HUD's increased housing goals and new subgoals. These strategies include entering into some purchase and securitization transactions with lower expected economic returns than our typical transactions. *We have also relaxed some of our underwriting criteria to obtain goals-qualifying mortgage loans and increased our investments in higher-risk mortgage loan products that are more likely to serve the borrowers targeted by HUD's goals and subgoals, which could increase our credit losses.* [emphasis supplied.]

This language, which confirms that Fannie bought subprime and other risky loans to comply with the affordable housing goals, and not for market share or for profit, somehow never made it into the Commission's report.

Subprime and Other Risky Loans Cause the Financial Crisis

The private MBS market kept growing through 2005 and 2006, but completely collapsed in 2007, when the Government-created 10 year bubble finally topped out and began to deflate. Figure 2, below, shows the extraordinary decline in this market, beginning in 2007. Alarmed by the unexpected and unprecedented numbers of delinquencies and defaults, investors fled the multitrillion dollar market for mortgage-backed securities (MBS) and other asset-backed securities, dropping MBS values—and especially those MBS backed by subprime and other risky loans—to fractions of their former prices.

Figure 2



The collapse of the MBS market had an almost immediate and highly adverse effect on the apparent financial condition of major financial institutions in the U.S. and around the world. Under the accounting rules applicable to most financial institutions, securities must be valued on a mark-to-market basis unless they are being held to maturity. Without an existing liquid market, roughly $2 trillion in MBS simply could not be sold except at distress prices, and thus financial institutions were compelled to report significant capital writedowns as they marked substantial portions of their private MBS holdings to market.

In addition, the inability to sell private MBS at any but fire sale prices also had a major adverse effect on the liquidity positions of firms such as Bear Stearns and Lehman Brothers, which used AAA-rated MBS as a source of financing through repurchase agreements, or repose When AAA-rated MBS became unmarketable because of the collapse of the MBS market, these securities also became useless for liquidity purposes. Whether or not Bear and Lehman were actually insolvent, the market lost confidence in their ability to meet their obligations as they came due—

primarily because they did not have the liquidity resources that they had counted on to reassure counterparties.

The capital writedowns and liquidity effects of the collapse of the MBS market were a major contributor to the financial crisis. At the very least, they induced an investor anxiety about the solvency and stability of financial institutions that became an outright panic when Lehman filed for bankruptcy. Nevertheless, although the Commission reported that accounting losses seemed to exceed real losses, it never attempted to assess the effect of accounting requirements on the financial crisis—to determine, in other words, what the world would have looked like if mark-to-market accounting had not been required. This is another major lapse in the Commission's work, and leaves policy makers without a clear idea whether financial institutions should or should not be required in the future to mark their securities assets to market.

With half of all mortgages weak and low quality by late 2007, the financial crisis was a foregone conclusion. No financial system could withstand the huge losses that occurred when the delinquencies and defaults associated with 27 million subprime and other risky loans began to appear. Mark-to-market accounting then required financial institutions to write down the value of their assets—reducing their capital and liquidity positions and causing great investor and creditor unease. In this environment, the Government's rescue of Bear Stearns in March of 2008 temporarily calmed investor fears but created a significant moral hazard; investors and other market participants reasonably believed after the rescue of Bear that all large financial institutions would also be rescued if they encountered financial difficulties.

However, when Lehman Brothers—an investment bank even larger than Bear—was allowed to fail, market participants were shocked; suddenly, they were forced to consider the financial health of their counterparties, many of which appeared weakened by losses and the capital write downs required by mark-to-market accounting. This caused a halt to lending and a hoarding of cash—a virtually unprecedented period of market paralysis and panic that we know as the financial crisis of 2008.

In summary, then, this is the causal connection between the housing policies of the U.S. Government and the financial crisis:

- The Government's housing policies—by creating demand for subprime and Alt-A loans—fostered the growth of an unprecedented housing bubble and the creation of 19.2 million subprime and Alt-A loans.
- The size and duration of the bubble permitted the development of a securitization market in subprime and Alt-A loans, adding an additional 7.8 million weak and low-quality loans to the financial system.
- When the bubble deflated, these mortgages—then totaling almost half of all U.S. mortgages outstanding—defaulted in large numbers, causing losses (or anticipated losses) among private MBS and the collapse of the private MBS market.
- Without a market for private MBS, financial institutions were required by mark-to-market accounting to write down the value of their assets, making them appear weak and possibly insolvent.
- The absence of a market for private MBS also eliminated these securities as a source of liquidity for financial institutions, causing a loss of confidence among market participants in their ability to meet their cash obligations as they came due.
- The rescue of Bear Stearns, the first of the institutions to lose market confidence, temporarily calmed the investors and market participants, but when Lehman Brothers filed for bankruptcy a full-scale panic ensued in which market participants hoarded cash and refused to lend to one another. This is what we know as the financial crisis.

Conclusion

In brief, my dissent shows that the financial crisis was not caused by lack of regulation or by private sector greed but by misguided Government housing policy. The policy implication of this fact is that the Dodd-Frank Act—which has imposed tight and costly regulation on all aspects of the financial system—was not an appropriate response to the financial crisis. For this reason, Dodd-Frank should be repealed.

Those who want to protect the Government and the policies it followed will continue to assert that the failure to regulate the private sector caused the financial crisis. This was certainly the motive of the Commission majority in issuing its wholly deficient report. As my dissent suggest, however, they do not have the facts on their side.

JPMORGAN STUDY "EYE ON THE MARKET"

Eye on the Market | May 3rd, 2011 J.P.Morgan

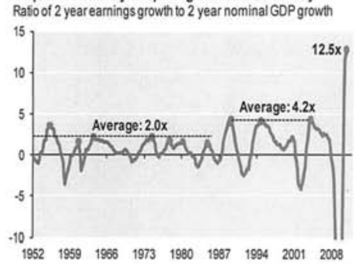
Retractions: US earnings growth, the Euro, and the primary catalyst for the US housing crisis

By May of each year, we get a sense for where we need to revise expectations. Several things panned out as we expected in January (stocks outperforming bonds; another good year for credit; an M&A rebound, benefiting certain hedge fund and mid cap equity strategies; Japan underperforming other regions; another leg to rising commodity prices; a rise in Asian currencies versus the dollar; and the resilience of municipal bond prices in the face of selling and notable skeptics [see EoTM Feb 14]). But this note is not about that, it's about expectations we need to revise. This week: a note on **Retractions of Prior Views**.

US large cap operating earnings growth in 2011 may exceed our 10% forecast

We showed the first chart below last week. It highlights how atypical this earnings cycle has been relative to weak nominal GDP growth. We had been forecasting 10% earnings growth for 2011, but now it looks like earnings growth will exceed these levels. To put this exercise in context, consider the second chart. After earnings collapse in a recession, they tend to rebound sharply, with earnings growth tailing off after a year or two. By the end of Q1, year-on-year earnings growth will have slowed to 15% from 90% in March 2010. Estimating earnings growth for all of 2011 is like projecting where a large boulder will stop rolling after having been released from the top of a hill. It now looks like it will roll a bit further than we thought.

US profits recovery outpacing economic recovery
Ratio of 2 year earnings growth to 2 year nominal GDP growth



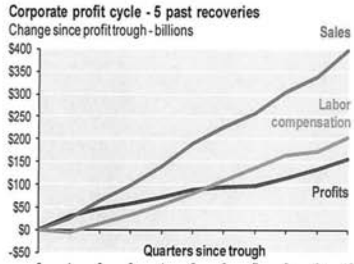
Source: Standard & Poor's, Bureau of Economic Analysis. J.P. Morgan PB.

Where will the earnings boulder stop rolling?
S&P 500 quarterly operating earnings per share, % change - YoY

Source: Standard & Poor's.

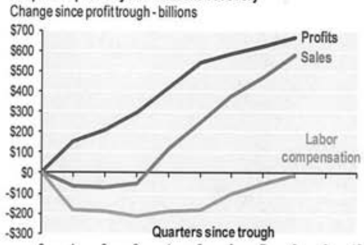
Before we discuss the implications of rising earnings projections, let's look one more time at the drivers of corporate profits during this recovery. In the 5 prior earnings recoveries, sales rose, labor compensation rose as well (though not as fast as sales), resulting in rising profits (see first chart). In the *current* cycle, labor compensation is unchanged after two years given the abysmal condition of the job markets (second chart). As a result, almost the entire increase in sales flows through to bottom-line profits. This is what is referred to as "*high incremental margins*", a topic we wrote about in April of 2010.

Corporate profit cycle - 5 past recoveries
Change since profit trough - billions



Source: Bureau of Economic Analysis, J.P. Morgan PB.

Corporate profit cycle - current recovery
Change since profit trough - billions



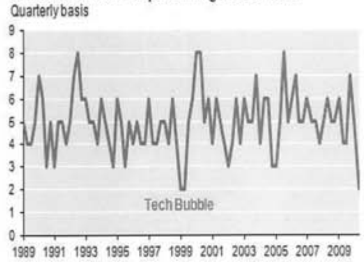
Source: Bureau of Economic Analysis, J.P. Morgan PB.

The profits recovery is not *entirely* a story of lower labor costs. As shown above, sales are rising. But the labor compensation picture, in our view, throws some cold water on the valuation implications of corporate profits right now. The reason: **weak labor compensation has resulted in outsized government transfers to households and businesses, and the largest fiscal deficits in decades.**

Retractions: US earnings growth, the Euro, and the primary catalyst for the US housing crisis

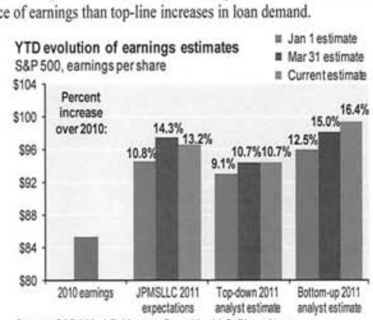
In terms of breadth, the profits recovery is spread across sectors. So far in Q1 2011, with 2/3 of companies reporting, 78% are outperforming estimates, with earnings beating estimates by around 5%. The outperformance is spread across all sectors, with the best performance (vs expectations) from Technology, Healthcare, Industrials, Materials and Consumer Discretionary. **Three cautionary notes, however**. First, rising energy earnings (up ~40% in Q1) may eventually have negative feedback loops for other sectors. Second, energy and industrials were the only sectors to outperform the S&P 500 on a price basis in Q1, resulting in the narrowest market leadership since 1999 (see chart below). And third, financial sector profits benefitted from the reduction in loan loss provisions, which is a lower-quality source of earnings than top-line increases in loan demand.

Number of sectors outperforming the S&P 500
Quarterly basis



Source: Bloomberg.

YTD evolution of earnings estimates
S&P 500, earnings per share



Source: S&P 500, J.P. Morgan Securities LLC, Bloomberg.

