

Memorandum from Edward Pinto¹

To: Staff of FCIC

Subject: Triggers of the Financial Crisis

Date: March 15, 2010, revised and updated

This memorandum is provided in response to the request—made during a discussion with the FCIC staff—that I describe my view of the “triggers” for the financial crisis. I believe that the financial crisis had a single major cause: the accumulation of an unprecedented number of weak mortgages in the U.S. financial system. When these mortgages began to default, they caused the collapse of the worldwide market for mortgage backed securities (MBS), which in turn caused the instability and insolvency of financial institutions that we call the financial crisis. In this context, the “triggers” were those policies and actions that led to the accumulation of so many weak mortgages in our financial system. In this memorandum, I will identify the triggers and show how they eventually caused the collapse of the MBS and asset-backed market. I will also demonstrate how federal policies were directly responsible for mandating a vast increase in homeowner leverage (low or no downpayments), setting extremely high leverage levels for Fannie and Freddie, and requiring flexible underwriting standards throughout virtually entire mortgage finance industry.

I. Definitions:

To better understand how this accumulation of weak mortgages came about, a description of the loan classification system used by Fannie and Freddie (the GSEs) and followed by others is in order. Fannie and Freddie did not classify subprime and Alt-A loans based on objective risk characteristics but on the basis of how the lender or securities issuer classified a loan. Thus a loan was only subprime or Alt-A if a lender or issuer denominated it as such. This subjective classification methodology led to a serious underestimation of the number of high risk loans originated.

For purposes of this memorandum, I have called these self-denominated loans either:

Self-denominated subprime: Loans classified as subprime by the originator or issuer and generally with one or more of the following characteristics:

1. Originated by a lender specializing in subprime business or by subprime divisions of large lenders;
2. Placed in a Subprime Private MBS; or
3. Had a rate of interest considered “high” under the Home Owners Protection Act (HOPA).

¹ The author was SVP of Marketing and Product Management from 1985-1987 and EVP-Chief Credit Officer from 1987-1989 for Fannie Mae and has been a consultant to the financial services industry since 1989.

Self-denominated Alt-A: Loans classified as Alt-A by the originator or issuer and generally with one or more of the following characteristics:

1. Lender delivering loan initially classified it as Alt-A based on documentation or other features; or
2. Placed in an Alt-A Private MBS (Alt-A Private MBS).

The long term misrepresentation by the GSEs as to the risks they were acquiring was finally admitted to by Fannie on November 10, 2008 when it disclosed in its 10-Q:

“We have classified mortgage loans as Alt-A if the lender that delivered the mortgage loans to us had classified the loans as Alt-A based on documentation or other features. We have classified mortgage loans as subprime if the mortgage loan was originated by a lender specializing in the subprime business or by subprime divisions of large lenders. We apply these classification criteria in order to determine our Alt-A and subprime loan exposures; however, we have other loans with some features that are similar to Alt-A and subprime loans that we have not classified as Alt-A or subprime because they do not meet our classification criteria.” P. 182 of Fannie’s Q.3:2008 10-Q

To correct this misleading classification system and adequately account for all high risk subprime and Alt-A loans, two more definitions are needed:

Subprime loans not initially classified as subprime (Subprime by Characteristic): Loans with a FICO <660², the definition used by banking regulators. This definition is also supported by the fact that seventy-nine percent of all loans in subprime private MBS (Subprime Private MBS) had a FICO of equal to or less than 660³. Further the NY Fed database indicates “[T]ypically a FICO score of 660 or above is required to obtain prime financing.”⁴

Alt-A loans not initially classified as Alt-A (Alt-A by Characteristic): Loans with a quality or underwriting deficiency that resulted in higher risk, such as:

1. Non-traditional high LTV lending (Non-traditional HLTV Lending) including 97% LTV and 100% LTV loans and 95% LTV loans with non-traditional underwriting guidelines and debt ratios;
2. Non-traditional ARM terms such as low start rates or negative amortization; or.
3. Low documentation processing applied by one of the GSE’s automated underwriting systems.

