

**Statement of Sheila C. Bair, Chairman,
Federal Deposit Insurance Corporation
on the Causes and Current State of the Financial Crisis
before the
Financial Crisis Inquiry Commission;
Room 1100, Longworth House Office Building
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Chairman Angelides, Vice Chairman Thomas and Commissioners, I appreciate the opportunity to testify on behalf of the Federal Deposit Insurance Corporation (FDIC) on the causes and current state of the financial crisis—the most severe financial crisis and the longest and deepest economic recession since the Great Depression.

The last major financial crisis—the thrift and banking crisis of the 1980s—resulted in enactment of two laws designed to improve the financial regulatory system: The Financial Institutions Reform, Recovery, and Enforcement Act of 1989 (FIRREA) and the Federal Deposit Insurance Corporation Improvement Act of 1991 (FDICIA). Combined, FIRREA and FDICIA significantly strengthened bank regulation, and provided banks strong incentives to operate at higher capital levels with less risk, but these regulations have also created incentives for financial services to grow outside of the regulated sector.

In the 20 years following FIRREA and FDICIA, the shadow banking system grew much more quickly than the traditional banking system, and at the onset of the crisis, it's been estimated that half of all financial services were conducted in institutions that were not subject to prudential regulation and supervision. Products and practices that originated within the shadow banking system have proven particularly troublesome in this crisis. In particular, the crisis has shown that many of the institutions in this sector grew to be too large and complex to resolve under existing bankruptcy law and currently they cannot be wound down under the FDIC's receivership authorities.

We are now poised to undertake far-reaching changes that will affect the regulation of our entire financial system, including the shadow banking sector. Our reforms must address the causes of the crisis, if we are to reduce as far as possible the chance that it will recur. The financial crisis calls into question the fundamental assumptions regarding financial supervision, credit availability, and market discipline that have informed our regulatory efforts for decades. We must reassess whether financial institutions can be properly managed and effectively supervised through existing mechanisms and techniques.

Our approach must be holistic, giving regulators the tools to address risk throughout the system, not just in those insured banks where we have long recognized that heightened prudential supervision is necessary. To be sure, there can be improvements in the oversight of insured institutions. And some banks themselves exploited the opportunity for arbitrage by funding higher risk activity through third parties or in more lightly regulated affiliates. As a consequence, if the thrust of reform is to simply layer more

regulation upon insured banks, we will simply provide more incentives for financial activity to be conducted in less-regulated venues and exacerbate the regulatory arbitrage that fed this crisis. Reform efforts will once again be circumvented, as they were in the decades following FIRREA and FDICIA.

My testimony will focus on the failure of market discipline and regulation, provide a detailed chronology of events that led to the crisis and suggest reforms to prevent a recurrence.

The Failure of Market Discipline and Regulation

Numerous problems in our financial markets and regulatory system have been identified since the onset of the crisis. Most importantly, these include stimulative monetary policies, significant growth of financial activities outside the traditional banking system, the failure of market discipline to control such growth, and weak consumer protections. Low interest rates encouraged consumer borrowing and excessive leverage in the shadow banking sector. The limited reach of prudential supervision allowed these activities to grow unchecked. Laws that protected consumers from abusive lending practices were weak. Many did not extend to institutions outside of the regulated banking sector.

Similarly, the FDIC's authorities for the orderly wind down of a failed bank did not apply to activity outside of the insured depository. Financial firms grew in both size and complexity to the point that, when the weaker institutions became distressed, there was no legal means to wind them down in an orderly manner without creating systemic risks for the broader system. As a result of their too-big-to-fail status, these firms were funded by the markets at rates that did not reflect the risks these firms were taking.

This growth in risk manifested itself in many ways. Overall, financial institutions were only too eager to originate mortgage loans and securitize them using complex structured debt securities. Investors purchased these securities without a proper risk evaluation, as they outsourced their due diligence obligation to the credit rating agencies. Consumers refinanced their mortgages, drawing ever more equity out of their homes as residential real estate prices grew beyond sustainable levels. These developments were made possible by a set of misaligned incentives among and between all of the parties to the securitization process—including borrowers, loan originators, credit rating agencies, loan securitizers, and investors.

The size and complexity of the capital-market activities that fueled the credit boom meant that only the largest financial firms could package and sell the securities. In addition to the misaligned incentives in securitizations, differences in the regulation of capital, leverage, and consumer protection between institutions in the shadow banking system and the traditional banking sector, and the almost complete lack of regulation of over-the-counter derivatives, allowed rampant regulatory arbitrage to take hold.

Many of the products and services of the non-bank financial institutions that comprised the shadow banking system competed directly with those provided in the traditional

regulated banking system. Eventually, the largest bank and thrift holding companies expanded into the shadow banking system by incorporating products and services into their own more lightly regulated affiliates and subsidiaries. The migration of essential banking activities outside of regulated financial institutions to the shadow banking system ultimately lessened the effectiveness of regulation and made the financial markets more vulnerable to a breakdown.

Thus, it is not surprising that this crisis affected the largest non-bank financial institutions first. It was at this intersection of the lightly regulated shadow banking system and the more heavily regulated traditional banking system where the crisis was spawned and where many of the largest losses for consumers, investors and financial institutions were generated. Outside of the largest and most complex institutions, traditional banks and thrifts continued to rely largely on insured deposits for their funding and most focused on providing core banking products and services to their customers. Eventually, these traditional institutions also suffered extensive losses as many of their loans defaulted as a consequence of collateral damage from the deleveraging effects and economic undertow created by the collapse of the housing bubble.

Why market discipline failed

Over the past two decades, there was a world view that markets were, by their very nature, self-regulating and self-correcting—resulting in a period that was referred to as the "Great Moderation." However, we now know that this period was one of great excess. Consumers and businesses had vast access to easy credit, and most investors came to rely exclusively on assessments by a Nationally Recognized Statistical Rating Agency (credit rating agency) as their due diligence. There became little reason for sound underwriting, as the growth of private-label securitizations created an abundance of AAA-rated securities out of poor quality collateral and allowed poorly underwritten loans to be originated and sold into structured debt vehicles. The sale of these loans into securitizations and other off-balance-sheet entities resulted in little or no capital being held to absorb losses from these loans. However, when the markets became troubled, many of the financial institutions that structured these deals were forced to bring these complex securities back onto their books without sufficient capital to absorb the losses. As only the largest financial firms were positioned to engage in these activities, a large amount of the associated risk was concentrated in these few firms.

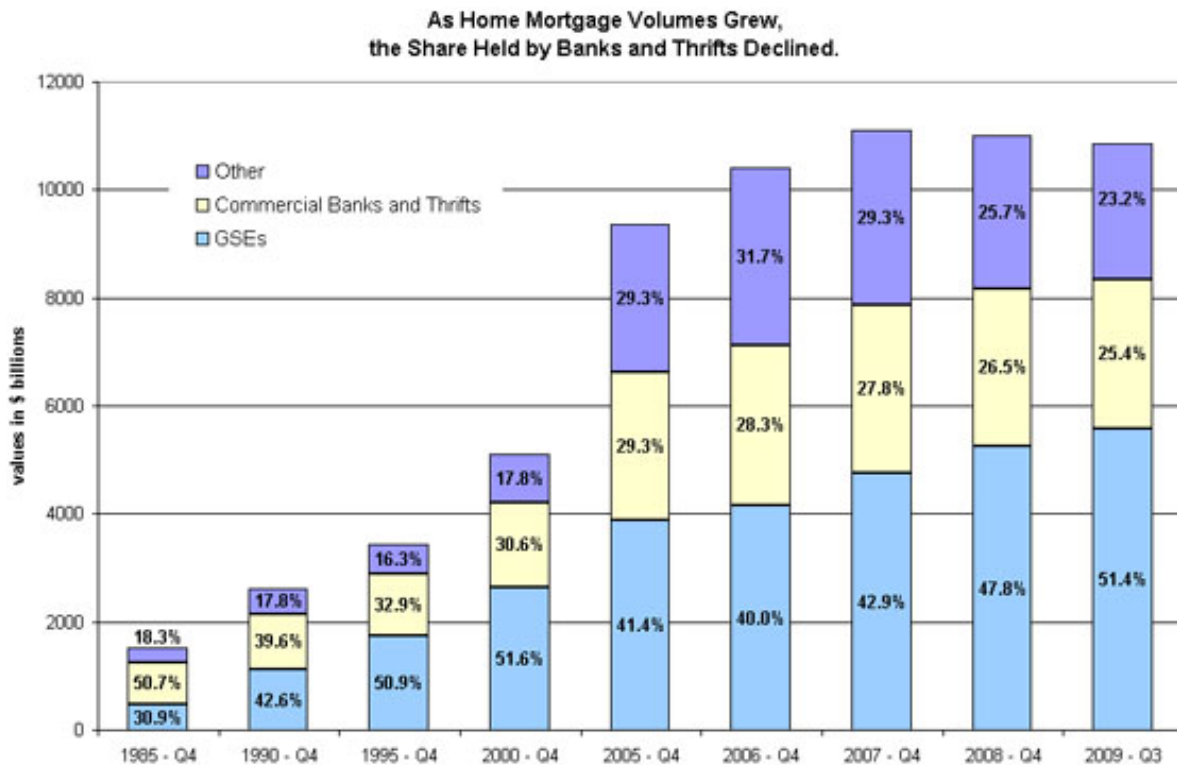
To understand the events that triggered the crisis and necessitated unprecedented government intervention, it is useful to consider how financial markets evolved in the years leading to the crisis, and how failures in market discipline, regulation, supervision, and the management of financial institutions played a contributory role.