How much earnings growth should we expect in 2011? The second chart shows the evolution of earnings forecasts this year from company analysts, market strategists, and J.P. Morgan Securities. Even without factoring in any multiple expansion, earnings growth of 13% to 15%, times a forward P/E multiple of 14x-15x, yields an S&P 500 valuation range of 1,350 to 1,470. The higher end of earnings growth and P/E multiple ranges would result in 17% returns this year. While the 16% bottoms-up estimate looks high to us, 2011 earnings growth is likely to exceed the 10% expectations we had in January. M&A trends and stock buybacks are helping as well; global M&A volumes are up 18% from 2010, and announced stock buybacks are on pace to double. **There are still uncertainties related to energy prices, China slowing and tightening across the developing world, the collapsing dollar and the debt ceiling (now pushed to August due to better than expected Treasury tax receipts).** As a result, we are not making major changes to overall equity and hedge fund allocations from levels shown on April 18[1].

The Euro continues to rally, reflecting widening Fed and ECB policy differences we did not expect

We did not have a strong view on the US$/Euro exchange rate heading into 2011, but perhaps we should have. As shown, the Euro has been moving lock step with interest rate differentials between the two regions. Since January, these rate differentials widened again, and the Euro rallied from $1.30 to $1.48. Why are policy rate expectations for 2012 so much higher in Europe than in the US? Tight German labor markets[2], and a focus on rising energy prices and headline inflation by the ECB, mostly. On the other hand, the Fed appears content to sit tight and let Bernanke's "Portfolio Rebalancing Channel" (e.g., rising stock prices) run a bit more, since the Fed's reading of US *core* inflation is benign, and believes that rising energy prices are "transitory". When considered in local currency terms, European equities trail the US and Asia ex-Japan this year (as they did in 2010). But after factoring in the higher Euro, European equities generated the highest returns by region in 2011. Our view is that the ECB will not tighten as much as the markets expect (6 times by June 2012), which should slow the Euro's appreciation vs. the dollar.

Exchange rate has moved with interest rate expectations
USD/EUR, 5-day moving average

Source: Bloomberg, J.P. Morgan PB.

[1] For example, in Balanced portfolios allocate 32%-35% to public equities, 25% to hedge funds and 5% to private equity.

[2] Tight labor markets in Germany (a record number of job vacancies in April) and Spanish unemployment rising to 21.3%? With strong growth and an aging population, Germany needs around 400,000 immigrants per year to maintain labor productivity. For historical reasons, job-seekers are more likely to come from Poland than from Spain, highlighting structural tensions in the European Monetary Union.

Retractions: US earnings growth, the Euro, and the primary catalyst for the US housing crisis

US Agencies played a larger role in the housing crisis than we first reported

In January 2009, I wrote that the housing crisis was mostly a consequence of the private sector. Why? US Agencies appeared to be responsible for only 20% of all subprime, Alt A and other mortgage exotica[3]. However, over the last 2 years, analysts have dissected the housing crisis in greater detail. What emerges from new research is something quite different: government agencies now look to have guaranteed, originated or underwritten 60% of all "non-traditional" mortgages, which totaled $4.6 trillion in June 2008. What's more, this research asserts that housing policies instituted in the early 1990s were explicitly designed to require US Agencies to make much riskier loans, with the ultimate goal of pushing private sector banks to adopt the same standards. To be sure, private sector banks and investors are responsible for taking the bait, and made terrible mistakes. Overall, what emerges is an object lesson in well-meaning public policy gone spectacularly wrong.

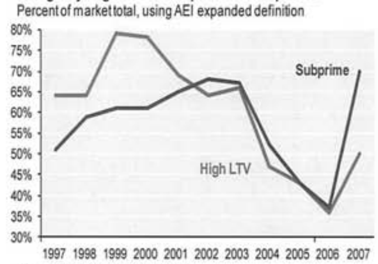
Exposure to Subprime and Alt-A loans using AEI expanded definition, Percent of total as of June 30, 2008

Source: American Enterprise Institute.

Sources

- Edward Pinto, "*Government Housing Policies in the Lead-up to the Financial Crisis: A Forensic Study*", November 2010. During the 1980's, Mr. Pinto was Fannie Mae's SVP for Marketing and Product Management, and subsequently its Executive Vice President and Chief Credit Officer.
- Peter Wallison, "*Dissent from the Majority Report of the Financial Crisis Inquiry Commission*", published January 2011. Mr. Wallison, a member of the Financial Reform Task Force and Financial Crisis Inquiry Commission, worked in the US Treasury Department under President Reagan.

US Agency High LTV & Subprime loan exposure
Percent of market total, using AEI expanded definition



Source: American Enterprise Institute.

For Pinto and Wallison, this quote from the Department of Housing and Urban Development in 2000 is a **smoking gun of sorts, and lays out a blueprint for the housing crisis**:

"Because the GSEs have a funding advantage over other market participants, they have the ability to under price their competitors and increase their market share. This advantage, as has been the case in the prime market, could allow the GSEs to eventually play a **significant role in the subprime market.** As the GSEs become more comfortable with subprime lending, **the line between what today is considered a subprime loan versus a prime loan will likely deteriorate, making expansion by the GSEs look more like an increase in the prime market**. Since, as explained earlier in this chapter, one could define a prime loan as one that the GSEs will purchase, the **difference between the prime and subprime markets will become less clear. This melding of markets could occur even if many of the underlying characteristics of subprime borrowers and the market's (i.e., non-GSE participants) evaluation of the risks posed by these borrowers remain unchanged.**" (HUD Affordable Lending goals for Freddie Mac/Fannie Mae, Oct 2000)

The strategy worked, as shown in the chart: the Agencies took the lead in the 1990s and early 2000's in both subprime and high LTV (>=95%) loans, acquiring over $700 billion in non-traditional mortgages **before** private markets had even reached $100 billion. Then in 2002-2003, private sector banks took the bait and jumped in with both feet. According to Wallison, the distortion of the housing bubble from 1997 onward obscured what would otherwise have been rising delinquencies and losses. As a result, when investors, banks and rating agencies finally got involved in a substantial way, they ended up looking at under-stated default statistics on subprime, Alt A and high LTV borrowers.

[3] Why was it hard to figure this out in the immediate aftermath of the housing collapse? ***Creative Reporting.*** According to Pinto, Fannie Mae classified a loan as subprime only if the loan was originated by a lender specializing in subprime, or by subprime divisions of large lenders. They did not use FICO scores to report all subprime exposure, despite their use to define subprime as far back as 1995 in Freddie Mac's industry letters, and guidelines issued by Federal regulators in 2001. As Pinto notes, this had the effect of reducing its reported subprime loan count.

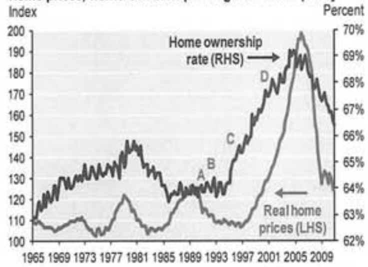
Retractions: US earnings growth, the Euro, and the primary catalyst for the US housing crisis

The Wallison/Pinto timeline of events looks something like this, and is best viewed when superimposed on home ownership rates and home prices (see first chart below), which had been stable for the prior 3 decades:

A: **Senate hearings in 1991** start the ball rolling with commentary from community groups that banks need to be pushed to loosen lending standards, and that Agencies must take the lead: "*Lenders will respond to the most conservative standards unless [Fannie Mae and Freddie Mac] are aggressive and convincing in their efforts to expand historically narrow underwriting.*"

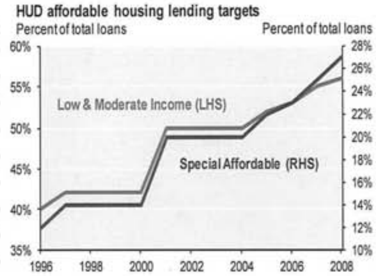
B: In 1992, **Congress imposes affordable housing goals on Fannie and Freddie** through the "Federal Housing Enterprises Financial Safety and Soundness Act of 1992", and become competitors with FHA. To meet these goals, the Agencies relaxed down payment requirements. By 2007, they guaranteed an estimated $140 billion of loans with down payments <=3% (after having done none at <5% as of 1991). Half of these high LTV loans required no down payments at all. This was the driver behind a larger trend: by 2007, required down payments of <=3% were 40% of all home purchase loans.

Home prices, home ownership and government policy



Source: "Irrational Exuberance," Robert Shiller, 2005, U.S. Census Bureau.

HUD affordable housing lending targets



Source: American Enterprise Institute.

C: In its 1995 National Homeownership Strategy publication, HUD announces that while low down payment mortgages were already 29% of the market by August 1994, **they wanted more**: "*Lending institutions, secondary market investors, mortgage insurers, and other members of the partnership should work collaboratively to reduce homebuyer down payment requirements*".

D: **In 2000, HUD raises affordable lending targets again**. The chart above shows the escalation of lending targets for low and moderate income borrowers, and "Special Affordable"[4] borrowers. The problem for Agencies: the only way to meet these targets was to relax down payment requirements even more, and income verification/loan to value standards as well. When announcing even higher affordable housing targets in 2004, HUD made it clear that their purpose was to get private sector banks to follow suit: "*These new goals will push the GSEs to genuinely lead the market*". (HUD Press Release, Nov. 2004). Bad news: they did.

The rest, as they say, is history. Wallison and Pinto make a variety of assumptions in several hundred pages of research, some of which has unsurprisingly resulted in conservative and liberal policy groups disagreeing with each other. One point is not in dispute: dollar for dollar, **private sector banks and brokers made much worse loans than the Agencies**, when considering delinquency rates and losses per dollar of loan principal.

But Wallison and Pinto are not trying to find out who made the worst loans. They're trying to figure out why underwriting standards collapsed across the board; how policy objectives were designed to have private sector banks follow the Agencies off the cliff; and why Agency losses to taxpayers are estimated to be so large ($250-$350 billion). It's a hollow victory for Agency supporters to claim that their version of Alt A and Subprime was not as bad as private sector ones: the Agencies had almost no capital to absorb losses in the first place, given what their mandate was. According to the Financial Crisis Inquiry Commission, "**by the end of 2007, Fannie Mae and Freddie Mac combined leverage ratios, including loans they owned and guaranteed, stood at 75 to 1.**" After factoring out tax-loss carry-forwards, Agency capital ratios were probably below 1% on over $5 trillion of aggressively underwritten exposure.

US Agency Equity Capital Ratios December 2007

[4] "Special Affordable" goal: the percent of dwelling units financed by GSE's mortgage purchases targeted for very low-income families, defined as those families with incomes no greater than 60-80 percent of median incomes *measured in those jurisdictions*.

Retractions: US earnings growth, the Euro, and the primary catalyst for the US housing crisis

The Wallison/Pinto research appears to be a well-reasoned addition to the body of work dissecting the worst housing crisis in the post-war era. It is convincing enough to retract what we wrote in 2009. As regulators and politicians consider actions designed to stabilize the financial system and the housing/mortgage markets, reflection on the role that policy played in the collapse would seem like a critical part of the process.