² See “Expanded Guidance for Subprime Lending Programs” published in 2001 and found at (<http://www.federalreserve.gov/Boarddocs/SRletters/2001/sr0104a1.pdf>)

³ NY Federal Reserve Bank Subprime database found at http://www.newyorkfed.org/regional/States_Sub.xls /

⁴ NY Federal Reserve Bank http://www.newyorkfed.org/regional/techappendix_spreadsheets.html

Where needed for clarity, one or more of these four definitions will be used. Otherwise, the more general terms of subprime and Alt-A will be used as applicable.

The significance of this representation is of critical importance. If subprime and Alt-A loans had been classified based on objective risk characteristics, rating agencies, investors, and regulators would have been put on notice, since the relative relationship with respect to loan-to-value (LTV) ratios, FICO scores and default propensity was well known⁵.

Chart 1 sets forth these basic relative risk relationships for both FICO score and LTV based on a large sample of loans from the 1990s⁶. A loan with a 680-720 FICO score and an 80% LTV is set as the base case with a relative risk set at 1.0:

It demonstrates that 81-90% LTV loans in each FICO group are approximately two times more risky than 71-80% LTV loans with an equivalent FICO and that 91-95% LTV loans in each FICO group are approximately four times more risky than 71-80% LTV loans with an equivalent FICO. If a FICO below 660 and a high LTV are combined, the risks go to 9-20 times the base case loan.

Chart 1:

	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6
Row 1	FICO Score	<=70% LTV	71-80% LTV	81-90% LTV	91-95% LTV	Relation of Column 5 to Column 3
Row 2	<620	1.0	4.8	11	20	4.2 times
Row 3	620-679	0.5	2.3	5.3	9.4	4.1 times
Row 4	680-720	0.2	1.0	2.3	4.1	4.1 times
Row 5	>720	0.1	0.4	0.9	1.6	4 times

As will be demonstrated later on, one of the key triggers of the Financial Crisis was a policy decision to promote the widespread use of high LTV (highly leveraged) lending in the early 1990s. The risk inherent in high LTV lending was well known. When Fannie decided to proceed with a 97% LTV program in 1994, objections were made – pointing out the poor experience on 95% LTV lending just a dozen years before:

“Some senior executives, including the company's chief credit officer at the time, were opposed to the loans, in large part because a Fannie Mae experiment with 5%-down loans in Texas in the early 1980s was disastrous, with one in four borrowers defaulting.”⁷

⁵ The Federal Reserve Board's Division of Research and Statistics published a comprehensive article in 1996 entitled “Credit Risk, Credit Scoring, and the Performance of Home Mortgages. Performance by LTV band is noted in Table 1 (p. 624) and Chart 3 (p. 646). <http://www.federalreserve.gov/pubs/bulletin/1996/796lead.pdf>

⁶ P. 4 “Deconstructing the Subprime Debacle Using New Indices of Underwriting Quality and Economic Conditions: A First Look”, by Anderson, Capozza, and Van Order, found at <http://www.ufanet.com/DeconstructingSubprimeJuly2008.pdf>

Not surprisingly, FHA had an identical experience in the early-1980s.⁸ As we look at today's experience little has changed. Fannie and FHA are expecting a similar one in four high LTV loans to default. Early in the 1990s Fannie and Freddie greatly increased their acquisitions of 95% LTV loans. In the end, Fannie, Freddie, and the rest of the market went well beyond even risky 95% LTV loans. By the late-1990s, Fannie and Freddie began acquiring significant volumes of 97% LTV loans and by the early 2000s they were acquiring significant volumes of 100% LTV loans. In 1982 and 1992 zero percent of Fannie and Freddie's acquisitions had less than 5% down.

Expanding on the relationships in Chart 1, a common rule of thumb among those in the credit industry sets an 80% LTV loan at a relative default level of 1, a 90% LTV loan at 2 times default level, a 95% LTV loan at 4 times default level, a 97% LTV loan at 6 times default level and a 100% loan at 8 times default level. This is significant because by the mid-00s, most loans with a downpayment of less than 10% had a downpayment of either zero or 3%.