The growth of GSEs and the originate-to-distribute model of mortgage finance

Many of the products and practices that led to the financial crisis have their roots in the mortgage market innovations that began in the 1980s and matured in the 1990s. Following large interest-rate losses from residential mortgage investments that precipitated the thrift crisis in the 1980s, banks and thrifts began selling or securitizing a

major share of their mortgage loans with the housing government sponsored enterprises (GSEs). By focusing on originating, rather than holding, mortgages, banks and thrifts were able to reduce their interest-rate and credit risk, increase liquidity, and lower their regulatory capital requirements under the rules that went into effect in the early 1990s.¹ Between 1985 and the third quarter of 2009, the share of mortgages (whole loans) held by banks and thrifts fell from approximately 55 percent to 25 percent. By contrast, the share of mortgages held by the GSEs increased from approximately 28 percent to just over 51 percent, over the same time period (see Figure 1).

Figure 1



Source: HAVER, Flow of Funds

The GSEs became highly successful in creating a market for investors to purchase securities backed by the loans originated by banks and thrifts. The market for these mortgage-backed securities (MBSs) grew rapidly as did the GSEs themselves, fueling growth in the supporting financial infrastructure. The success of the GSE market created its own issues. Over the 1990s, the GSEs increased in size as they aggressively purchased and retained the MBSs that they issued. Many argue that the shift of mortgage holdings from banks and thrifts to the GSE-retained portfolios was a consequence of capital arbitrage. GSE capital requirements for holding residential mortgage risk were lower than the regulatory capital requirements that applied to banks and thrifts.

This growth in the infrastructure fed market liquidity and also facilitated the growth of a liquid private-label MBS market, which began claiming market share from the GSEs in the early 2000's. The private-label MBS (PLMBS) market fed growth in mortgages backed by jumbo, hybrid adjustable-rate, subprime, pay-option and Alt-A mortgages. The PLMBS market drew from technology pioneered by the GSEs, using desk-top underwriting, a process that allowed loan originators to rapidly determine the credit-worthiness of a borrower applying for a conforming loan. This same technology was ultimately adapted by mortgage bankers for Alt-A and subprime loans, speeding the origination process for these products. These mortgage instruments, originated primarily outside of insured depository institutions, fed the housing and credit bubble and triggered the subsequent crisis. In addition, the GSEs – Fannie Mae, Freddie Mac, and the Federal Home Loan banks, were major purchasers of PLMBS.

As interest rates fell throughout most of the 1990s, mortgage originators profited from encouraging and enabling consumers to refinance their mortgage debt. Previous tax law changes (in 1986) had eliminated deductions for non-housing-related interest expenses, which encouraged homeowners to finance a variety of purchases through home equity loans. The financial industry eagerly touted the advantages of housing-linked debt. In the process, consumers became accustomed to achieving lower mortgage payments by refinancing or accessing homeowner equity by tapping home equity lines of credit. Many providers of these products—mortgage brokers, mortgage bankers and mortgage affiliates of bank and other financial holding companies—operated outside the traditional thrift and bank regulatory system.

The well-publicized benefits associated with legitimate rate-reducing mortgage refinancing and rising housing prices conditioned consumers to actively manage their mortgage debt. An unfortunate consequence of this favorable environment for refinancing was fraud. Many consumers have only a limited ability to understand details of standard mortgage contracts let alone the complex mortgages that became common during this period. In this environment, unscrupulous mortgage providers capitalized on the widely advertised benefits associated with mortgage refinance, and took advantage of uninformed consumers by refinancing them into mortgage loans with predatory terms that were not readily transparent to many borrowers.

Consumers lacked protection from toxic mortgage products

Federal consumer protections from predatory and abusive mortgage-lending practices are established principally under the Home Ownership and Equity Protection Act (HOEPA), which is part of the Truth in Lending Act (TILA). TILA and HOEPA regulations are the responsibility of the Board of Governors of the Federal Reserve System (FRB) and apply to both bank and non-bank lenders.

HOEPA, which was enacted in 1994, contains specific statutory protections for a narrow category of high cost loans used for mortgage refinancings. These protections include restrictions on prepayment penalties, balloon payments, and extensions of credit without consideration of a borrower's ability to repay. HOEPA defines these high cost loans in terms of threshold levels for either interest rates or points and fees. Many of the

toxic mortgage products that were originated to fund the housing boom did not fall within the high cost loan definition under HOEPA. However, many of these toxic products could have been regulated and restricted under another provision of HOEPA that requires the FRB to prohibit acts or practices in connection with any mortgage loan that it finds to be unfair or deceptive, or acts and practices associated with refinancing of mortgage loans that it finds abusive or not otherwise in the interest of the borrower.

Problems in the subprime mortgage market were identified well before many of the abusive mortgage loans were made. A joint report issued in 2000 by HUD and the Department of the Treasury entitled *Curbing Predatory Home Mortgage Lending* noted that a very limited number of borrowers benefit from HOEPA's protections because of the high thresholds that a loan must exceed in order for the protections to apply. The report also found that certain terms of subprime loans appear to be harmful or abusive in practically all cases. To address these issues, the report made a number of recommendations, including that the FRB use its HOEPA authority to prohibit certain unfair, deceptive and abusive practices by lenders and third parties. During hearings held in 2000, consumer groups urged the FRB to use its HOEPA rulemaking authority to address concerns about predatory lending. Both the House and Senate held hearings on predatory abuses in the subprime market in May 2000 and July 2001, respectively. In December 2001 the FRB issued a HOEPA rule that addressed a narrow range of predatory lending issues.

It was not until 2008 that the FRB issued a more extensive regulation using its broader HOEPA authority to restrict unfair, deceptive, or abusive practices in the mortgage market. The new regulation, effective in 2009 and 2010, covers closed-end mortgage loans that meet a new definition of "higher priced" mortgage loans. The definition is designed to capture closed-end loans in the subprime mortgage market, and is set by the FRB based on a survey of mortgage rates currently published by Freddie Mac.

For this new category of higher priced mortgage loans, these changes address many of the abuses which led to the current housing crisis and help assure that mortgage borrowers have stronger, more consistent consumer protections, regardless of the lender they are using or the state where they reside. The rule imposes an "ability to repay" standard in connection with higher-priced mortgage loans. For these loans, the rule underscores a fundamental rule of underwriting: that all lenders, banks and nonbanks, should only make loans where they have documented a reasonable ability on the part of the borrower to repay. The rule also restricts abusive prepayment penalties.

As described in our January 8, 2010 comment letter on the FRB's pending mortgage rulemakings, while these standards represent a positive step toward getting back to basics on responsible mortgage lending for higher-priced mortgage loans and traditional HOEPA high cost mortgages, we believe that an ability to repay standard should be required for all mortgages, including interest-only and negative-amortization mortgages and home equity lines of credit (HELOCs). Interest-only and negative-amortization mortgages must be underwritten to qualify the borrower to pay a fully amortizing payment. Otherwise, the consequences we have seen during this crisis will recur.