Michael Cembalest
Chief Investment Officer

<u>Acronyms</u>

HUD	Department of Housing and Urban Development
FHLB	Federal Home Loan Banks
VA	Veterans Administration
CRA	Community Reinvestment Act
FHA	Federal Housing Authority
GSE	Government Sponsored Enterprises (Freddie Mac, Fannie Mae)
ECB	European Central Bank
FCIC	Financial Crisis Inquiry Commission
LTV	Loan to Value

FINANCIAL CRISIS INQUIRY COMMISSION ARCHIVED WEB SITE LIST

The Financial Crisis Inquiry Commission

Final Report

January 27, 2011

The Financial Crisis Inquiry Commission (FCIC) created a website dedicated to reporting on matters related to its mission and purpose, but by federal mandate, the operations of the FCIC ceased to exist on February 13, 2011. The official archival FCIC website will be maintained by the "CyberCemetery", a joint venture of the U.S. Government Printing Office and the University of North Texas Libraries. The CyberCemetery is an archive of government websites that have ceased operation. As of May 18, 2011, this FCIC archived website may be found at: http://www.cybercemetery.unt.edu/archive/fcic/20110310172443/http://fcic.gov/.

The FCIC also reached an agreement with the Rock Center for Corporate Governance at Stanford University and the Robert Crown Law Library at Stanford Law School (SLS) to host a website with FCIC's report and data, which is accessible as of May 18, 2011, at: http://fcic.law.stanford.edu/

Link to the FCIC Majority's Conclusions:

- http://cybercemetery.unt.edu/archive/fcic/20110310173539/http://c0182732.cdn1.cloudfiles.rackspacecloud.com/fcic_final_report_conclusions.pdf

Link to Dissent Joined by Keith Hennessey, Douglas Holtz-Eakin, and Bill Thomas:

- http://cybercemetery.unt.edu/archive/fcic/20110310173542/http://c0182732.cdn1.cloudfiles.rackspacecloud.com/fcic_final_report_hennessey_holtz-eakin_thomas_dissent.pdf

Link to Dissent by Peter Wallison:

- http://cybercemetery.unt.edu/archive/fcic/20110310173535/http://c0182732.cdn1.cloudfiles.rackspacecloud.com/fcic_final_report_wallison_dissent.pdf

Links to Final Report, including dissents, of the FCIC:

- http://cybercemetery.unt.edu/archive/fcic/20110310173545/http://c0182732.cdn1.cloudfiles.rackspacecloud.com/fcic_final_report_full.pdf
- http://www.gpo.gov/fdsys/pkg/GPO-FCIC/pdf/GPO-FCIC.pdf

FINANCIAL CRISIS INQUIRY COMMISSION PRELIMINARY STAFF REPORT

"THE MORTGAGE CRISIS"

DRAFT: COMMENTS INVITED

Financial Crisis Inquiry Commission

Preliminary Staff Report

THE MORTGAGE CRISIS

APRIL 7, 2010

This preliminary staff report is submitted to the Financial Crisis Inquiry Commission (FCIC) and the public for information, review, and comment. Comments can be submitted through the FCIC's website, www.fcic.gov.

This document has not been approved by the Commission.

The report provides background factual information to the Commission on subject matters that are the focus of the FCIC's public hearings on April 7, 8, and 9, 2010. In particular, this report provides information on the mortgage market. Staff will provide investigative findings as well as additional information on these subject matters to the Commission over the course of the FCIC's tenure.

Deadline for Comment: May 15, 2010

CONTENTS

The Mortgage Crisis

The purpose of this preliminary staff report is to describe the recent mortgage crisis, which entailed a dramatic drop in home prices beginning in 2006 and a sharp rise in mortgage defaults beginning in 2007. Section I describes the origination of mortgages over the two decades leading up to the crisis. Section II documents some evidence on the expansion in subprime and alt-A lending in the 2000s. Section III describes the increase in home ownership over this period. Section IV describes the unprecedented run-up in home prices from 1998 to 2006 and their subsequent steep decline. Section V describes the increase in mortgage defaults from 2007 to 2009. Section VI briefly discusses evidence on the reasons for this increase in mortgage defaults.

I. MORTGAGE ORIGINATIONS

Figure 1

Source: Home Mortgage Disclosure Act (HMDA)

Figure 1 depicts the number and dollar amount of residential mortgage originations---the lending of money secured by homes---in the US from 1990 to 2008 according to data from HMDA. During the 1990s, mortgage origination grew moderately. Over that period, there was an average of 7.6 million annual loan originations with average annual dollar value of roughly $736 billion. From 2000 to the peak of originations in 2003, mortgage activity increased rapidly, and it continued at an elevated pace through 2006 and into 2007. By 2008, originations had fallen back to historical levels.

Figure 2

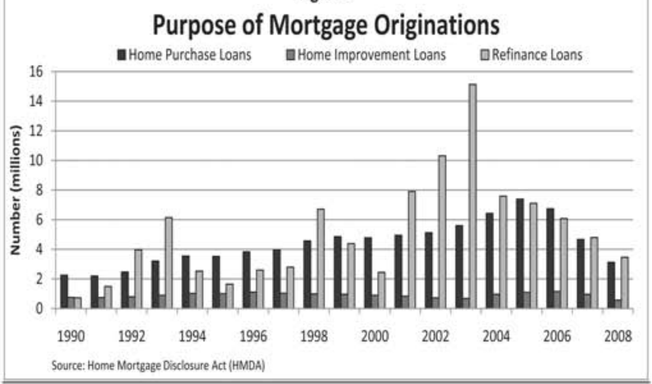


Figure 2 breaks down this activity into three categories of loans: home purchase loans, refinance loans, and home improvement loans. Home purchase activity rose steadily at a compounded annual growth rate of nearly 8 percent from 1995 until it peaked in 2005.

In response to low interest rates and house price appreciation, refinance activity peaked first in 1993, then again in 1998, and dramatically in 2003[1]. In 2003, over 15 million refinance loans were originated; compared to an estimated 50 to 55 million outstanding mortgages, that corresponds to nearly one in three US homes being refinanced in that year alone.[2]

II. THE EXPANSION OF SUBPRIME AND ALT-A MORTGAGE-BACKED SECURITIES

The period leading up to the mortgage crisis saw a large increase in originations of *subprime* and *alt-A* mortgage-backed securities (defined below), which have higher default risk than mortgages labeled prime.

A. DEFINITION OF SUBPRIME AND ALT-A MORTGAGES

In general, the term *subprime* refers to mortgage loans made to borrowers with relatively poor credit histories. These loans are therefore riskier than *prime* loans, which are made to borrowers with stronger credit. As a result, the marketing, underwriting, and servicing of

[1] The 30-year mortgage rate hit near-term lows of 6.83 percent in October 1993, 6.71 percent in October 1998 and 5.23 percent in June 2003. Mortgage rates were generally higher than their June 2003 level until government policies to push down mortgage rates were instituted in late 2008 (Federal Reserve Board H.15 Series).

[2] Mortgages may have been refinanced more than once in that year.

subprime loans is different than that of prime loans. However, the mortgage industry lacks a consistent definition of the subprime mortgage market. Subprime loans are typically identified in one of three ways: 1) as loans with interest rates above a given threshold; 2) as loans from lenders that have been classified as specializing in subprime loans; or 3) as mortgages that back mortgage-backed securities (MBS)---discussed below---that are marketed as subprime.[3]

The term alt-A refers to loans generally made to borrowers with strong credit scores but which have other characteristics that make the loans riskier than prime loans. For example, the loan may have no or limited documentation of the borrower's income, a high loan-to-value ratio (LTV), or may be for an investor-owned property. Typically, loans are identified as being alt-A by virtue of being in an MBS that is marketed as alt-A.

Since subprime and alt-A loans are often labeled as such based upon their associated MBS, we provide here a brief overview of the MBS market. MBS are securities that give the holders the right to receive the principal and interest payments from borrowers on a particular pool of mortgage loans. The market for MBS was pioneered by Fannie Mae and Freddie Mac, the government-sponsored enterprises (GSEs), which were created by the federal government to develop this secondary mortgage market. The GSEs purchase mortgages to hold in portfolio and to securitize into MBS that they guarantee against default.

Ginnie Mae plays a similar role in the secondary market for mortgages insured by the Federal Housing Administration (FHA) and the Department of Veterans Affairs (VA). FHA loans are made by private lenders and insured by the FHA. They are usually made to low- and moderate-income borrowers, often with weaker credit histories, and have smaller downpayments. Historically, the size limits on these loans were low. VA loans are offered to military personnel and are guaranteed by the Department of Veteran Affairs. These too require little or no downpayment.

MBS issued by the GSEs or Ginnie Mae are referred to as *agency MBS*. Other financial institutions also create MBS, referred to as *non-agency MBS*, which have a structure similar to agency MBS but typically have no guarantee against default risk. Much more detail on the securitization process is given in the Preliminary Staff Report titled "Securitization and the Mortgage Crisis," released on April 8, 2010.

When financial institutions sell MBS to investors, the MBS is given a label, such as prime, subprime, or alt-A, that represents characteristics of the underlying borrowers and mortgage loans that determine how risky the mortgage loans are.

An alternative to these definitions of subprime and alt-A loans is to use a definition that identifies loans with higher default risk based strictly on the characteristics of the borrower

[3] Mayer and Pence (2008) offer a more detailed discussion of the advantages and disadvantages of these different approaches.

and the loan. For example, loans could be categorized as "high risk" or "subprime/alt-A" based on borrowers' credit scores and loans' LTV ratios. A comparison of these approaches is presented later in this report.

B. THE CHANGING MORTGAGE MARKET

Figure 3 shows mortgage originations by dollar volume for three groups of loans from 1990 through 2008 based on data from Inside Mortgage Finance (IMF).[4] The first category, *IMF:Alt-A/subprime/FHA,* includes loans labeled alt-A or subprime by the lenders in the IMF survey and loans that are insured by the FHA or VA. We refer to all other loans with loan amounts at or below the GSEs' conforming size limit as *GSE/other* loans.[5] While some of these loans are held in banks' portfolios, the great majority of them are purchased by the GSEs.[6] The remaining loans with amounts above the GSEs' conforming size limit are referred to as *jumbo* loans.

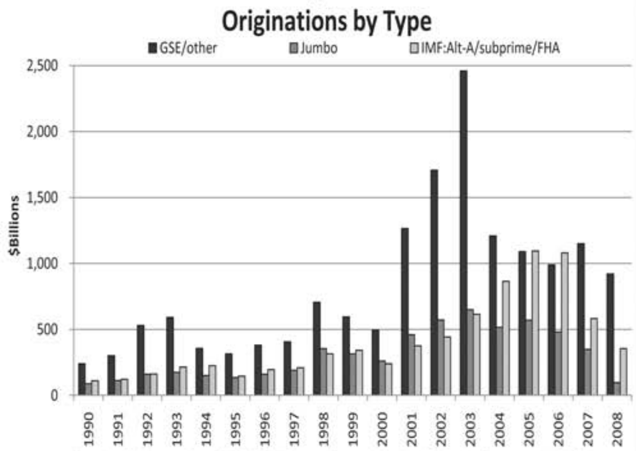
Beginning in 2003, the amount of GSE/other originations dropped sharply from nearly $2.5 trillion (over 60 percent of all originations) to roughly $1.2 trillion (35 percent of originations) in 2006. In that period, loans in the IMF:Alt-A/subprime/FHA category gained substantial market share.

[4]The figures from IMF are based upon classification of the loans by reporting lenders or by the MBS in which the loan resides. HELOC loans from IMF are omitted. There is high correlation between the aggregate figures reported in HMDA and those reported in IMF. In general, institutions are required to file under HMDA if they have a presence in a Metropolitan Statistical area (MSA) and have made at least one home purchase or refinance loan in the given year. Data in HMDA is estimated to cover 80-85% of the US mortgage market in any given year.