Chart 2 uses Fannie's recent loan performance to illustrate that the problems resulting from the GSEs' acquisition of massive volumes of Subprime by Characteristic (FICO <660) loans and the LTV>90% subset of its Alt-A by Characteristic loans were to be expected. While the risk categories in Chart 2 are not a perfect fit with Chart 1, Fannie's default levels closely track both Chart 1 and the Rule of Thumb. Whether a period of rising prices with a low default rate or declining prices with a high default rate, the relative risk relationships remain unchanged.

Chart 2⁹:

Loan type (not all loan types are listed):	\$ Volume in trillions (% of total – does not add to 100%)	Serious delinquency rate (actual/indexed to traditional loan)	Relationship expected from Chart 1	Relationship using Rule of Thumb
Traditionally underwritten loans with FICO>660 and LTV≤90%	\$1.938 (69%)	1.78%/1.0	Approx. 1	Approx. 1
Loans with LTV >90% (average LTV =97%)	\$0.264 (9.5%)	11.56%/6.49	4.1	6 (for 97% LTV)
Loans with FICO ≥620 & <660	\$0.237 (8.5%)	11.32%/6.36	Approx. 6	Not applicable
Loans with FICO <620	\$0.112 (4%)	16.08%/9.0	Approx. 8	Not applicable

⁷ WSJ, "Why Calls Are Escalating to Clip Fannie Mae's, Freddie Mac's Wings", July 14, 2000, <http://online.wsj.com/article/SB963527598420670221-search.html?KEYWORDS=Freddie+Mac&COLLECTION=wsjie/6month>

⁸ FHA 2009 Actuarial Report

⁹ Data derived from P. 5 of Fannie's Credit Supplement to Q.3:09 10-Q found at http://www.fanniemae.com/ir/pdf/sec/2009/q3credit_summary.pdf;jsessionid=HVERYUUCEDICC3J2FQSI5FGI.

Fannie, Freddie, CRA lenders, along with FHA and other government agencies introduced trillions of dollars of high risk Subprime by Characteristic and Alt-A by Characteristic loans into the housing finance system. Fannie, Freddie, and the Federal Home Loan Banks also acquired about a trillion dollars of Self-denominated Subprime Private MBS and Alt-A Private MBS (out of \$3.35 trillion of such issuances).

II. Background

When the financial crisis hit in full force in 2008, approximately 26.7 million or 49% of the nation's 55 million outstanding single-family first mortgage loans had high risk characteristics, making them far more likely to default. But the effect was more significant than merely heightened risk of default. Each of these high risk characteristics represents a weakening of one or more of the traditional "Three Cs of Mortgage Credit" (collateral, credit, and capacity). Weak lending had a double action effect. First, it fueled both demand and a massive price boom which enabled unprecedented amounts of equity withdrawals which added additional fuel to the continuing price boom. Second, the unprecedented quantity of weak loans made the price correction that much more severe. The fact that, over time, loan underwriting got even weaker near the end of the cycle is entirely normal. It happened at the end of both the Oil Patch boom of the early-1980s and the boom that ended in late-1980s/early-1990s (primarily effecting the Northeast and Southern California).

The presentation made by Professor John Geanakoplos to the Commission on February 26, 2010 highlighted the impact of leverage on the Financial Crisis.¹⁰ The terms leverage and weak lending are related. A loan with a small or no downpayment denotes both high leverage and a weak collateral position. Lower monthly payments achieved with an interest only loan, negative amortization, or a low start rate increases borrowing capacity or leverage and weakens the "Cs" of collateral and capacity. No doc lending increases borrowing capacity or leverage and weakens the "C" of capacity. As will be demonstrated later on, leverage played a central role in the Financial Crisis.

Exhibit 1 describes and enumerates the various types of subprime and Alt-A high risk loans then outstanding. Given the classification system used by the GSEs and others, only about 25% of these high risk loans were classified as subprime with the remainder reported for delinquency tracking purposes as prime, FHA or VA loans. Therefore my goal has been to determine the total amount of "weak loans" outstanding at June 2008. I define a weak loan as one with one or more non-traditional terms as compared to traditionally underwritten conventional loans. In determining which characteristics qualified for subprime and Alt-A status, I looked no further than the traditional indicators of high risk: high LTV/CLTV, low FICO, high debt ratio(s), no doc/low doc, reduced or negative amortization (interest only ARMs, negative amortization pay

¹⁰ John Geanakoplos, "Solving the Present Crisis and Managing the Leverage Cycle", <http://www.fcic.gov/hearings/pdfs/2010-0226-Geanakoplos.pdf>

option ARMs, or 40 year loan term), teaser rate, and expanded provisions for investor loans. These are the same high risk characteristics that have been responsible for a heavy preponderance loan defaults for many decades. Each of these features weakened one or more of the "Three Cs of Mortgage Credit" (collateral, character, and capacity). I use the terms subprime and Alt-A to categorize these weak loans.