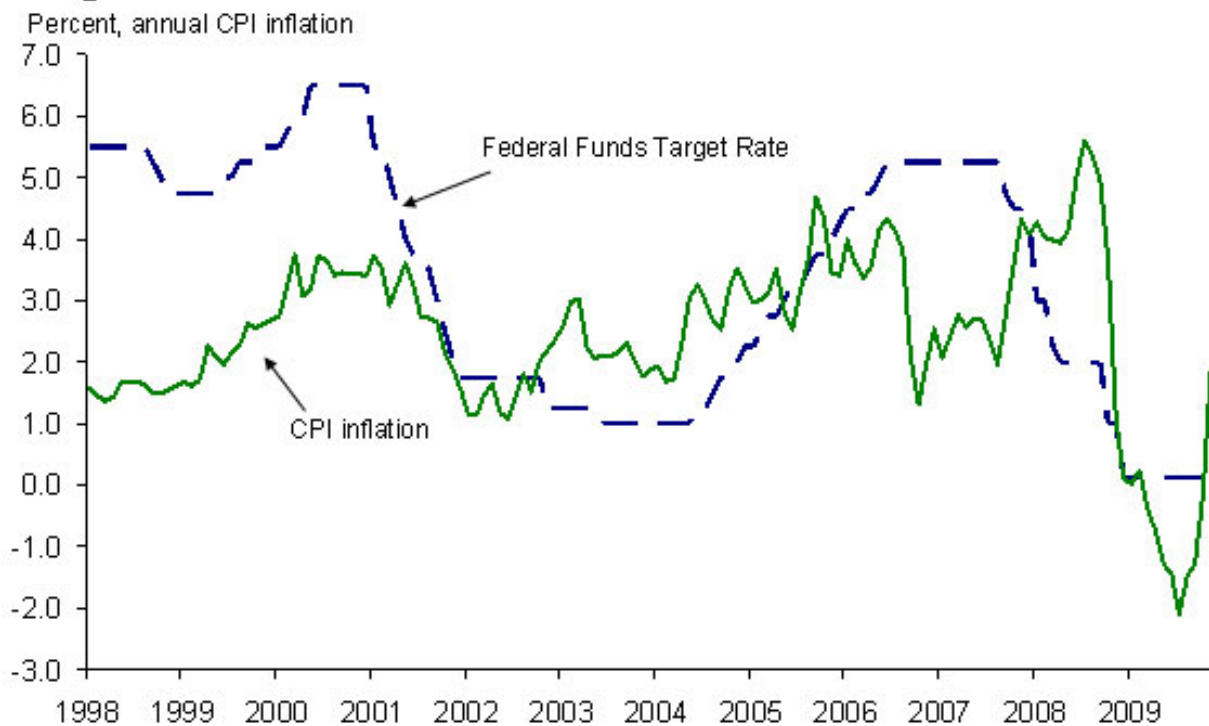
Similarly, the practice of making a HELOC without taking into account the consumer's ability to repay, based on the fully drawn line, or without taking into account the consumer's other obligations, should be prohibited. When unaffordable mortgage loans are made, the individual borrower and broader communities are subjected to unnecessary risks. FDIC-insured banks are already subject to this type of prudential standard. To promote a more even playing field and prevent circumvention of this requirement by nonbank lenders, we believe such an ability to repay standard should apply across-the-board.

Low interest rates stimulate the demand for mortgage debt and housing

Early in the 2000s, two destabilizing events occurred: the technology stock bubble burst and terrorists attacked the United States. In response, the Federal Reserve lowered interest rates to help calm financial markets. As can be seen in Figure 2, the Fed Funds target rate declined from 6.5 percent at the end of 2000 to 1.75 percent at the end of 2001 and further rate cuts continued until the target rate reached 1.0 percent in June 2003. The Federal Reserve didn't begin to raise rates until June 2004. Many economists and commentators have attributed a part of the housing bubble to this extraordinarily long period of very low interest rates.

Figure 2

Target Federal Funds Rate and CPI Inflation



Source: Federal Reserve, Haver

In 2002 and early 2003, a record boom in the volume of mortgage originations occurred, driven primarily by the refinancing of existing mortgages. By mid-2003, long-term mortgage interest rates tested historical lows and virtually every fixed-rate mortgage in America became a candidate for refinancing. The result was a wave of refinancing activity that was initially dominated by prime, fixed-rate loans. During 2003, over 80 percent of all applications were for fixed-rate loans, the majority of which were for refinancing existing mortgages. Lenders grew their origination infrastructure to accommodate the surge in mortgage demand.

Home-price appreciation in the United States measured 5 percent or less in every year during the 1990s, but accelerated starting in 2000. By 2004, house prices were rising at double-digit rates. The home-price boom was concentrated first in the metropolitan areas of California, the Northeast, and Florida; it then spread to cities in much of the Mountain West and further inland. While home prices were effectively doubling in a number of boom markets, median incomes were growing much more slowly, severely reducing the affordability of home ownership.

Home price appreciation helped set the stage for dramatic changes in the structure and funding of U.S. mortgage loans. To the extent that prime borrowers with a preference for fixed rates had locked in their loans by 2003, the mortgage industry began to turn its attention—and its ample lending capacity—toward less creditworthy borrowers and home buyers struggling to cope with the high cost of housing. Originations shifted from refinancing to purchase financing, which rose to more than half of originations in 2004 through 2006. Another result was an increase in the origination of subprime loans, which more than doubled in 2004 and peaked at just over 20 percent of all originations in 2005 and 2006.

Declining affordability in high-priced housing markets contributed to a shift toward nontraditional loan originations, such as interest-only and pay-option mortgages. New mortgage products with artificially low initial payments were often underwritten at the low initial payment, rather than the future higher payment that would result when the interest rate reset. The originators and investors assumed that housing prices would continue to increase and homeowners would refinance when the mortgage rates reset.

Mortgage refinancing was also increasingly being used to tap home valuation gains, thus decreasing home-owner equity. Data from Freddie Mac show that in early 2003, only about 7 percent of mortgage refinancing transactions took out cash; by 2006, over 30 percent were cash-out transactions. The Federal Reserve Board reports that by 2006, the ratio of household debt-service payments to disposable income increased almost 30 percent from the early 1990s. Still, few homeowners defaulted on their mortgages, as home-price appreciation, historically low interest rates, and relaxed underwriting standards made refinancing an easy and attractive option.

Private-label MBS and structured-debt fund a housing bubble

Increasing home valuations, conforming loan limits on GSE mortgages, and declining home affordability created incentives for financial firms to create new mortgage

products. These products required the issuance of private-label MBSs for funding. In contrast to the MBSs issued by GSEs, which were pass-through securities backed primarily by prime quality 30-year amortizing loans and fully guaranteed against default, many private-label MBS securities were based on lower-quality mortgage pools and left investors exposed to the risk of default.

Private-label MBSs suffer losses when the mortgages that underlie the security default. The securities typically issued by the originators of private-label MBSs offer investors alternative levels of protection against default risk by pooling mortgage cash flows and paying them out to MBS investors through a tiered, or tranching, priority structure.

A typical private-label MBS might issue six tranches or securities to fund the mortgage pool of assets it purchases. Each tranche has an associated par value and yield and all, except, perhaps the most junior tranches will be rated by a credit rating agency. The cash flows from the mortgage pool owned by the MBS flow through a "waterfall" created by the terms of the different tranches. The most senior mortgage investments (typically AAA-rated) have the highest priority claim on the mortgage-pool cash flows and are paid first. The remaining cash flows are then allocated to fill the terms of the next highest priority tranche and so on through the priority structure. When all the mortgages in the pool are performing, each tranche in the MBS structure will receive the promised cash flows. As mortgages default, the lowest priority tranche suffers losses first. If the mortgage pool losses are large enough, the claims of the lowest tranche could be wiped out completely and the second-lowest priority tranche would begin to bear losses. As losses grow, they are spread to sequentially higher priority tranches.

During the 1990s, much of the underlying collateral for private-label MBSs was comprised of prime jumbo mortgages—high quality mortgages with balances in excess of the GSE loan limits. During this period, the securitizing institution would often have to retain the risky tranches of the structure because there was no active investor market for these securities. These tranches would be the first to suffer losses, so it was natural that third-party investors would force the originator to hold these tranches, ensuring strong incentives to control mortgage-pool risk. The highly rated tranches of private-label MBSs were always in demand as they were perceived as having little credit risk and paid relatively high yields.