[5] IMF refers to these loans as Conventional/Conforming.

[6] For example, according to the IMF data, in 2003, 62% of originations were GSE/other. Data from the Federal Housing Finance Authority, the GSEs' regulator, shows that in 2003, 57% of originations were GSE mortgages, suggesting that in 2003 GSE mortgages were the great majority of GSE/other. A similar relationship exists in other years. The IMF data is used here, instead of the Federal Housing Finance Agency data, because the IMF data also report on non-GSE mortgages.

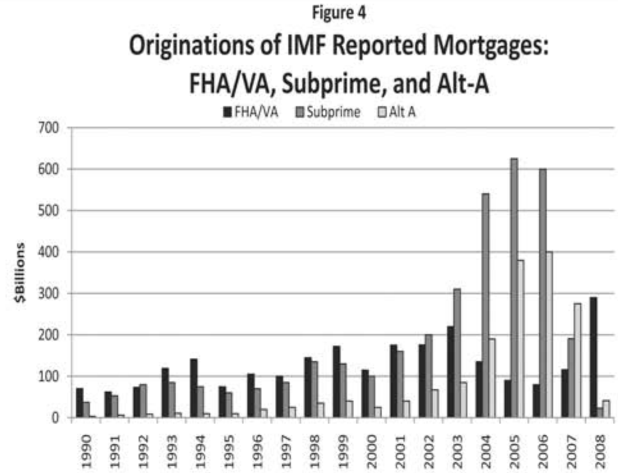
Figure 3



Source: Inside Mortgage Finance (IMF 2009). IMF reports data on originations in following the categories: FHA/VA, Conv/Conf, Jumbo, Subprime, Alt-A, HEL, ARM and Refi.

Figure 4 breaks down the IMF:Alt-A/subprime/FHA category into the subprime, alt-A and FHA/VA components as reported by IMF. In 1990, subprime loans as reported by IMF totaled $37 billion or 9 percent of originations. At the peak in 2005, these loans totaled $625 billion, or roughly 25 percent of total mortgage originations in that year (total originations is shown in Figure 3). Alt-A loans as reported by IMF were most prevalent between 2004 and 2007; in fact, the IMF alt-A volume doubled between 2003 and 2004 and again between 2004 and 2005. In 2006, volumes totaled nearly $400 billion and comprised over 15 percent of all originations; alt-A and subprime originations reported by IMF together comprised nearly 40 percent of all origination activity.

Figure 4



Source: Inside Mortgage Finance (IMF 2009). IMF reports data on originations in following the categories: FHA/VA, Conv/Conf, Jumbo, Subprime, Alt-A, HEL, ARM and Refi.

Comparing these values to the earlier chart suggests that much of the refinance boom in 2002 and 2003 was due to borrowers not in the IMF:Alt-A/subprime/FHA category. A much greater proportion of the purchase and refinance activity from 2004 through 2007 involved loans labeled subprime and alt-A by IMF.

C. FHA AND VA MORTGAGES

As a share of total mortgage originations, FHA and VA loans peaked in 1994 at $141 billion, nearly 20 percent of all originations. From then to 2006, the market share for these loans slowly eroded, hitting its bottom at just around 3 percent. As the subprime market grew, offering higher LTV loans, the FHA alternatives became less attractive.[7] Indeed, as shown in Figure 4, the level of FHA and VA loans showed outright declines from 2003 to 2006. After the collapse of the mortgage market, FHA became a major source of support for the housing. The level of FHA and VA loans rose dramatically in 2007 and 2008. In 2008, over 20 percent of mortgage originations were guaranteed by the FHA or VA.

[7] See Jaffee and Quigley (2008) for a thorough discussion of the history of FHA and VA mortgages.

D. NON-TRADITIONAL MORTGAGE PRODUCTS

The 2000s also saw a shift in the contractual form of mortgage loans originated. One common type of mortgage is a 30-year *fixed rate mortgage* (FRM), in which the interest rate is fixed for the entire term of the loan and the borrower is required to make a series of equal monthly payments until the loan is paid off. The fixed payment amount that results in the loan being fully paid off at the end of the term is called the *fully amortizing* payment amount. In contrast, an *adjustable rate mortgage* (ARM) has an interest rate that is specified in terms of a margin above some interest rate index. For example, "Prime + 3%" means that the borrower is charged interest based on an interest rate equal to the prime rate plus 3 percentage points. The interest rate on an ARM adjusts at regular intervals. Other mortgages are *hybrids* of FRMs and ARMs in which the interest rate is fixed for some introductory period and then adjusts at regular periods according to some interest rate index. Both 2/28 and 3/27 ARMs, 30-year loans with a fixed rate for two or three years, respectively, were common forms of hybrid loans before the crisis.

Other types of mortgages entail the borrower paying less than the fully amortizing amount each month. For example, a *balloon mortgage* is one in which the borrower pays less than the fully amortizing payment amount and must then pay some relatively large fixed sum at the end of the term---called a balloon payment---to pay off the mortgage. *Interest-only mortgages* allow the borrower to pay only the interest accrued each month and make no payments toward principal for some period. *Option ARMs*, also called *negative amortization ARMs*, allow the borrower to pay *less* than the interest charged for some period so that the balance on the loan grows over time before the required payment amount resets to the fully amortizing rate.

Table 1 shows the fraction of mortgages originated that were interest-only mortgages, option ARMs, balloon mortgages, or "traditional" mortgages (defined as all other types of mortgages) from 2004 to 2008. Interest-only mortgages grew from only 2 percent in 2004 to 20 percent by 2007. Option ARMs and balloon mortgages also grew in this period.

Table 1: Market share of non-traditional mortgage products by year

	Interest Only	Option ARM	Balloon	Traditional
2004	2%	5%	0%	93%
2005	15%	8%	0%	77%
2006	18%	9%	3%	71%
2007	20%	5%	2%	74%
2008	6%	1%	0%	93%

Source: Inside Mortgage Finance (IMF 2009)

E. MORTGAGE ORIGINATION

Mortgages are originated by a variety of financial institutions. *Depository institutions*, which accept deposits from the public and lend that money to households and businesses, are one type of originator. Depository institutions include commercial banks as well as credit unions, savings and loan associations, and mutual savings banks. Depository institutions are regulated by a set of federal and/or state agencies charged with ensuring the safety and soundness of these institutions.

Non-depository institutions, called *mortgage companies* or *mortgage banks,* also originate mortgages. Mortgage companies borrow money from banks (or by issuing bonds) and lend that money to consumers in the form of mortgage loans. They typically then sell those loans to other financial institutions and use that money to originate additional mortgages.

Mortgage lenders are sometimes owned by holding companies or other financial institutions. Some mortgage companies are owned by depository institutions, and are therefore *subsidiaries* of a depository. Others are owned by holding companies that also own a depository institution and are therefore an *affiliate* of a depository. Mortgage companies that are not a subsidiary or affiliate of a depository institution are called *independent mortgage companies.*

Table 2 shows the percentage of mortgages originated by independent mortgage companies and by depositories or their subsidiaries or affiliates from 2004 to 2007. Panel A provides this breakdown for all residential mortgages and shows that depository institutions and their subsidiaries accounted for about 60 percent of all mortgage originations from 2004 to 2006, with affiliates of depositories accounting for 10 percent and independent mortgage companies accounting for about 30 percent. In 2007, the market share of depositories grew to 73 percent, while the market share of independent mortgage companies dropped to 19 percent.

Panel B shows that independent mortgage companies play a greater role in the market for *higher-priced* mortgages, which are disproportionately subprime mortgages,[8] accounting for about half of such mortgages from 2004 to 2006, before their market share dropped to 21 percent in 2007.

[8] Higher-priced mortgages are mortgages with annual percentage rate (APR) spreads above the reporting threshold. The APR spread is the difference between the APR on the loan and the yield on a comparable-maturity Treasury security. The reporting threshold for first-lien loans is a spread of 3 percentage points; for junior-lien loans, it is a spread of 5 percentage points. Higher-priced loans are generally made to subprime or Alt-A borrowers, since these borrowers pose greater risk of default and risk of prepaying loans early (prepayment risk). See Avery, et al (forthcoming) for more detail.

Table 2: Percentage of Mortgage Originations by Year of Origination and Originator Type

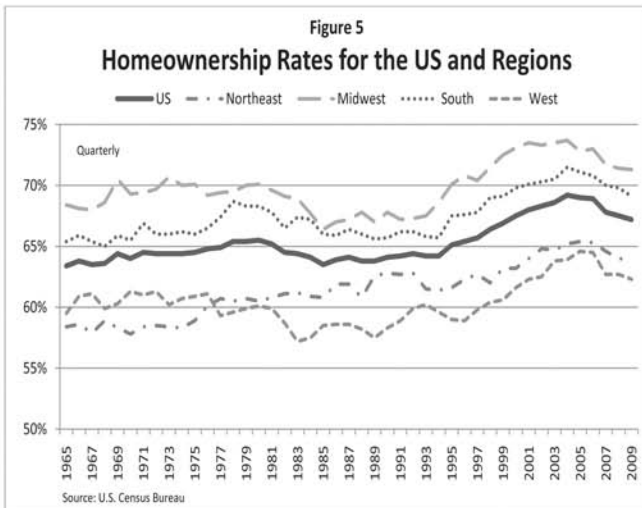
	Independent mortgage company	Depository or subsidiary	Affiliate of depository
Panel A: All mortgages			
2004	28	63	9
2005	31	60	10
2006	31	60	10
2007	19	73	8
Panel B: Higher-priced mortgages			
2004	51	37	12
2005	52	36	12
2006	46	41	13
2007	21	62	18

Source: Home Mortgage Disclosure Act data (HMDA)
Notes: Higher-priced mortgages are mortgages with APR spreads above the reporting thresholds defined by HMDA. See footnote 7 for more detail.

III. HOME OWNERSHIP

Figure 5 shows the home ownership rate for the US and for four regions in the US from 1965 to 2009. Between 1965 and 1995, home ownership rates varied between about 63 and 65 percent. From the mid-1990s through 2004, the rate of home ownership in the United States rose steadily peaking at 69 percent in late 2004. It then declined to 67 percent in 2009, still somewhat above its historical levels.

While there are substantial differences in the level of home ownership in the various regions of the country, the increase during this period occurred across the country. The Midwest peaked a bit earlier than the national average and the West a bit later.



IV. HOME PRICES

An important feature of the mortgage crisis was a dramatic increase in home prices followed by a national decline in home prices beginning in 2006.

A. NATIONAL HOME PRICE INDEXES

Figure 6 shows the inflation-adjusted home price series, developed by Robert Shiller, from 1920 to the present.[9] There are several noteworthy features of these data. First, before World War II home prices were relatively steady, but just after the war home prices rose to a new, fairly steady level. Second, at both the end of the 1970s and at the end of the 1980s, housing prices rose modestly before declining again.

Finally, and most importantly, the dramatic increase in real housing prices beginning in the late 1990s and subsequent fall from 2006 is striking and unprecedented. The size of the increase from 1998 to the peak in 2006 is substantially greater than any previous increase.