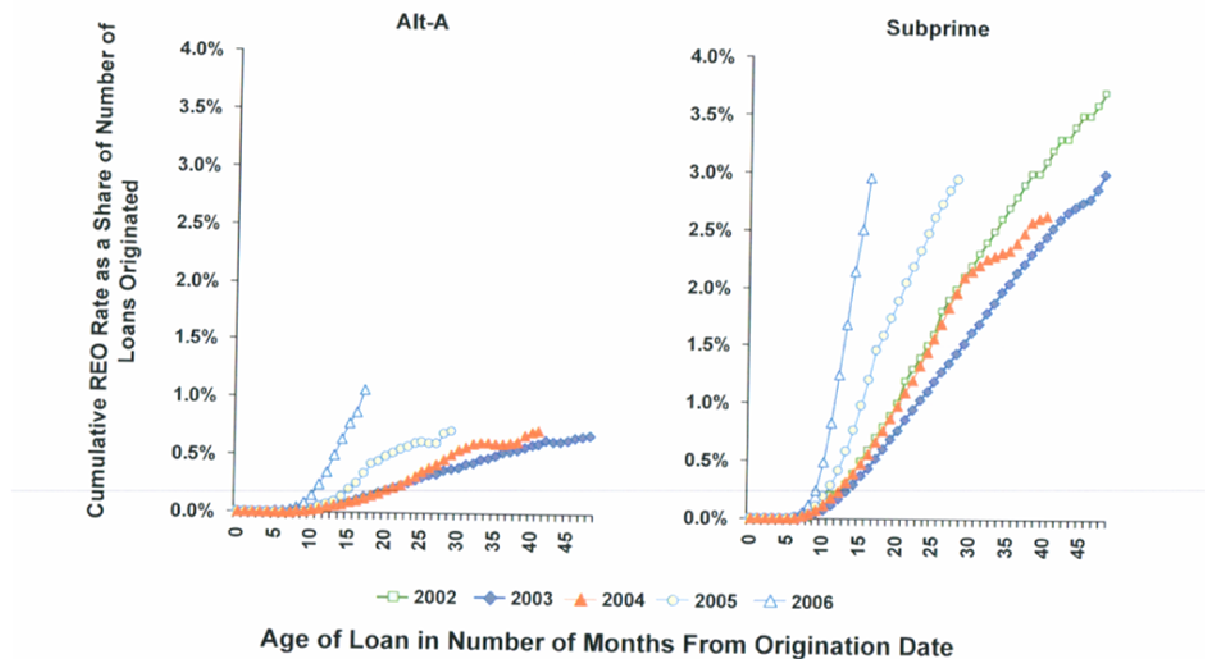
As the market correction began in 2006, the foreclosure rate on both self-denominated subprime and prime loans increased rapidly. The Mortgage Bankers Association (MBA) publishes quarterly delinquency data received from loan servicers accounting for 80%-85% of all outstanding loans. This data is widely available to the market. Since the prime category contained about 14 million (before gross up) default prone subprime and Alt-A loans it actually represents a mixture of normal (low) and high risk loans. Both the MBA's prime and (self-denominated) subprime loan categories started encountering increasing foreclosure starts beginning in Q.3:06 and deteriorated in lockstep over the next six quarters. The unemployment rate in Q.3:06 was at a low 4.5% yet foreclosure rates were far higher than normal at this point in the economic cycle. The market was not performing like one in which subprime and Alt-A loans comprised 20 percent or at most 25 percent of outstanding loans. According to the MBA, its prime and government loan categories accounted for 46% of the 172,000 foreclosure starts in the second quarter of 2006. Self denominated subprime loans accounted for the remaining 54%. By the 4th quarter of 2007, foreclosure start rates had more than doubled; prime and government loans more than kept up, accounting for 48% of 390,000 foreclosure starts. Self denominated subprime loans accounted for the remaining 52%. Note: This is not implying that the foreclosure rate for each grouping was the same, but that the relative rates of increase were the same. Since the combined MBS prime and government groupings contained so many more loans than the MBA subprime grouping and the groups were both increasing at the same percentage rate, the MBS prime and government groupings more than kept up as foreclosure starts increased from the aforementioned 172,000 to 390,000. The fact that this happened indicates that all loans were being impacted starting at the same time. The fact that the MBS prime category contained almost 14 million misclassified default prone subprime and Alt-A loans explains why the MBA prime category accounted for about half of the foreclosure starts.