However, the lack of demand for the high-risk tranches limited the growth of private-label MBSs. In response, the financial industry developed two other investment structures—collateralized debt obligations (CDOs) and structured investment vehicles (SIVs). These structures were critical in creating investor demand for the high-risk tranches of the private-label MBSs and for creating the credit-market excesses that fueled the housing boom.

CDOs are complex structured debt securities similar in many ways to private-label MBSs. The primary difference between CDOs and MBSs is the collateral that is securitized. MBSs are based on the cash flows from a pool of individual mortgage loans. By contrast, CDOs are collateralized by pools of other debt securities which could be (and in many cases were) MBSs. CDOs purchase debt securities, pool the cash

flows from these securities, and then sell securities created from pooling the cash flows of the original securities. Like a private-label MBS, a CDO might have numerous tiers and issue corresponding tranches of securities with different claims' priorities and credit ratings.

SIVs are similar to CDOs in that they also purchase debt securities. They differ from CDOs in that they purchase long-term debt securities and issue both short- and medium-term securities to fund those securities that they purchase and subsequently pool. The short-term securities issued by the SIVs were typically collateralized commercial paper and many of these securities were highly rated and typically were purchased by money market mutual funds.

CDOs and SIVs became the ready purchasers of the lower-rated tranches of private-label MBSs. High-risk (lower-rated tranches) private-label MBS securities were often pooled with other securities to create CDOs and SIVs. CDOs and SIVs could also take on mortgage risk synthetically by purchasing credit default swaps (CDSs) on securities referencing subprime and Alt-A MBSs. The pooling of cash flows from a portfolio of debt securities, which could include CDSs, was presumed to generate substantial diversification benefits, and rating agencies assigned high-quality credit ratings to a large share of the securities issued by CDOs and SIVs. The end result was that some CDOs and SIVs could issue highly rated securities and commercial paper to fund their exceptionally low-quality asset pools of debt securities.

The growth of the mortgage-linked CDS market allowed investors to take on exposure to the subprime and Alt-A markets without actually owning the mortgages or the MBSs, CDOs or SIVs obligations on entities that did own the mortgages. Through the use of credit derivatives, investor exposure to losses in these markets was multiplied and became many times larger than the exposures generated by the individual mortgages alone.

As the private-label MBS market grew, issuances became increasingly driven by interest-only, hybrid adjustable-rate, second-lien, pay-option and Alt-A mortgage products. Many of these products had debt-service burdens that exceeded the homeowner's payment capacity. For example, Alt-A mortgages typically included loans with high loan-to-value ratios or loans where borrowers provided little or no documentation regarding the magnitude or source of their income or assets. Unfortunately, this class of mortgage products was particularly susceptible to fraud, both from borrowers who intentionally overstated their financial resources and from the mortgage brokers who misrepresented borrower resources without the borrower's knowledge.

These new classes of mortgage products were especially profitable to originate since virtually all of them carried high fees and high implicit rates of interest. Homeowners found them appealing because many included an initial period of artificially low payments and, for some, the underwriting standards allowed them to qualify for a mortgage when traditional products and underwriting criterion would deny them credit.

By late 2006, the attractive yields offered by private-label MBSs were readily attracting investors. Such securities represented more than 55 percent of all MBSs issued. Consumers became comfortable with the idea of frequent mortgage refinancing and many eagerly adopted these new mortgage products to benefit from the low initial payment period. In many respects, the "refinance often" model mistakenly became, for many consumers, a vision of "smart money management."

The role of rating agencies

It seems unlikely that a very liquid private-label MBS market would have existed without market-accepted credit agency ratings. In many cases, relatively little specific detail was made available to investors about the actual loans that were included in private-label MBS pools, and even if available, it would have been very expensive for individual investors to analyze the underlying pool risk characteristics.

Once a rating was accepted, and as long as the securities performed well, few investors found cause to question the accuracy of the rating or to raise questions about rating agencies' opaque proprietary risk-assessment methodologies. As we can now fully appreciate, the outsourcing of the risk assessment of private-label MBSs and the securities issued by CDOs and SIVs to rating agencies turned out to be particularly problematic. Important flaws in agency ratings methodologies did not become apparent until housing prices stopped appreciating.

With these high ratings, MBS, CDO, and SIV securities were readily purchased by institutional investors because they paid higher yields compared to similarly rated securities. In some cases, securities issued by CDOs were included in the collateral pools of new CDOs leading to instruments called CDOs-squared. The end result was that a chain of private-label MBS, CDO and SIV securitizations allowed the origination of large pools of low-quality individual mortgages that, in turn, allowed over-leveraged consumers and investors to purchase over-valued housing. This chain turned toxic loans into highly rated debt securities that were purchased by institutional investors. Ultimately, investors took on exposure to losses in the underlying mortgages that was many times larger than the underlying loan balances. For regulated institutions, the regulatory capital requirements for holding these rated instruments were far lower than for directly holding these toxic loans.

The crisis revealed two fatal problems for CDOs and SIVs. First, the assumptions that generated the presumed diversification benefits in these structures proved to be incorrect. As long as housing prices continued to post healthy gains, the flaws in the risk models used to structure and rate these instruments were not apparent to investors. Second, the use of short-term asset-backed commercial paper funding by SIVs proved to be highly unstable. When it became apparent that subprime mortgage losses would emerge, investors stopped rolling-over SIVs commercial paper. Many SIVs were suddenly unable to meet their short-term funding needs. In turn, the institutions that had sponsored SIVs were forced to support them to avoid catastrophic losses. A fire sale of these assets could have cascaded and caused mark-to-market losses on CDOs and other mortgage-related securities.

Employee compensation

Our discussion of market failure in this crisis can not be complete without examining the role of employee compensation and its contribution to the risk undertaken by financial institutions. The crisis has shown that most financial-institution compensation systems were not properly linked to risk management. Formula-driven compensation allows high short-term profits to be translated into generous bonus payments, without regard to any longer-term risks. Many derivative products are long-dated, while employees' compensation was weighted toward near-term results. These short-term incentives magnified risk-taking.

A similar dynamic was at work in the mortgage markets. Mortgage brokers and bankers went into the subprime and other risky markets because these markets generated high returns not just for investors but also for the originators themselves. The standard compensation practice of mortgage brokers and bankers was based on the volume of loans originated rather than the performance and quality of the loans made. From the underwriters' perspective, it was not important that consumers be able to pay their mortgages when interest rates reset, because it was assumed the loans would be refinanced, generating more profit by ensuring a steady stream of customers. The long-tail risk posed by these products did not affect mortgage brokers and bankers incentives because these mortgages were sold and securitized. The lack of a downside in these compensation schemes ultimately hurt both those who could not pay their risky mortgages and the economy.

Lessons learned

As the crisis has demonstrated, the market, abetted by the alchemy of rating-agency assisted securitization, did not prevent the growth of excessively easy access to credit and the resultant massive economic loss. Because markets are not always self-regulating and self-correcting, we need to find ways to strengthen market discipline. Central to this task, incentives need to be realigned so that consumers, investors and financial institutions accurately assess the risks they undertake. For instance, loan originators and firms that securitize these loans should have to retain some measure of recourse to ensure sound underwriting.

Consumers should be given financial products that are easy to understand and accurately reflect their ability to repay the loans. Investors and creditors should face some amount of loss, in the event of default; this should cause them to perform due diligence and not simply rely on third-party assessments of the quality of the investment. And finally, we must impose market discipline by ending too big to fail. This is best accomplished by establishing a credible resolution regime for large interconnected firms.

Failure of regulation

Not only did market discipline fail to prevent the excesses of the last few years, but the regulatory system also failed in its responsibilities. There were critical shortcomings in

our approach that permitted excessive risks to build in the system. Existing authorities were not always used, regulatory gaps within the financial system provided an environment in which regulatory arbitrage became rampant, and the failure to adequately protect consumers created safety-and-soundness problems. Moreover, the lack of an effective resolution process for the large, complex financial institutions limited regulators' ability to manage the crisis. Looking back, it is clear that the regulatory community did not appreciate the magnitude and scope of the potential risks that were building in the financial system.