[9] Shiller(2006). Data from http://www.econ.yale.edu/~shiller/data

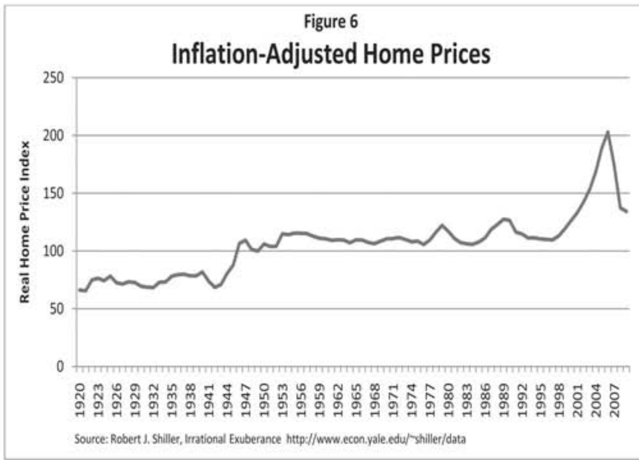


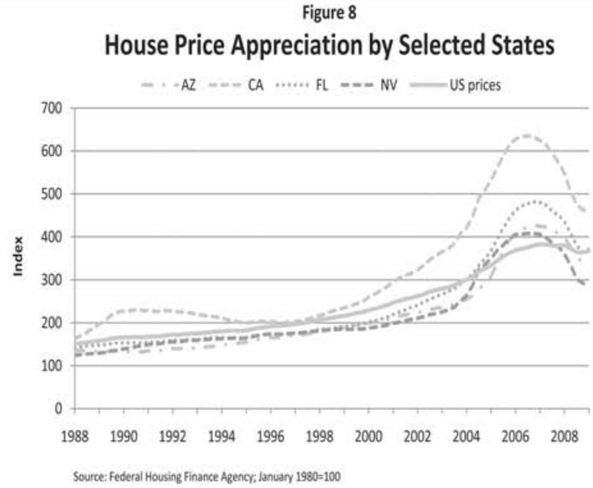
Figure 7 shows *nominal* home prices (i.e., not adjusted for inflation) from 1976 to 2009 using three national indexes. [10] After a long period of steady and moderate increases, home price growth began to accelerate in the late 1990s. All of the series peak during 2006 and then show a marked decline.

[10] A thorough comparison of the Case Shiller and FHFA series can be found in Leventis (2008).

B. REGIONAL VARIATION IN HOME PRICES

These national indexes mask substantial variation in home price patterns across the country. Figure 8 shows the FHFA house price indexes for the "sand states" (namely California, Arizona, Nevada and Florida) and for the US as a whole. The sand states, and especially California, had dramatically larger spikes and subsequent declines in housing prices than did the US as a whole. Looking at a finer level of detail, such as the MSA or county, would show even greater variation in the pattern of house prices over this period.

Figure 8

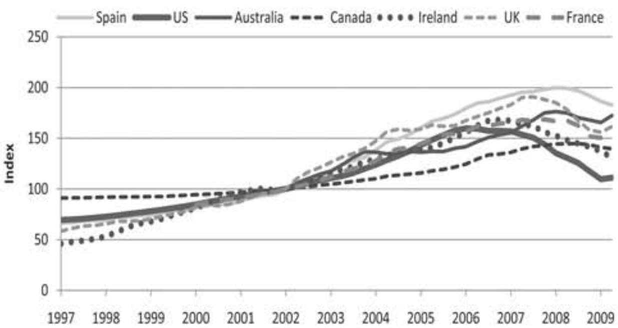


C. INTERNATIONAL HOME PRICES

Figure 9 shows that the housing bubble was not limited to the United States. The UK and Ireland, in particular, experienced a dramatic increase in home prices from 1997 to 2007, followed by large declines. Some other countries, however, did not experience a bubble. Canada, for example, experienced steady but moderate increases over the period with housing prices flattening and then only slightly declining in 2009. The fact that other countries experienced a housing bubble suggests that the US housing bubble cannot be explained exclusively by idiosyncratic features of the US housing market but rather was in part due to broader trends and practices.

Figure 9

International Home Prices



Source: Statistics Canada, ESRI, Banco de Espana, Nationwide, Standard & Poor's, FNAIM, AusStats

D. THE EMERGENCE OF THE BUBBLE

During the run-up in housing prices from 1998 to 2006, there was considerable debate about whether this increase in home prices was based on fundamental economic changes---for example, a change in income and demographics---or whether the increase in house prices represented an asset bubble. An *asset bubble* exists "if the reason that the price is high today is only because investors believe that the selling price is high tomorrow---when 'fundamental' factors do not seem to justify such a price."[11] In housing, a bubble might exist when homebuyers are willing to pay inflated prices for houses today because they expect housing prices to appreciate in the future.[12] Such asset bubbles are unsustainable---if expectations about the future change, then housing prices can decline rapidly.[13]

Economists writing in 2005 in the *Journal of Economic Perspectives* concluded that "[a]s of the end of 2004, our analysis reveals little evidence of a housing bubble."[14] In contrast, other analysts such as Shiller and Paul Krugman argued that the increase in housing prices did represent a housing bubble.[15]

---

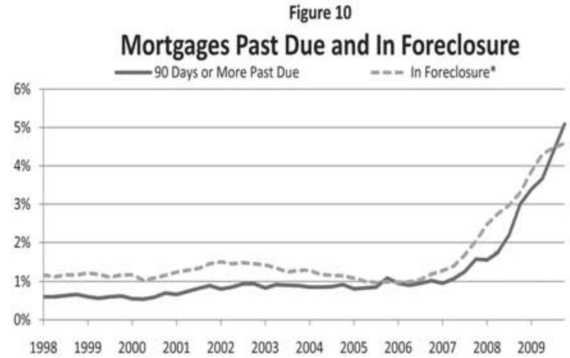
[11] Stiglitz (1990).
[12] Himmelberg, Mayer, and Sinai (2005).
[13] Shiller (2006, 2009)
[14] Himmelberg, Mayer, and Sinai (2005, p. 68).
[15] See, e.g., Robert Shiller, "The Bubble's New Home," Barron's, June 20, 2005 and Paul R. Krugman, "That Hissing Sound," The New York Times, August 8, 2005.

V. DELINQUENCY AND DEFAULT

A. SERIOUS DELINQUENCY IN THE UNITED STATES

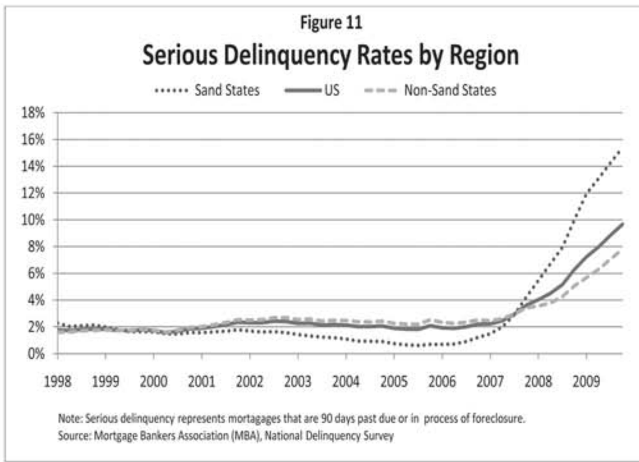
Soon after the peak of house prices in early 2006, delinquencies and foreclosures began to rise. As shown in Figure 10, both the percentage of loans 90 or more days delinquent and the percentage of loans in the foreclosure process hovered around 1 percent up until 2006. Late in that year and early in 2007, early payment defaults from mortgages originated in 2006 began to appear. After that point, both indicators show a sharp increase as the default and foreclosure crisis emerged.

Figure 10



*End of Period
Source: Mortgage Bankers Association (MBA), National Delinquency Survey
Note: Values are not seasonally-adjusted

As with house prices, the rate of serious delinquency, which includes loans 90 or more days past due and those in the foreclosure process, also varies widely across the country. Figure 11, based on analysis by the Mortgage Bankers Association, shows the rate of serious delinquency for the "sand states" (California, Arizona, Nevada and Florida), for the remaining states, and for the entire nation. In the sand states, serious delinquency is nearly 16 percent, double the rate in other areas of the country. For the years immediately preceding the crisis, these states had lower rates of delinquency, likely due to the fact that house price appreciation enabled borrowers to sell their homes rather than default on their mortgages.



B. SERIOUS DELINQUENCY BY PRODUCT AND CHARACTERISTICS

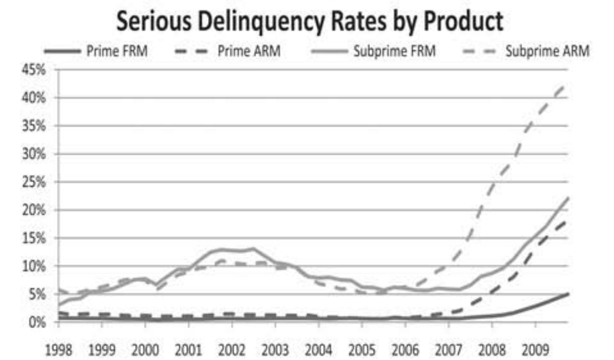
Figure 12 shows the percentage of loans seriously delinquent for four product categories as reported by the Mortgage Bankers' Association: prime fixed rate mortgages (FRMs), prime adjustable rate mortgages (ARMs), subprime FRMs, and subprime ARMs. In this dataset, subprime loans are identified as such by the loan servicers.

First, note that in the last recession, in 2001, subprime loans performed poorly but prime loans were largely unaffected by the downturn. Serious delinquency on both subprime ARMs and FRMs rose above 10 percent from 2001 to 2003.[16]

Second, delinquency rates during the recent mortgage crisis are much higher than those during the 2001 recession, with even prime loans' delinquency rates increasing substantially. Subprime loans performed much worse than prime loans, and for both categories, ARMs performed worse than FRMs. Subprime ARMs were the worst performing category, with serious delinquency rates over 40 percent by the third quarter of 2009. They are followed by subprime FRMs at over 20 percent delinquent, prime ARMs at 18 percent delinquent, and prime FRMs at about 5 percent delinquent, all as of the third quarter of 2009.

[16] It is important to note that the data regarding subprime mortgage performance before 2003 is sparser, and of somewhat lesser quality, than in later years.

Figure 12



Note: Serious delinquency represents mortagages that are 90 days past due or in process of foreclosure.
Source: Mortgage Bankers Association (MBA), National Delinquency Survey

Deterioration in these categories of loans started at different times. Subprime ARMs began to show increases in serious delinquency in early 2006 just as house prices were peaking. In contrast, prime ARMs begin to show weakness more than a year later, at about the same time as subprime FRMs. Prime FRMs (again, as reported by the Mortgage Bankers' Association) show a slow and steady increase in serious delinquency that coincides with the increasing severity of the recession and the increase in unemployment in 2008.