Of even greater concern was the fact that recent originations were defaulting at much higher rates and much earlier in their life cycle than in the past. Chart 3¹¹ shows the cumulative Real Estate Owned (REO represents real estate owned by way of foreclosure) rates for Self-denominated Alt-A and Subprime Private MBS by vintage year. Compared to earlier vintages, the 2006 vintage of both loan types were exhibiting substantially increased levels of early payment defaults turning into REOs within 10-12 months of origination.

¹¹ Amy Crews Cutts, "Interventions in Mortgage Default: Policies and Practices to Prevent Home Loss and Lower Costs, Freddie Mac Working Paper #08-01, March 2008

Chart 3:

Figure 4C: Cumulative Incidence of REO Among *Non-Prime* First-Lien Mortgage Loans by Origination Year



Source: Author's estimations based on First American LoanPerformance ABS Securities Database. Shaded area represents the estimated range of REO rates for Prime Loans based on REO transition rates from 60-day Delinquencies in Cutts and Green (2005) and the 60-day delinquency rates in Figure 4A.

By late-2006, this troubling information was roiling the private MBS market:

“Delinquency trends and home prices’ show a weakening real estate market, said Scott Eichel, head of credit trading for New York-based Bear Stearns & Co., the biggest underwriter of bonds backed by mortgages. ‘A lot of investors that have concerns about the housing market’ are using the ABX index to speculate on a continued drop, he said.”
 “Housing in U.S. Poised to Worsen, Derivatives Show” Bloomberg.com October 23, 2006¹²

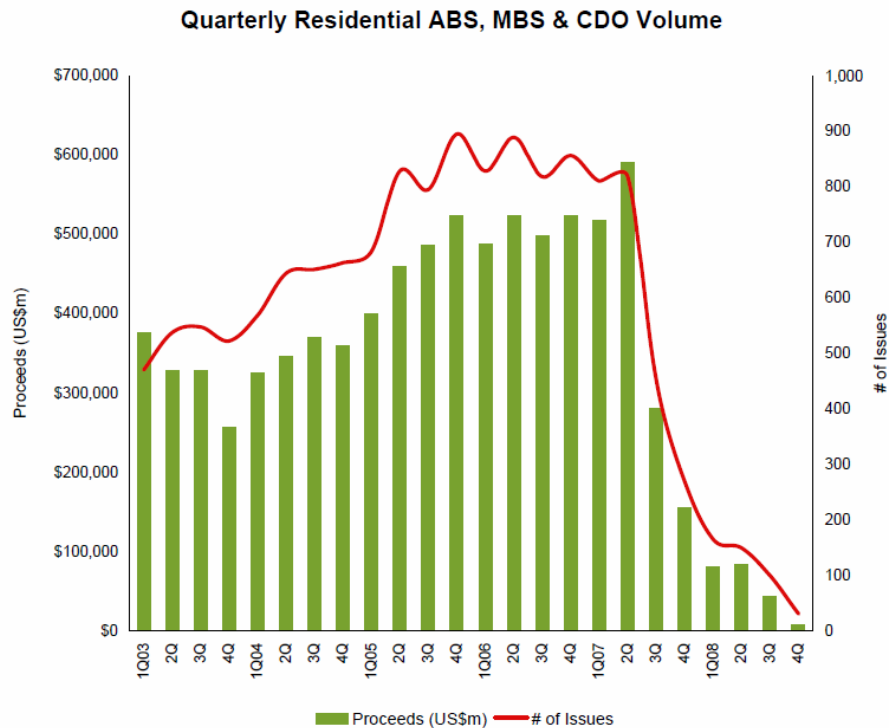
As shown in Chart 4¹³ below, the volume of private MBS declined dramatically during -the 3d quarter of 2007, and eventually the asset-backed market collapsed entirely as investors lost confidence in AAA ratings that were clearly based on invalid data. The collapse of this market