For instance, private-label MBSs were originated through mortgage companies and brokers as well as portions of the banking industry. The MBSs were subject to minimum securities disclosure rules that are not designed to evaluate loan underwriting quality. Moreover, those rules did not allow sufficient time or require sufficient information for investors and creditors to perform their own due diligence either initially or during the term of the securitization. For banks, once these loans were securitized, they were off the balance sheet and no longer on the radar of many banks and bank regulators.

With hindsight, the financial innovations that led to the crisis, while complex in many respects, can be understood. At the time the bubble was building, few saw all the risks and linkages that we can now better identify. The traditional tools used by safety-and-soundness regulators, like peer institution analysis, did not detect individual institution excesses because many of the peer institutions also analyzed engaged in the same risky activities. These activities were profitable, until the risky activities undertaken by all became unsustainable.

Many of the structured finance activities that generated the largest losses were complex and opaque transactions, and they were only undertaken by a relatively few large institutions. Access to detailed information on these activities—the structuring of the transactions, the investors who purchased the securities and other details—was not widely available on a timely basis even within the banking regulatory community.

Record profitability within the financial services industry also served to shield it from some forms of regulatory second-guessing. The bank and thrift industry reported six consecutive years of record earnings from 2001 through 2006. High earnings can represent the outcome of successful business strategies, but they can also be a potential red flag for high-risk activities. Often, the potential risks associated with strategies that give rise to outsized profits are not obvious especially when supervisors are examining new bank products or activities.

The financial regulatory system collectively did not rein in many of the risky financial activities that helped create the conditions for the crisis. Where law or regulation does not expressly restrict activities, supervisors rely on judgment to identify risk and the exercise of formal or informal corrective action to affect behavior. For supervisors to compel a change in behavior, however, requires a strong case for remedial action. When banks post many quarters or even years of repeated high earnings, preventative actions can be difficult. For example, underwriting standards were clearly deteriorating during the credit boom, yet the industry reported a record low non-current loan ratio of

0.70 percent in the second quarter of 2006. It proved difficult for regulators to rein in profitable legal financial activities without hard evidence that the activities were creating unwarranted risk. In retrospect, it is clear that supervisors were not sufficiently forward looking in identifying and correcting imprudent risks. This needs to be addressed, by strengthening regulatory standards, requiring credit quality analysis to be more forward looking, and establishing better supervisory benchmarks for identifying excessive risk taking. Current profitability alone is not a sufficient measure of safety and soundness.

In concert with mortgage-market innovations over the past two decades, financial institutions became much bigger and more complex. Much of the growth in banking organizations resulted from consolidations and acquisitions. Outside of depository institutions, growth was organic, but much of it was driven by credit securitization and credit risk transfer activities. For example, CDSs began only in the late 1990s, and have grown at a geometric pace since they began trading. CDOs and SIVs were more recent examples of credit risk transfer activities.

Only the largest financial firms are prominent dealers in any of these opaque activities and many of these institutions are subject to some regulatory oversight. The securities themselves, CDOs and SIVs, are subject to securities disclosure laws, but CDSs and other derivatives are specifically exempted from regulation. The crisis amply demonstrates the need for regulatory oversight and improved transparency of the derivative and structured-debt markets.

Similarly, large institutions are the ones most likely to be involved in all types of complex financial "innovations." In the current system, the risks generated by off-balance-sheet activities were exceptionally hard to assess. Yet, as the crisis has demonstrated, these off-balance-sheet activities can seriously harm the finances of the consolidated organization and the economy more widely. The increasing size, span, and complexity of financial institutions have not only undermined market discipline, but have also made regulation and supervision remarkably difficult.

Another barrier to collecting accurate and comprehensible information on the state of the financial system was the growing importance of the shadow banking sector. Credits that were once held on bank and thrift balance sheets as loans became intermediated into private-label securities and distributed by a host of capital market intermediaries. As the credit bubble was building, regulatory authorities came to believe that credit risks were being dispersed to institutional investors who were capable of managing the risks. It is now obvious that these beliefs were unwarranted. In hindsight, it is fair to say that regulators either did not have sufficient information to fully understand how concentrated risk was becoming, or if regulators had access to the information, they were unable to understand and identify the risks.

In addition to the advantageous capital treatment of off-balance-sheet assets, other types of regulatory arbitrage were rampant. In the mid-1990s, bank regulators working with the Basel Committee on Banking Supervision (Basel Committee) introduced a new set of capital requirements for trading activities. The new requirements were generally much lower than the requirements for traditional lending under the theory that banks'

trading-book exposures were liquid, marked-to-market, mostly hedged, and could be liquidated at close to their market values within a short interval—for example 10 days.

The market risk rule presented a ripe opportunity for capital arbitrage, as institutions began to hold growing amounts of assets in trading accounts that were not marked-to-market but "marked-to-model." These assets benefitted from the low capital requirements of the market risk rule, even though they were in some cases so highly complex, opaque and illiquid that they could not be sold quickly without loss. Indeed, in late 2007 and through 2008, large write-downs of assets held in trading accounts weakened the capital positions of some large commercial and investment banks and fueled market fears.

Capital regulation permits financial institutions to use derivatives and collateral to reduce their capital requirements by hedging risk. This can present opportunities for institutions to exploit gaps or loopholes in regulation and encourage risk-taking that is unsupportable for the financial system as a whole. For example, an unsustainable volume of CDSs underwritten by a largely unregulated London-based affiliate of AIG, an AAA-rated insurance company, enabled a number of institutions to reduce their capital requirements using the regulatory benefits of hedging.² Despite the fact that it underwrote an unsustainable volume of CDSs—many guaranteeing protection on subprime backed MBS, CDO and SIV securities—the rating agencies continued to affirm AIG's AAA rating. In retrospect, it is clear that market participants used ratings to arbitrage differences in regulations and capital requirements across sectors in a way that both concentrated and obscured underlying risks and made the financial system more fragile.

In 2001, regulators reduced capital requirements for highly rated securities. Specifically, capital requirements for securities rated AA or AAA (or equivalent) by a credit rating agency were reduced by 80 percent for securities backed by most types of collateral and by 60 percent for privately issued securities backed by residential mortgages. For these highly rated securities, capital requirements were \$1.60 per \$100 of exposure, compared to \$8 for most loan types and \$4 for most residential mortgages.

Like the market risk rule, this rule change also created important economic incentives that altered financial institution behavior by rewarding the creation of highly rated securities from assets that previously would have been held on balance sheet. For example, as discussed earlier, the production of large volumes of AAA-rated securities backed by subprime and Alt-A mortgages was almost certainly encouraged by the ability of financial institutions holding these securities to receive preferential low capital requirements solely by virtue of their assigned ratings from the credit rating agencies.

Capital requirements were lowered for securities borrowing and lending operations both through rule makings and through interpretive letters. Reducing the capital required for these activities allowed banking organizations and securities broker dealers to increase the leverage and / or reduce the costs associated with these activities. While these activities traditionally had very low loss levels, due in large part to the highly liquid and marketable nature of the collateral (U.S. Treasury securities, GSE issued debt and

securities, and U.S. listed equities) additional forms of collateral such as structured finance products were being financed using repo and securities lending. Excess leverage using tri-party repo arrangements was a contributing factor in the failure of Lehman Brothers Inc. Going forward, regulators should increase the capital and margin required for these activities, and determine whether certain collateral should be ineligible for repo or securities borrowing and lending activities.

There are differences in regulatory capital between banks and holding companies. Capital requirements for bank holding companies are less stringent, qualitatively and quantitatively, than those applicable to insured banks. Specifically, leverage ratio requirements are lower for bank holding companies and, unlike insured banks, bank holding companies are permitted to include, within limits, certain types of hybrid capital instruments and subordinated debt as regulatory tier 1 capital.

The capital differences have created a situation where certain large bank holding companies became significantly more leveraged on a consolidated basis. The policy rationale for lower capital requirements at the holding company was presumably that these entities did not enjoy an explicit federal safety net. As it transpired during the crisis, however, a number of nonbanking affiliates sought either the support of their affiliated federally insured banks or other forms of federal support. There is reason for concern, therefore, that a lower capital requirement for holding companies is one of the factors that may contribute to an unwarranted expansion of the federal safety net.