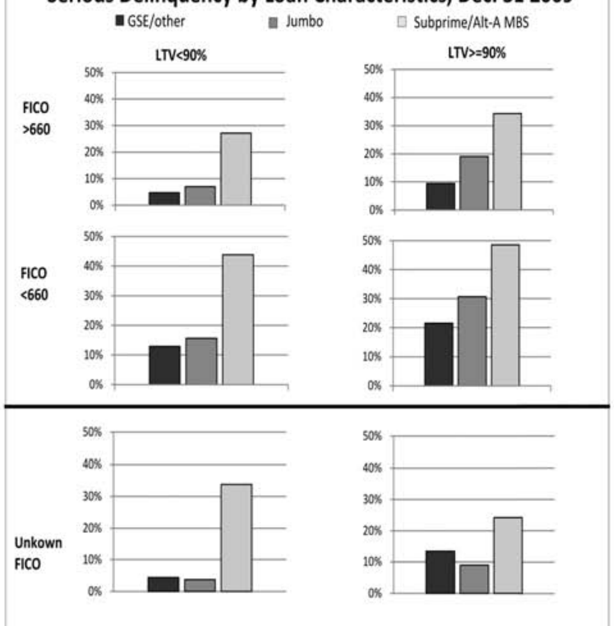
As discussed above, the definition of a subprime loan, or an alt-A loan, is not very precise. Some have suggested that a more definitive, and arguably objective, measure based on the characteristics of the loan be used to identify high risk mortgage loans.[17] For example, loans could be categorized as "high risk" or "subprime/alt-A" based on borrowers' FICO credit scores and the loans' LTV ratios.[18]

[17] See e.g. the recent work by Ed Pinto (http://www.aei.org/docLib/Pinto-Sizing-Total-Exposure.pdf). In his analysis, all loans with a FICO score below 660 are described as subprime by characteristic and of the remaining loans, those with LTV above 90%, or with certain features such as negative amortization or IO provisions, are described as Alt-A by characteristic.

[18] Credit scores are numerical values meant to represent the credit risk posed by a prospective or current borrower. FICO credit scores are based upon the proprietary formulas developed and used by Fair Isaac Corporation.

Figure 13

Serious Delinquency by Loan Characteristics, Dec. 31 2009



Source: Amherst Securities, LoanPerformance

The chart above shows risk characteristics for three categories of mortgages: GSE/other and jumbo and loans in subprime and alt-A MBS.[19] Alt-A/subprime MBS are loans that are held in MBS that were labeled alt-A or subprime MBS. All other loans are classified as GSE/other if they were for amounts below the GSEs' conforming loan limits, and jumbo if not. The great majority of loans in the GSE/other category are held by the GSEs or in GSE MBS.

The chart shows the percentage of various loan-risk groups based on FICO and LTV that were seriously delinquent as of year-end 2009. With two thresholds, there are naturally

[19] For this graph, FHA and VA loans are omitted from the Alt-A/subprime MBS category since the data were not available when this report was produced. Revised versions of this preliminary staff report submitted to the Commission will reflect analysis using a more comprehensive and detailed dataset on the mortgage market.

four risk groupings, displayed in the top four panels. The least risky group, those with low LTV and high FICO scores is displayed in the upper left panel. The lower right panel displays the information for the riskiest group, those with high LTV and low FICO scores. The other two panels in this group of four have low FICO and low LTV in one panel (in the bottom left) and high FICO and high LTV in the other panel (upper right).

There are two other groups containing loans where the FICO score is unavailable, displayed at the bottom of the figure. For each risk group, the colored bars represent the rates of serious delinquencies for the three categories: GSE/other, jumbo and alt-A/subprime MBS.[20]

Table 3: Percentage of Portfolios

		LTV<90%	LTV>=90%
FICO >660	*GSE/other*	66.1%	7.5%
	Jumbo	86.2	3.2
	Alt-A/subprime MBS	46.3	6.8
FICO <660	*GSE/other*	11.8	3.7
	Jumbo	6.2	0.6
	Alt-A/subprime MBS	35.6	10.6
Unknown FICO	*GSE/other*	9.2	1.6
	Jumbo	3.6	0.2
	Alt-A/subprime MBS	0.1	0.5

As shown in Table 3 above, most GSE/other loans and jumbo loans are in the greater than 660 FICO and below 90 percent LTV group (the upper left group of Figure 13 and in the table). Nonetheless, roughly 25% of GSE/other loans in this dataset have a FICO below 660 or an LTV greater than or equal to 90 percent. Similarly, while most of the alt-A/subprime MBS loans have one of these two loans characteristics (FICO below 660 or an LTV greater than or equal to 90 percent), 46 percent of these loans are in the group with FICO above 660 and LTV at or below 90 percent.

For each of the four risk groups, the delinquency rate is substantially less for loans in the GSE/other group compared to the alt-A/subprime MBS group. In both the low FICO-low LTV group and the high FICO-high LTV group, the rate of serious delinquency for the GSE/other loans (13 percent and 9 percent, respectively), is less than one-third the rate for alt-A/subprime MBS loans with the same characteristics (43 percent and 34 percent,

[20] The GSE/other portfolio is very similar in composition to the yearend 2009 portfolio in the Fannie Mae single family guarantee book as described in the Fannie Mae Credit Supplement. Using a slightly different tabulation (breakpoint at FICO=620) that better aligns with information provided in that report shows that the distribution of loans in the four buckets is very similar for these two portfolios. Serious delinquency at Fannie Mae, on average, was 5.4 percent compared to 6.1 percent in this portfolio.

respectively). In both of these groupings, the rate of serious delinquency for GSE/other loans is near the national average of roughly 10 percent.

For the riskiest group, those loans with high LTVs made to borrowers with low FICO scores, the rate of serious delinquency is just over 20 percent for the GSE/other loans, compared to nearly 50 percent for the loans in alt-A/subprime MBS. For the least risky loans, the difference is most pronounced; serious delinquency is roughly 5 percent for the GSE/other loans compared to nearly 30 percent for the alt-A/subprime MBS. Overall, the roughly 20 percent rate of serious delinquency within the worst performing group of GSE/other loans is still less than then roughly 28 percent rate of serious delinquency in the best performing group of loans in alt-A/subprime MBS.

Loan characteristics such as LTV and borrower characteristics such as FICO are clearly related to performance. As discussed below, evidence suggests that the increased number of loans with high LTVs was one of the reasons for the high default rates. The market's classification of the loans is also important: loans in subprime and alt-A MBS performed much worse than those the market labeled prime, even when they were in the same grouping of FICO and LTV.

C. DELINQUENCY OF FHA AND VA MORTGAGES

Figure 14 shows the progression of serious delinquency rates in loans guaranteed by the Federal Housing Administration (FHA) and the Department of Veterans Affairs (VA). A mortgage is considered to be in serious delinquency when payments are 90 or more days past due. From the second quarter of 2008 to the fourth quarter of 2009, FHA-backed mortgages in serious delinquency rose from 5.4 percent to 9.4 percent.

Figure 14

D. DELINQUENCY BY VINTAGE

Mortgages originated during various years have performed differently during the crisis. Analysis by Yuliya Demyanyk and Otto Van Hemert (2009) shows that subprime mortgages originated in later years have higher rates of serious delinquency than those originated earlier. This pattern may be driven by several factors, including:

- First, the characteristics of the mortgages originated in each year could be changing so that, for example, the distribution of FICO scores and LTV ratios for the loans originated in 2006 was substantially different than for loans originated in earlier years.

- Second, even with the same observable characteristics, mortgages written in the later years could be somehow "riskier" in ways that are not readily apparent.

- Third, the differences in default may be driven by the fact that the different vintages of loans experienced different house price appreciation. The value of the homes secured by loans originated in 2001 experienced large increases in their value over the first 60 months after the loans were originated. In contrast, the homes securing loans originated in 2006 lost value quickly. Because falling home prices result in increases in mortgage defaults, these two vintages can be expected to have very different default rates over any given period since origination.

Either of the first two factors could be described as a "decrease in underwriting standards" and are often cited as explanations for the foreclosure crisis. In contrast, the third explanation relies on home price declines as a major factor. The next section describes some of the research done to date that attempts to measure these effects.

VI. LITERATURE ON HIGH DEFAULT RATES DURING THE MORTGAGE CRISIS

As described above, mortgage delinquencies and foreclosures rose dramatically beginning in 2006. This section discusses some of the current research that examines the reasons for these increases.

A. DOUBLE-TRIGGER MODEL OF MORTGAGE DEFAULT

A standard model of mortgage default is known as the *double-trigger* model: borrowers typically default on a mortgage only if they have both *negative equity*---i.e., they owe more on the house than it is worth---and they experience some sort of *income shock*, such as job loss, that makes it difficult to continue making payments on the mortgage.[21]

The reason negative equity is thought to be a necessary condition for mortgage default is that, if a borrower has positive equity he can sell the house and pay off the loan, keeping any equity left after selling costs. This is better for the borrower than simply walking away from the house and defaulting because the borrower's credit score is preserved and he gets his equity back (minus selling costs).

Some sort of income shock is also thought to be an important contributing factor for most defaults for several reasons. First, borrowers have economic incentives to continue paying even if their house is "underwater," (i.e., they have negative equity) because defaulting on a mortgage can have a negative impact on their credit score. Moreover, borrowers may hope that housing prices will rise, resulting in their equity turning positive. Finally, some borrowers may feel a moral obligation to continue paying on their mortgage debt so long as they are able.

B. EVIDENCE ON THE REASONS FOR THE INCREASE IN MORTGAGE DEFAULTS

Mayer, Pence, and Sherlund (2009) examine the reasons for the increase in mortgage defaults in 2007 and conclude that "[s]lackened underwriting standards ... combined with stagnant to falling house prices in many parts of the country appear to be the most immediate contributors to the rise in mortgage defaults."[22] This conclusion is consistent with the double-trigger model discussed above. The sharp drop in housing prices beginning in 2006 left many borrowers with negative equity. Furthermore, borrowers with high initial LTV ratios, which became more prevalent as underwriting standards

[21]FN: Vandell (1995) and Foote, et al (2008) discuss the double-trigger theory.
[22] Mayer, Pence, and Sherlund (2009, p. 47-48).

slackened, are more sensitive to housing price declines because they have a smaller equity buffer before their mortgage is underwater. Moreover, borrowers with low FICO scores may be more at risk of income shocks due to job loss and other reductions in earnings. As a result, these borrowers are more likely to experience income shocks at the same time that they are underwater – thus experiencing the "double- trigger" that leads to default.

1. *Underwriting standards.*

Table 4 shows some of the attributes of the mortgages underlying subprime and alt-A MBS issued from 2003 to 2007. There are two important trends. First, from 2003 to 2006, median combined LTV, which is the ratio of total debt outstanding on the house and the value of the home (times 100), rose from 90 to 100 for subprime mortgages and from 90 to 95 for alt-A mortgages. A borrower with combined LTV of 100 has no equity in his house.

Second, from 2003 to 2006 the percentage of borrowers who offered the originator low or no documentation of their income and assets rose from 32 to 38 percent for subprime mortgages and from 63 to 80 percent for alt-A mortgages. Generally, when borrowers apply for a mortgage, they must provide the lender documentation of their income and assets, for example by providing income tax statements and bank statements. For these low and no documentation loans the borrower provided less than the standard set of documents, and such loans have higher default risk than full documentation loans. Finally, note that median FICO scores, which measure how strong the borrower's credit history is, show little change over the period.