¹² <http://www.bloomberg.com/apps/news?pid=20601103&sid=adbsVAhN68TM&refer=us>

¹³ Source: Thompson Reuters *Debt Capital Markets Review*, Fourth Quarter 2008, available at http://thomsonreuters.com/products_services/financial/league_tables/debt_equity/ (accessed July 30, 2009).

was unprecedented, and caused enormous losses to financial intermediaries that could no longer carry their MBS at the previously assumed value. This raised doubts about the financial condition of many of the world's major financial institutions, initiated an investor panic and caused the rescue of Bear Stearns and the bankruptcy of Lehman Brothers. The world-wide freeze-up in lending between financial institutions that followed the failure of Lehman Brothers in September 2008 is what is generally referred to as the financial crisis.

Chart 4:



This financial crisis has largely been driven by the bursting of unprecedented housing and other real property price bubbles. The housing bubble that came to an end in late 2006 was no 50 or 70 year event. It was an event that was:

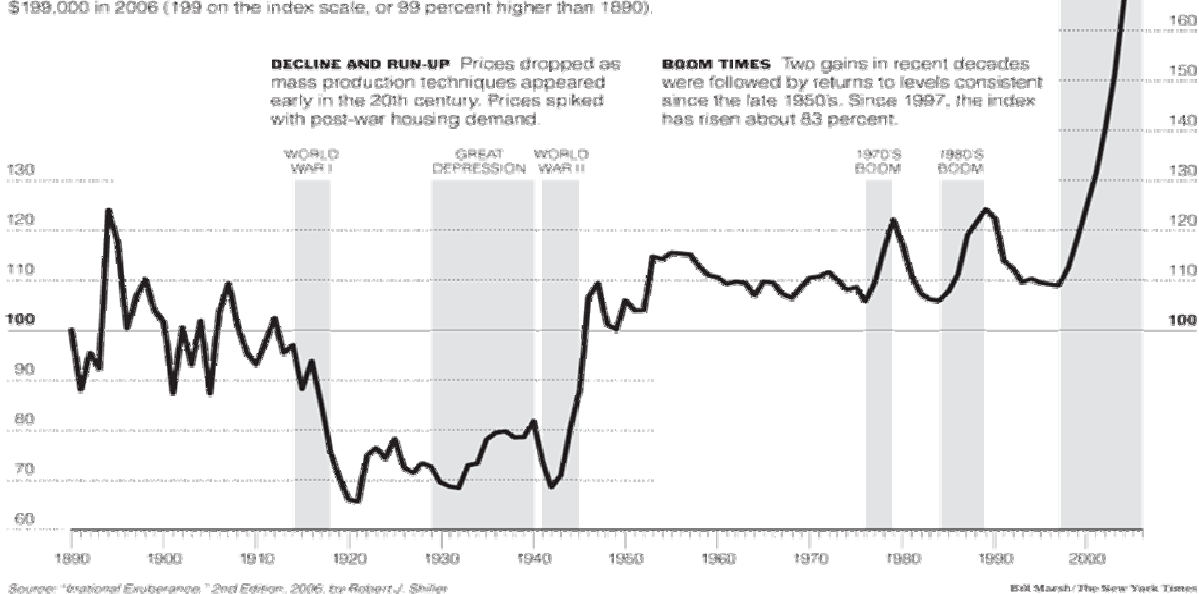
Unprecedented in size: In real dollars, house prices (on a cumulative basis) barely rose from 1890 to 1993—in previous bubbles prices rose no more than 10%-30% percent-- but from 1997 to 2006 house prices increased 80%. Chart 5 was prepared by Robert Shiller and shows quite vividly the unprecedented nature of the most recent housing bubble.