For example, in 2005, the Securities and Exchange Commission allowed large broker dealers to adopt lower capital standards in their Consolidated Supervised Entity (CSE) capital rules without the leverage requirement applicable to U.S. banks. Subsequent to the adoption of the CSE capital rules, the large broker dealers markedly increased their use of financial leverage. In 2008, two of the five institutions using the CSE capital rules collapsed, one was acquired, and the other two experienced liquidity issues. The issues facing the large broker dealers are attributable to multiple factors, but we do believe differences in capital requirements between these institutions and commercial banks may have encouraged the use of financial leverage at these five institutions, making them more fragile and less resilient to the effects of the crisis.

The federal housing GSEs operated with considerably lower capital requirements than those that applied to banks. Low capital requirements encouraged an ongoing migration of residential mortgage credit to these entities and spurred a growing reliance on the originate-to-distribute business models that proved so fragile during the crisis. Not only did the GSEs originate MBSs, they purchased private-label securities for their own portfolio, which helped support the growth in the Alt-A and subprime markets. In 2002, private-label MBSs only represented about 10 percent of their portfolio. This amount grew dramatically and peaked at just over 32 percent in 2005.

In 2004, the Basel Committee published a new international capital standard, the Basel II advanced internal ratings-based approach (as implemented in the United States, the Advanced Approaches), that allows banks to use their own internal risk assessments to compute their risk-based capital requirements. The overwhelming preponderance of

evidence is that the Advanced Approaches will lower capital requirements significantly, to levels well below current requirements that are widely regarded as too low.

Thus, despite widespread discussion of strengthening capital requirements, including recent proposals by the Basel Committee, banks around the world continue to implement Advanced Approaches designed to lower those requirements. The basic engine of capital calculation in the Advanced Approaches, its so-called "supervisory formulas," and the use of banks' own risk estimates as inputs to those formulas, remain in place even though there is growing evidence that these formulas are seriously flawed.

These critical elements of the Advanced Approach will produce capital requirements that are both too low and too subjective. Large reductions in risk-based capital requirements under the Advanced Approach could effectively swamp the beneficial effects of other reforms the Basel Committee has proposed. Unrestricted use of the Advanced Approach risks a situation in which these capital reforms ultimately are little more than mitigating factors that turn a large drop in capital requirements into a somewhat smaller drop, resulting in a failure to address the excessive leverage that preceded the crisis.

These considerations strongly support the use of a simple and straightforward international leverage constraint as a complement to the risk-based capital rules. The FDIC has advocated a minimum leverage requirement for many years and we are gratified that this proposal is included in the recent Basel Committee consultative package.

Even with a simple leverage constraint, however, we believe that allowing the Advanced Approach to be used to effect an ongoing reduction in risk-based capital requirements during a multi-year project to strengthen requirements is unwise. I am and continue to be, a strong advocate of the view that the Advanced Approaches should not be used to reduce capital requirements.

The Need for Regulatory Reform

The financial crisis revealed that risks grew across the financial system, unimpeded by a stove-piped financial regulatory framework. Non-banks originated subprime loans. Insurance companies wrote credit default swaps. Bank underwriting practices deteriorated. Consumer protections were deficient across the system. Regulators were slow to identify risks before the industry experienced widespread losses and even slower to identify the systemic nature of the underlying problems. The activities of unsupervised financial entities outside the traditional banking system made it more difficult for regulators and market participants to understand the real dynamics of bank credit markets and public capital markets. The existence of one regulatory framework for insured institutions and a much less stringent regulatory scheme for non-bank entities created the conditions for arbitrage that permitted the development of more risky and harmful products and services outside regulated entities.

By 2007, banking regulators had come to understand that they did not have the proper tools to wind down a large complex non-depository institution without causing disruptions to the broader financial markets. As a result, the government was forced to rely on ad hoc measures involving government support to stabilize the situation. An exception was the Fall 2008 resolution of the \$300 billion savings bank Washington Mutual (WAMU), which the FDIC was able to resolve without disruption and without cost to the government. We were able to use existing regulatory authorities because the vast majority of WAMU's operations resided within the insured depository

The WAMU resolution—with a private sector acquirer—reflected an effective bidding process and regulatory action that facilitated a closing while the institution still had value that exceeded its insured deposit liabilities. While creditors and bondholders were treated as mandated by statute, it was a seamless transition for depositors and other bank customers. As evidenced by the orderly resolution, WAMU could be resolved without posing systemic risk. The process worked as Congress intended and imposed losses on shareholders and uninsured creditors. The WAMU resolution process mirrors the way in which a large interconnected financial institution would be treated under proposals currently before Congress.

Leading into the crisis, most of the largest financial firms were viewed as having sufficient capital and earnings to weather an economic downturn, even if one or more of them failed. There was little recognition of how interconnected and fragile these large firms had become through their origination and purchases of highly leveraged, structured debt (MBSs, CDOs, SIVs) and closely related derivatives. Regulators were wholly unprepared and ill-equipped for a systemic event that initially destroyed liquidity in the shadow banking system and subsequently spread to the largest firms throughout the financial system.

In effect, the management of these large, complex financial firms and the markets in which they operated acted as if these firms were too big to fail. Prior to the crisis these firms had virtually unlimited access to artificially cheap financing that only encouraged them to grow and take additional risks. Unfortunately the notion that they were too big to fail has proven to be true, as massive amounts of taxpayer funds have been injected into these firms to prevent their failure and thus maintain financial stability during the crisis.

Why are these firms too big to fail? These firms have become highly leveraged and massively complex with multiple financial subsidiaries, extensive off-balance-sheet activities and opaque financial statements. These expansive inter-connected structures were managed as if they were a single entity, ignoring the corporate legal separateness of their many subsidiaries. In addition, these firms were highly interconnected through their capital markets activities, such as derivatives, private-label MBSs and structured-debt issuance.

This increased complexity was not accompanied by changes in our resolution regime. The FDIC only has authority to take over the insured institutions in the holding company, not the holding company itself. Where banks are just one part of these

interconnected structures, it is not possible to take over and resolve the bank separately from other parts of the holding company. As a result, it is extremely difficult to take over and rapidly unwind these institutions under our current rules.

The Reform Agenda

The massive expenditure of public funds and the near collapse of the financial system have demonstrated that we need major financial reforms. We must make fundamental changes to reduce moral hazard and improve the system's resiliency in the face of a financial crisis.

Resolution Authority

Foremost among needed reforms is a new legal and regulatory framework for large interconnected firms to ensure their orderly wind-down while avoiding financial disruptions that could devastate our financial markets and economy. A resolution mechanism that makes it possible to break-up and sell a large failed interconnected firm offers the best option. It should be designed to protect the public interest, prevent the use of taxpayer funds, and provide continuity for the failed firm's critical financial functions. The FDIC's authority to resolve failing banks and thrifts is a good model.

This is the same model that has allowed the FDIC to seamlessly resolve thousands of institutions over the years. We protect insured depositors while preserving vital banking functions. The FDIC has the authority to move key functions of the failed bank to a newly chartered bridge bank. Losses are imposed on market players who reap the profits in good times, but who also should bear the losses in the case of failure. Shareholders of the failed bank typically lose all of their investment. Creditors generally lose some or all of the amounts owed them. Top management is replaced, as are other employees who contributed to the institution's failure. In addition, the assets of the failed institution are sold to a stronger, better managed buyer.

If this process were applied to large interconnected financial institutions—whether banks or non-banks—it would prevent instability and contagion, and enforce market discipline while promoting fairness. Financial markets would continue to function smoothly, while the firm's operations are transferred or unwound in an orderly fashion. The government would step in temporarily to provide working capital (liquidity) for an orderly wind down, including providing necessary funds to complete transactions that are in process at the time of failure.

We propose that working capital for such resolutions come from a reserve that the industry would fund in advance. This would provide better protection for taxpayers than borrowing funds when needed and repaying the borrowings through industry assessments. Resolution activities require working capital up front since the failed firm would immediately need liquidity to support the firm's vital operations, maintain the firm's value, and help preserve system-wide liquidity.

Building a fund up front would also help prevent the need to assess institutions during an economic crisis—on a procyclical basis, and would assure that failed firms have paid

something into the fund. Paying regular premiums would help covered financial institutions better manage their expenses. To avoid double charging banks that already pay deposit insurance premiums, the assessments should be based on assets held outside of insured depositories. Any costs associated with the resolution not covered by the fund would be recouped through additional industry assessments.