Table 4: Characteristics of Home Purchase Mortgage Loans in Subprime and Alt-A MBS

	Mortgage type	*2003*	*2004*	2005	2006	2007 (Jan-June)
Median Combined LTV	Subprime MBS	90	95	100	100	100
	Alt-A MBS	90	90	90	95	95
Median FICO score	Subprime MBS	615	615	618	616	613
	Alt-A MBS	710	706	708	701	707
% with low or no documentation	Subprime MBS	32	34	36	38	34
	Alt-A MBS	63	62	69	80	81

Source: Mayer, Pence and Sherlund (2009) analysis of First American LoanPerformance data.

Mayer, Pence, and Sherlund (2009) conclude that the increase in combined LTV and in low or no documentation loans were substantial contributors to the poor performance of loans during the mortgage crisis.

2. *Housing prices*

Mayer, Pence, and Sherlund (2009) cite housing prices as a second major contributor to the increase in defaults during the mortgage crisis. As documented above, housing prices experienced a dramatic run-up from 1998 to 2006, but then fell at an average annual rate of 10 percent from mid-2006 to mid-2008.[23] Mayer, Pence, and Sherlund (2009) observe that states with particularly large rises and falls in house prices---namely, California, Florida, Arizona, and Nevada---experienced default rates of roughly twice the national average.

3. *Income shocks and unemployment*

Another contributor to the increase in mortgage defaults was a rise in unemployment. Even in normal times, households may face unexpected reductions in income, perhaps from job loss, or an unexpected increase in expenses, such as medical bills. When housing prices go down, some of those who lose their job will be underwater on their mortgage and consequently at high risk of default. As the unemployment rates goes up, the frequency with which this occurs will naturally increase. As Mayer, Pence, and Sherlund (2009) note, some of the earliest defaults were in the industrial Midwest, where difficult economic conditions had led to increased unemployment for several years. This spread to other parts of the country as the financial crisis and ensuing recession took hold.

VII. REFERENCES

Avery, Robert B., Neil Bhutta, Kenneth P. Brevoort, Glenn B. Canner, and Christa N. Gibbs, Forthcoming, "The 2008 HMDA Data: The Mortgage Market during a Turbulent Year," *Federal Reserve Bulletin*, available at http://www.federalreserve.gov/pubs/bulletin/2009/pdf/hmda08draft.pdf

Barth, James, 2009, *The Rise and Fall of the US Mortgage and Credit Markets*, John Wiley and Sons: Hoboken, NJ.

Demyanyk, Yuliya and Otto Van Hemert, 2009, "Understanding the Subprime Mortgage Crisis," *The Review of Financial Studies*, May 2009.

Foote, Christopher L., Kristopher Gerardi, and Paul S. Willen, "Negative Equity and Foreclosure: Theory and Evidence," *Journal of Urban Economics* 64: pp. 234-245.

Himmelberg, Charles, Christopher Mayer, and Todd Sinai, (2005), "Assessing High House Prices: Bubbles, Fundamentals and Misperceptions," *Journal of Economic Perspectives*, 19(4).

[23] Mayer, Pence, and Sherlund (2009, p. 45).

Jaffee, Dwight M. and John M. Quigley, 2008, "Mortgage Guarantee Programs and the Subprime Crisis," *California Management Review*, 51(1).

Leventis, Andrew (2008), "Revisiting the Differences between the OFHEO and S&P/Case-Shiller House Price Indexes: New Explanations," available at http://www.fhfa.gov/webfiles/1163/OFHEOSPCS12008.pdf

Mayer, Christopher and Karen Pence, 2008, "Subprime Mortgages: What, Where, and to Whom?" FEDS Working Paper Series 2008-29, available at http://www.federalreserve.gov/PUBS/FEDS/2008/200829/200829pap.pdf

Shiller, Robert J., (2008), *The Subprime Solution: How Today's Global Financial Crisis Happened, and What to Do about It*, Princeton University Press.

Shiller, Robert J., (2006), *Irrational Exuberance*, Currency/Double-day.

Stiglitz, Joseph E., 1990. "Symposium on Bubbles," *Journal of Economic Perspectives*, 4(2).

Vandell, Kerry D., 1995, "How Ruthless is Mortgage Default? A Review and Synthesis of the Evidence," *Journal of Housing Research* 6: pp. 245 -264.

FINANCIAL CRISIS INQUIRY COMMISSION MEMORANDUM

"ANALYSIS OF HOUSING DATA"

MEMORANDUM
Financial Crisis Inquiry Commission

To: Commissioners

From: Ron Borzekowski
Wendy Edelberg

Date: July 7, 2010

Re: Analysis of housing data

As is well known, the rate of serious delinquency in the mortgage market increased substantially from 2006 to 2009. The preliminary analysis discussed in this memo shows that the worst performing mortgages were concentrated in certain segments of the mortgage market, namely in securitization pools labeled Alt-A and subprime. To the extent that the worse performance of these loans reflects greater risk at the time of origination, the evidence suggests that the mortgage risk was predominantly located in these segments.

Data

According to data from the Mortgage Bankers Association, roughly 55 million first-lien mortgage loans were outstanding in the US in the years surrounding the crisis. Of this universe, the Federal Reserve has loan-level data for roughly 34-35 million loans per year, or about 60 percent. FCIC staff is in the process of getting similar and likely more comprehensive data of this sort from other data sources. In the meantime, researchers at the Fed provided to the FCIC *tabulations* of their loan-level data that detail the number of loans and the average performance of loans with various characteristics. The measure of performance is the rate of serious delinquency defined as loans 90 or more days past due or in the foreclosure process.

The tabulations include loans in various segments of the mortgage markets (the actual tabulations are discussed later); loans securitized or held by the GSEs (GSE), loans in Alt-A securitizations (ALT), loans in subprime securitizations (SUB), and loans insured by the FHA or VA (FHA).[1] We also have data for a fifth segment of the mortgage market, prime or near prime loans not held by the GSEs (NON). However, this category (NON) includes loans held on the banks portfolios as well as loans in Alt-A securitizations. Because this segment overlaps with the ALT segment, they are omitted from this analysis.[2] One further note: the tranches of subprime securitizations and Alt-A securitizations purchased by the GSEs are not included in the GSE segment in this analysis.

---

[1] The data in the GSE and NON segments are from Loan Processing Services (previously McDash) and the data for the ALT, SUB and FHA segments are from the Loan Performance (LP) securities data.
[2] Including the tabulations from this problematic category does not substantively change the results.

Table 1 summarizes the available data. The columns labeled Data- contains the number of loans in the underlying Fed data for each segment at each date, and the column labeled Total- contains an estimate of the total number of loans in that segment in the economy.[3] The percentage is simply the fraction of total loans for which the Fed has loan-level data.

Table 1: Summary of Data

	2006			2007			2008			2009		
Segment	Data*	Total**	%	Data	Total	%	Data	Total	%	Data	Total	%
GSE	16.7	28.8	58	18.6	30.1	62	19.4	31.1	62	18.5	31.0	60
NON	n/a	8.5	n/a	n/a	7.4	n/a	n/a	6.1	n/a	n/a	5.4	n/a
ALT	2.9	5.7	51	3.0	6.0	50	2.6	5.2	50	2.2	4.5	49
SUB	4.1	7.3	56	3.6	6.9	52	2.8	6.3	44	2.4	5.5	44
FHA	2.8	5.7	0.49	2.9	5.5	53	3.5	6.5	54	4.5	8.1	0.56
TOTAL	26.5	56.0	47	28.1	55.8	50	28.3	55.2	51	27.6	54.5	51

***Data columns reflect tabulated data provided to the FCIC from the Federal Reserve. **Totals figures are also from the Fed except for the GSE Total. Those data are from various GSE reports.**

Table 2 compares the rates of serious delinquency in the Fed data to other sources. Again, the columns labeled Data" show the information in the data provided by the Fed. For the total mortgage market (the first two columns), we compare our data to information from the Mortgage Bankers Association National Delinquency Survey (NDS). In the next two columns, we compare our category SUB to the figures from the NDS on serious delinquencies of subprime loans.[4] In general, the Fed data shows slightly higher rates of serious delinquency. (The Fed data are based solely on securitized loans, which may explain the difference.) The last two columns compare the rate of serious delinquency for the GSE loans in the Fed data to rates of serious delinquency reported by Fannie Mae and Freddie Mac. Unlike the Total and SUB columns, which are weighted by the number of loans, for purposes of this comparison the GSE values are weighted by dollar volumes since that is how the GSEs report their data. For the GSE loans, the Fed data slightly understate the rate of serious delinquency.

Table 2: Comparison of Serious Delinquency in Sample

	Total		SUB		GSE	
	Data*	NDS**	Data	NDS	Data	GSE***
2006	2.22%	2.21%	8.73%	7.83%	0.49%	0.55%
2007	4.01%	3.62%	17.14%	14.37%	0.80%	0.83%
2008	7.03%	6.30%	26.26%	23.16%	2.03%	2.18%
2009	10.71%	9.67%	35.61%	30.61%	4.80%	4.82%

***Data figures are computed from the Federal Reserve tabulations. **NDS figures are taken from the Mortgage Bankers Association delinquency survey. ***GSE figures are from Fannie Mae and Freddie Mac.**

[3] The estimates from the total columns are taken from the Federal Reserve. It is our understanding that some of their data is from the Mortgage Bankers Association and from GSE reports.

[4] The NDS is based on a survey of roughly 120 mortgage servicers that voluntarily submit data to the MBA. These servicers self-identify themselves or some of their loans as subprime.

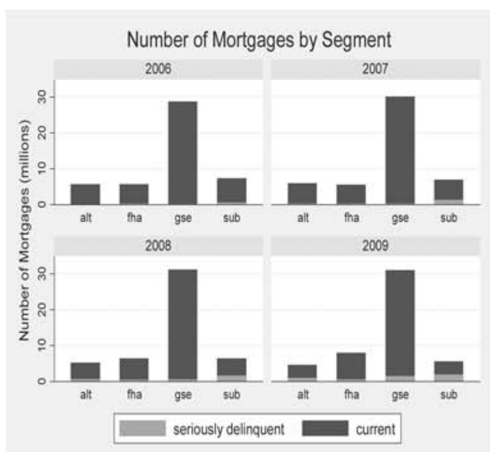
For all of the various segments of the mortgage market (GSE, SUB, ALT and FHA), the loan data from the Federal Reserve are tabulated in groupings defined by eight ranges of FICO scores, six LTV ranges and three size categories. In total, this yields 576 groupings for which we have tabulated data (4 segments x 8 FICO ranges x 6 LTV ranges x 3 size ranges) at each of the four dates: December 31, 2006, 2007, 2008 and 2009.[5] Again, for each of these 576 groupings, the tabulations from the Fed show the number of loans in the grouping and the average rate of serious delinquency for that grouping.

Results

Extrapolating from our data to the entire market (using the data in Table 1), Figure 1 shows the number of loans that are current and that are seriously delinquent loans in each segment; the relatively low delinquency rates, especially in 2006 and 2007 make the chart a bit hard to read. Figure 2 shows the number of loans seriously delinquent in each year and Table 3 provides the numbers, in tabular form, of current and seriously delinquent mortgages in each segment.

In percentage terms, across all years, the SUB and ALT segments are clearly the worst performing. The GSE segment contains a substantial number of seriously delinquent loans by 2009, however this primarily reflects the large number of GSE loans rather than poor performance within this segment. As shown in the remainder of this memo, the distribution of performance is in fact better for the GSE segment than for any of the others.