A pre-funded reserve is superior to an ex-post funding system. In an ex-post system, firms that fail never pay and the costs are borne by the surviving firms. Regardless of how well-designed, an ex-post funding system necessitates borrowing (from the taxpayers) to fund the resolution. Even if the funds were fully repaid by the industry, the use of government funds would undoubtedly be viewed by the public as a government bailout. A pre-funded system reduces the likelihood of borrowing. In the midst of a crisis, the resolution authority should not feel constrained to delay or forego the optimal resolution by a reluctance to borrow funds from the Treasury in order to avoid the appearance of a bailout.

This proposed resolution mechanism, with a pre-funded reserve, would address systemic risk without a taxpayer bailout and without the near panic we saw a year ago. It would provide clear rules and signals to the market. Most importantly, over the long run, it would provide the market discipline that is so clearly lacking today

Incentives to Reduce Size and Complexity

A reserve fund, built from industry assessments, would also provide economic incentives to reduce the size and complexity that makes closing these firms so difficult. One way to address large interconnected institutions is to make it expensive to be one. Industry assessments could be risk-based. Firms engaging in higher risk activities, such as proprietary trading, complex structured finance, and other high-risk activities would pay more.

Large interconnected firms should also be required to develop their own liquidation plan—a living will so to speak—which would demonstrate that they could be broken apart and sold in an orderly manner. An approved liquidation plan would result in greater legal and, in particular, functional separation of affiliates within these large financial holding companies and greater autonomy and firewalls surrounding insured banks.

The largest firms that impose the most potential for systemic risk should also be subject to greater oversight, higher capital and liquidity requirements, and other prudential safeguards. Off-balance-sheet assets and conduits, which turned out to be not-so-remote from their parent organizations in the crisis, should be counted and capitalized on the balance sheet. We fully support the changes that the Financial Accounting Standards Board (FASB) has implemented in FAS 166 and 167, which would accomplish the goals of bringing the off-balance-sheet assets and conduits back on institutions' balance sheets.

Taken together, these measures would help ensure that our largest and most complex firms can either withstand a significant crisis, or be wound-down without resort to a government backstop. Only by instituting a credible resolution process and penalizing high-risk activity will we be able to limit systemic risk, and the long-term competitive advantages and public subsidy it provides to the largest institutions under the current system.

Systemic Risk Council

The significant size and growth the shadow banking system has made it all the more difficult for regulators or market participants to understand the real dynamics of either bank credit markets or public capital markets. The existence of one regulatory framework for insured institutions and a much less stringent regulatory scheme for non-bank entities created the conditions for arbitrage that permitted the development of risky and harmful products and services outside regulated entities.

A distinction should be drawn between the direct supervision of large interconnected financial firms and the macro-prudential oversight and regulation of developing risks that may pose systemic risks to the U.S. financial system. The former appropriately calls for the identification of a prudential supervisor for large interconnected firms. Entities that are already subject to a prudential supervisor, such as insured depository institutions and financial holding companies, should retain those supervisory relationships.

The macro-prudential oversight of system-wide risks requires the integration of insights from a number of different regulatory perspectives—banks, securities firms, holding companies, and perhaps others. Only through these differing perspectives can there be a holistic view of developing risks to our system. As a result, for this latter role, the FDIC supports the creation of a Systemic Risk Council to oversee systemic risk issues, develop needed prudential policies and mitigate developing systemic risks. In addition, for systemic entities not already subject to a federal prudential supervisor, this Council should be empowered to require that they submit to such oversight, presumably as a financial holding company under the Federal Reserve, without subjecting them to the activities restrictions applicable to these companies.

Supervisors across the financial system failed to identify the systemic nature of the risks before they were realized as widespread industry losses. The performance of the regulatory system in the current crisis underscores the weakness of monitoring systemic risk through the lens of individual financial institutions and argues for the need to assess emerging risks using a system-wide perspective.

In designing the role of the Council, it will be important to preserve the longstanding principle that bank regulation and supervision are best conducted by independent agencies. Careful attention should be given to the establishment of appropriate safeguards to preserve the independence of financial regulation from political influence. To ensure the independence and authority of the Council, consideration should be given to a configuration that would establish the Chairman of the Council as a Presidential appointee, subject to Senate confirmation. This would provide additional independence

for the Chairman and enable the Chairman to focus full time on attending to the affairs of the Council and supervising Council staff. Other members on the Council could include, among others, the federal financial institution, securities and commodities regulators. In addition, we would suggest that the Council include an odd number of members in order to avoid deadlocks.

The Council should complement existing regulatory authorities by bringing a macro-prudential perspective to regulation and being able to set or harmonize prudential standards to address systemic risk. Drawing on the expertise of the federal regulators, the Council should have broad authority and responsibility for identifying institutions, products, practices, services and markets that create potential systemic risks, implementing actions to address those risks, ensuring effective information flow, and completing analyses and making recommendations. In order to do its job, the Council needs the authority to obtain any information requested from large interconnected entities.

The crisis has clearly revealed that regulatory gaps, or significant differences in regulation across financial services firms, can encourage regulatory arbitrage. Accordingly, a primary responsibility of the Council should be to harmonize prudential regulatory standards for financial institutions, products and practices to assure that market participants cannot arbitrage regulatory standards in ways that pose systemic risk. The Council should evaluate differing capital standards which apply to commercial banks, investment banks, and investment funds to determine the extent to which differing standards circumvent regulatory efforts to contain excess leverage in the system. The Council could also undertake the harmonization of capital and margin requirements applicable to all OTC derivatives activities, and facilitate interagency efforts to encourage greater standardization and transparency of derivatives activities and the migration of these activities onto exchanges or Central Counterparties.

The Council should have rule-writing authority to harmonize capital, leverage and liquidity standards. Primary regulators would be charged with enforcement, but if they fail to act, the Council should have back-up enforcement authority. The standards set by the Council should be designed to provide incentives to reduce or eliminate potential systemic risks created by the size or complexity of individual entities, concentrations of risk or market practices, and other interconnections between entities and markets. Any standards set by the Council should be construed as a minimum floor for regulation that can be exceeded, as appropriate, by the primary prudential regulator.

The Council should have the authority to consult with financial regulators from other countries in developing reporting requirements and in identifying potential systemic risk in the global financial market. The Council also should report to Congress annually about its efforts, identify emerging systemic risk issues and recommend any legislative authority needed to mitigate systemic risk.

Some might fear that a council would have too much vested authority. We disagree. In our view, a deliberative council would provide adequate checks and balances to

address any dissenting view. A Council with regulatory agency participation would ensure that decisions reflect the best interests of public and private stakeholders.

Derivatives Markets

Concentration, complexity and the opacity of the derivatives markets were further sources of risk in the current crisis. While these markets can perform important risk-mitigation functions, they have also proven to be a major source of contagion during the crisis.

Losses on poorly underwritten mortgages products were magnified by trillions of dollars in derivative contracts whose values were derived from the performance of those mortgages. Exposure concentrations among derivatives dealers certainly helped to catalyze systemic breakdown. Derivative exposures can create collateral runs similar in many respects to the depositor runs that occurred during banking panics prior to the establishment of the FDIC.

For instance, when a derivatives dealer's credit quality deteriorates, other market participants can demand collateral to protect their claims. As the situation deteriorates, collateral demands intensify and, at some point, the firm cannot meet additional collateral demands and it collapses. The resulting fire sale of collateral can depress prices, freeze market liquidity, and create risks of collapse for other firms. Derivative counterparties have every interest to demand more collateral and sell it as quickly as possible before market prices decline.

One way to reduce these risks while retaining market discipline is to make derivative counterparties and others that collateralized credit exposures keep some "skin in the game" throughout the cycle. The policy argument for such an approach is even stronger if the firm's failure would expose the taxpayer or a resolution fund to losses. One approach to addressing these risks would be to haircut up to 10 percent of the secured claim for companies with derivatives or other secured claims against the failed firm if the taxpayer or a resolution fund is expected to suffer losses. To prevent market disruptions, Treasury and U.S. government-sponsored debt as collateral would be exempt from the haircut. Such a policy would limit the ability of institutions to fund themselves with potentially risky collateral and ensure that market participants always have an interest in monitoring the financial health of their counterparties. It also would limit the sudden demand for more collateral because the protection could be capped and also help to protect the taxpayer and the resolution fund from losses.