Figure 1



[5] Some groupings do not have any loans. For example, the GSE segment does not have loans above $417,000. In 2006, 559 of the 720 groupings have at least one loan.

Figure 2

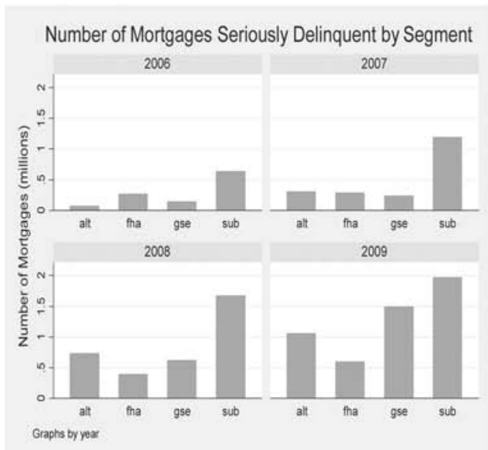


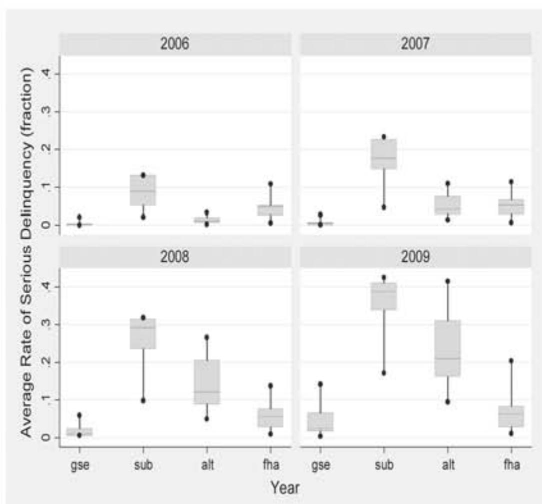
Table 3: Number of Current and Seriously Delinquent Mortgages by Segment (Millions)

	2006		2007		2008		2009	
Segment	Seriously Delinquent	Current	Seriously Delinquent	Current	Seriously Delinquent	Current	Seriously Delinquent	Current
GSE	.15	28.57	.24	29.84	.63	30.55	1.5	29.53
ALT	.07	5.61	.31	5.71	.73	4.49	1.06	3.51
SUB	.64	6.67	1.19	5.76	1.68	4.71	1.97	3.56
FHA	.27	5.43	.29	5.29	.39	6.05	.60	7.42

The average serious delinquency rate in a grouping is a good proxy for its riskiness. As an example, in the tabulations from the Fed, GSE loans with a balance below $417,000, a FICO score between 640 and 659, and an LTV between 80 and 100 percent have an average serious delinquency rate of 0.8 percent in 2006. In contrast, ALT loans with a balance below $417,000, a FICO score between 640 and 659, and an LTV between 80 and 100 percent have a substantially higher average serious delinquency rate of 1.5 percent. Treating this worse performance as an imperfect proxy for risk, we treat the latter grouping as being `riskier than the former.

In Figure 3, the box and whisker plot, each panel shows the distribution of the average serious delinquency rates for a different year. Within each panel, the boxes show the distribution for each segment. For example, the last panel shows the distribution for all four segments in 2009. The vertical axis shows the average rate of serious delinquency in each year. The box marks the range of average serious delinquency between the 75th percentile (the top of the box) and the 25th percentile (the bottom of the box) for the labeled grouping.[6] The line in the middle of the box is the median rate of average serious delinquency for the specific grouping. Using ALT loans in 2009 as an example(the third box and whisker in the 2009 panel), the median loan in that segment is in a tabulated grouping that has an average serious delinquency rate of 21 percent; the 25th and 75th percentiles are 16 percent and 31 percent respectively. The dots at the ends of each figure denote the average rates of serious delinquency for the 5th and 95th percentiles, respectively. Again, for ALT loans, the 95th percentile tabulated grouping the most risky shown has an average delinquency rate of 41 percent in 2009. The 5th percentile tabulated grouping the least risky shown - has an average delinquency rate of 10 percent in 2009.

Figure 3



In each year, the GSE loans have the lowest average rates of serious delinquency (among the four segments) and securitized subprime loans have the highest. There is virtually no overlap in these distributions. For example, in 2009 the 5th percentile tabulated grouping for SUB loans has an average delinquency rate of 17 percent. In contrast, the 95th percentile tabulated grouping for GSE loans has an

[6] The 75th percentile is the rate of serious delinquency where 75 percent of the loans have a rate at that level or lower. The median is the rate at which one-half of the loans have higher rates and one-half of loans have lower rates of serious delinquency.

average delinquency rate of 14 percent. Only a very small percentage of GSE tabulated groupings have average serious delinquency rates that match the average serious delinquency rates of the SUB tabulated groupings. Alt-A loans perform at rates between these two groups. For example, the median grouping of Alt-A loans has an average serious delinquency rate of 21 percent in 2009.

Figure 4 shows another view of the data (the corresponding numbers are detailed in Table 4), this time detailing the number and distribution of loans by year and by average rate of serious delinquency. Again, each of the four panels is for a different year. Within each panel, each bar shows the number of loans in the tabulated groupings with an average rate of serious delinquency just below the level denoted on the horizontal axis. To make the graphs a bit more readable, the bars are not perfectly spaced on the lower end the definitions are a bit finer than in the middle; the last bar on the right represents all loans within the groupings with a rate of serious delinquency of 21 percent or more. The colored areas of each bar shows the segment of the market where those loans reside. In this figure, it is again apparent that the average delinquency rates in the GSE groupings (green) are typically less risky than those in subprime (red) or Alt-A securities (orange).

Figure 4

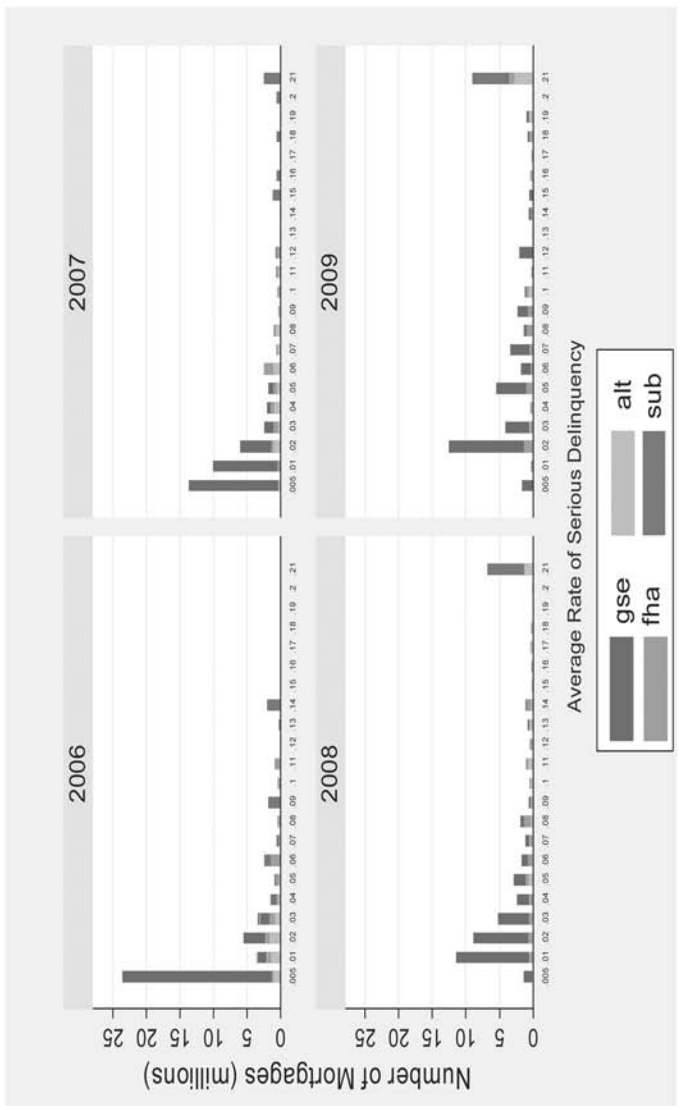

2006
2007
2008
2009
Number of Mortgages (millions)
Average Rate of Serious Delinquency
gse
fha
alt
sub

Table 4: Number of Seriously Delinquent Mortgages by Grouping (Thousands)

	2006				2007				2008				2009			
Serious Delinquency Rate Group	GSE	Alt-A	FHA	Subprime	GSE	Alt-A	FHA	Subprime	GSE	Alt-A	FHA	Subprime	GSE	Alt-A	FHA	Subprime
0.0% - 0.5 %	22,186	1,141	176	7	13,468	64	173	-	1,338	-	10	-	1,617	-	3	-
>0.5% - 1.0%	1,429	1,484	563	121	9,442	14	531	7	10,968	-	504	-	25	-	278	-
>1.0% - 2.0%	3,317	1,685	468	61	4,547	1,122	323	112	8,186	56	637	7	11,163	-	1,357	-
>2.0% - 3.0%	1,336	901	753	412	1,368	397	681	12	4,442	25	645	1	3,533	-	496	6
>3.0% - 4.0%	321	271	394	494	482	1,012	531	54	1,890	8	450	116	23	47	318	-
>4.0% - 5.0%	3	137	630	172	510	636	496	197	1,744	740	375	-	4,450	11	1,000	1
>5.0% - 6.0%	80	18	1,531	786	90	1,081	1,379	7	850	37	778	12	1,474	4	234	1
>6.0% - 7.0%	50	22	-	531	95	75	218	222	670	24	454	-	2,821	-	542	-
>7.0% - 8.0%	-	24	158	234	1	794	171	5	429	200	1,15 3	54	267	10	978	101
>8.0% - 9.0%	-	2	-	1,829	-	149	-	209	295	239	1	1	1,430	-	830	-
>9.0% - 10.0%	-	1	285	123	81	28	328	18	97	130	1	198	149	687	349	-
>10.0% - 11.0%	-	8	733	41	-	380	123	215	5	763	209	35	-	5	198	-
>11.0% - 12.0%	-	-	-	1	1	34	618	79	1	29	403	1	1,927	-	1	1
>12.0% - 13.0%	-	-	6	294	-	130	-	81	179	508	1	25	-	20	-	58
>13.0% - 14.0%	-	1	-	1,980	-	65	-	159	-	121	819	164	516	-	130	-
>14.0% - 15.0%	1	-	1	137	-	23	-	1,155	4	172	-	20	524	-	-	-
>15.0% - 16.0%	-	-	-	27	-	7	1	623	-	27	-	205	119	254	-	28
>16.0% - 17.0%	-	-	-	-	-	3	-	-	2	419	1	-	156	178	-	-
>17.0% - 18.0%	-	-	-	-	-	2	-	636	2	335	-	32	235	66	301	195
>18.0% - 19.0%	-	-	-	14	-	-	-	74	-	3	-	19	275	666	-	-
>19.0% - 20.0%	-	-	-	1	-	-	4	601	75	42	-	76	5	1	3	21
>21.0	1	-	3	42	1	3	3	2,492	2	1,341	6	5,419	329	2,629	1,012	5,116