It is important that we improve the resiliency of the financial markets and reduce the likelihood that the failure of any individual financial firm will create a destabilizing "run" in the markets. We should require that all standardized OTC derivatives clear through appropriately designed and central counterparty systems (CCPs) and, where possible, trade on regulated exchanges. To ensure necessary risk management, these CCPs and exchanges must be subject to comprehensive settlement systems supervision and oversight by federal regulators.

We recognize that not all OTC contracts are standardized. In those limited circumstances where *non-standardized* OTC derivatives are necessary, those contracts must be reported to trade repositories and be subject to robust standards for documentation and confirmation of trades, netting, collateral and margin practices, and close-out practices. This is an essential reform to reduce the opacity in the OTC market that contributed to market uncertainty and greatly increased the difficulties of crisis management during this crisis. Today, trade repository information is not yet complete or available to all regulators who need it. For example, the FDIC as deposit insurer and receiver, does not currently have access to end-user data from the CDS trade repository. This gap must be closed.

Improved transparency is vital for a more efficient market and for more effective regulation. The clearance of standardized trades through CCPs and the reporting of information about non-standardized derivatives will greatly improve transparency. To achieve greater transparency it is essential that CCPs and trade repositories be required to make aggregate data on trading volumes and positions available to the public and to make individual counterparty trade and position data available on a confidential basis to federal regulators, including those with responsibilities for market integrity.

Consumer Protection

Many of the current problems affecting the safety and soundness of the financial system were caused by a lack of strong, comprehensive rules against abusive lending practices applying to both banks and non-banks, and lack of a meaningful examination and enforcement presence in the non-bank sector. Products and practices that strip individual and family wealth undermine the foundation of the economy. As the current crisis demonstrates, increasingly complex financial products combined with frequently opaque marketing and disclosure practices result in problems, not just for consumers, but for institutions and investors as well. As the ultimate insurer of over \$6 trillion in deposits, the FDIC has both the responsibility and vital need to ensure that consumer compliance and safety and soundness are appropriately integrated.

The FDIC supports the establishment of a single primary federal consumer-products regulator along the lines of the proposed Consumer Financial Protection Agency. In the FDIC's view, a consumer products regulator should regulate providers of consumer credit, savings, payment and other financial products and services. It should be the sole rule-making authority for consumer financial protection statutes and should have supervisory and enforcement authority over all non-bank providers of consumer credit and back-up supervisory authority over insured-depository institutions.

The agency should eliminate regulatory gaps between insured depository institutions and non-bank providers of financial products and services by establishing strong, consistent consumer protection standards across the board. It should eliminate the potential for regulatory arbitrage that exists because of federal preemption of certain State laws. While Federal preemption is framed as a way to affect cost efficiencies for financial firms, it has now become clear that abrogating sound state laws, particularly

regarding consumer protection, created opportunity for regulatory arbitrage that resulted in a regulatory "race-to-the-bottom." Supporters of preemption have emphasized the cost efficiency argument. However, many commercial firms have been able to survive and profit throughout the years without the benefits of federal preemption. The FDIC's view is that creating a "floor" for consumer protection, based on either appropriate state or federal law, rather than the current system that establishes a ceiling on protections would significantly improve consumer protection.

Also, since most of the problem products and practices that contributed to the current crisis began outside the banking industry, focusing examination and enforcement on the non-bank sector is key to addressing most of the abusive lending practices faced by consumers. A consumer protection regulator should have sole rule-writing authority over consumer financial products and services and the federal banking regulators should be required to examine for and enforce those standards. If the bank regulators are not performing this role properly, the consumer regulator should retain backup examination and enforcement authority to address any situation where it determines that a banking agency is providing insufficient supervision. By freeing the consumer regulator from direct supervision and enforcement of depository institutions, the agency would be able to focus its examination and enforcement resources on the non-bank financial providers that provide financial products and services that have not previously been subject to federal examination and clear supervisory standards.

Improved consumer protections are in everyone's best interest. It is important to understand that many of the current problems affecting the safety and soundness of the financial system were caused by a lack of strong, comprehensive rules against abusive practices in mortgage lending. If HOEPA regulations had been amended in 2001, instead of in 2008, a large number of the toxic mortgage loans could not have been originated and much of the crisis may have been prevented. The FDIC strongly supported the FRB's promulgation of an "ability to repay" standard for high priced loans in 2008, and continues to urge the FRB to apply common sense, "ability to repay" requirements to all mortgages, including interest-only and option-ARM loans.

Conclusion

In my testimony today, I have discussed some of the financial sector developments that fueled a speculative boom in housing that ended badly—for consumers, savers, financial institutions, and our entire economy. As the committee examines the causes of the financial crisis, it should also consider long-standing features of the broader economy that may have contributed to the excesses that led to the crisis.

This crisis represents the culmination of a decades-long process by which our national policies have distorted economic activity away from savings and toward consumption, away from investment in our industrial base and public infrastructure and toward housing, away from the real sectors of our economy and toward the financial sector. No single policy is responsible for these distortions, and no one reform can restore balance to our economy. We need to examine national policies from a long-term view and ask

whether they will create the incentives that will lead to improved and sustainable standards of living for our citizens over time.

For example, federal tax policy has long favored investment in owner-occupied housing and the consumption of housing services. The government-sponsored housing enterprises have also used the implicit backing of the government to lower the cost of mortgage credit and stimulate demand for housing and housing-linked debt. In political terms, these policies have proven to be highly popular. Who will stand up to say they are against homeownership? Yet, we have failed to recognize that there are both opportunity costs and downside risks associated with these policies. Policies that channel capital towards housing necessarily divert capital from other investments, such as plant and equipment, technology, and education—investments that are also necessary for long-term economic growth and improved standards of living.

As the housing boom gathered steam in this decade, there is little doubt that large-scale government housing subsidies only encouraged more residential investment. These policies amplified the boom as well as the resulting bust. In the end, government housing policy failed to deliver on its promise to promote homeownership and long-term prosperity. Where homeownership was once regarded as a tool for building household wealth, it has instead consumed the wealth of many households. At present, foreclosures are nearing 3 million per year and the rise of housing-linked debt has resulted in more than 15 million households owing more than their home is worth.

But this is not the only example of well-intentioned policies that have distorted economic activity in potentially harmful ways. For example, the preferential tax rate on capital gains, which is designed to promote long-term capital investment, has been exploited by private equity and hedge fund managers to reduce the effective tax rate on the outsized incomes earned by the relatively few who work in these industries. And while the establishment of emergency backstops to contain financial crises can help to limit damage to the wider economy in the short-run, without needed reforms these policies will promote financial activity and risk-taking at the expense of other sectors of the economy.

Corporate sector practices also had the effect of distorting of decision-making away from long-term profitability and stability and toward short-term gains with insufficient regard for risk. For example, performance bonuses and equity-based compensation should have aligned the financial interests of shareholders and managers. Instead, we now see—especially in the financial sector—that they frequently had the effect of promoting short-term thinking and excessive risk-taking that bred instability in our financial system. Meaningful reform of these practices will be essential to promote better long-term decision-making in the U.S. corporate sector.

Whatever the reasons, our financial sector has grown disproportionately in relation to the rest of our economy over time. Whereas the financial sector claimed less than 15 percent of total U.S. corporate profits in the 1950s and 1960s, its share grew to 25 percent in the 1990s and 34 percent in the most recent decade through 2008. The financial services industry produces intermediate products that are not directly

consumed—transactions services and products that channel savings into investment capital. While these services are essential to our modern economy, the excesses of the last decade represented a costly diversion of resources from other sectors of the economy. We must avoid policies that encourage such distortions in economic activity. Fixing regulation will only accomplish so much. Longer term, we must develop a more strategic approach that utilizes all available policy tools—fiscal, monetary, and regulatory—to lead us toward a longer-term, more stable, and more widely-shared prosperity.

¹ Under Basel I, residential mortgages held by banks had a regulatory capital requirement of 4 percent whereas if the exposure was held in the form of a GSE mortgage-backed security, the capital requirement was 2 percent.

² New York State expressly exempted CDSs from insurance regulation. AIG owns a small thrift and the EU recognized the Office of Thrift Supervision as AIG's consolidated supervisor.

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