Chart 5:

A History of Home Values

The Yale economist Robert J. Shiller created an index of American housing prices going back to 1890. It is based on sale prices of standard existing houses, not new construction, to track the value of housing as an investment over time. It presents housing values in consistent terms over 116 years, factoring out the effects of inflation.

The 1890 benchmark is 100 on the chart. If a standard house sold in 1890 for \$100,000 (inflation-adjusted to today's dollars), an equivalent standard house would have sold for \$86,000 in 1920 (86 on the index scale) and \$189,000 in 2006 (189 on the index scale, or 89 percent higher than 1890).



Unprecedented in both the number (26.7 million) and percentage of outstanding loans (49%) that were subprime and Alt-A mortgages: Lack of comparable downpayment data before 1980, standardized credit metric data such as FICO score before 1997, and Alt-A data before 1998 makes a direct comparison impossible. However, comparable LTV data is available. In 1980, 15 percent of conventional and FHA home purchase loans had a downpayment of <10%, only 25% of which had a downpayment of <5%. Nineteen-eighty is a relevant year since it was at the end of the housing price run-up leading up to the early 1980s real estate crash in the oil patch states. During 1986-1990 the same metric averaged 16%, again with relatively few loans having a downpayment of <5%. However in 1991, in an effort to protect its charter franchise, Fannie announced its \$10 billion "Opening the Doors to Affordable Housing" initiative. In 1992 Congress passed the 1992 Government Sponsored Enterprises Safety and Soundness Act (GSE Act).¹⁴ By 1993 the same high LTV metric had increased to 27% and FHA was doing many of its loans with downpayments of 3%. Over 1993-2007, this high LTV metric averaged 28%^{15, 16}. By 2007, Fannie's loans with downpayments of less than 10% had an

¹⁴ <http://uscode.house.gov/download/pls/12C46.txt>

¹⁵ Sources: Federal Housing Finance Board and FHA 2009 Actuarial Report

¹⁶ This percentage understates the prevalence of loans with downpayments of <10% since it excludes combination loans with downpayment of less than 10%. A combination loan combines a 1st mortgage (usually with an 80%

average downpayment of only 2.6%¹⁷ meaning a majority had downpayments of 3% or zero. The accumulation of an unprecedented number of low downpayment, subprime and other Alt-A mortgages in the U.S. financial system drove the housing bubble in two ways. First, because they involved sharp reductions in mortgage underwriting standards, they increased the demand for houses by making it possible for a larger percentage of the US population to buy homes. The home ownership rate in the United State had been unchanged for 25 years – now it increased from 64.2 percent in 1994 to 69.2 in 2004 percent. In addition, the fact that many of these mortgages involved no or low downpayments, or low “teaser” interest rates in the first few years, meant that households could buy larger homes with little or no downpayment or at the same monthly payment. This produced a boom in homebuilding and in the price of new homes that was also part of the bubble.

Unprecedented in how it ended: With these high risk loans forming so large a percentage of all mortgages, default rates even before the bubble collapsed were much higher than anyone had ever seen before. As shown in Chart 6, the unemployment rate in 1982 hit 10.8% and the serious delinquency (SD) rate on mortgages peaked at slightly over 2%. This is the rate investors and the rating agencies would have considered normal in the midst of a U.S. recession. However, the recent bubble was different. Notwithstanding record increases in home prices and low unemployment for much of the 1990s and the early part of this decade, the SD rate hovered at or above 2% throughout this period. In June 2007, the unemployment rate was 4.6%, yet the SD rate was already at a post-Great Depression high of 2.51%. Updating with more recent data¹⁸, in September 2009 while the unemployment rate hit 9.8%, the MBA reported that the SD rate was at 8.88% and still climbing. **The relative default risk on high risk loans has turned out to be 6-10 times higher than the risk on the 28 million traditionally underwritten loans with normal downpayments and/or credit risk.**

LTV) and a 2nd mortgage (usually for 5%, 10% or 20% of the purchase price) and results in a loan with either a 5% or 10% downpayment or zero down.

¹⁷ P. 22, Fannie Investor Summary supplement to its 2007 10-K, http://www.fanniemae.com/ir/pdf/sec/2008/2007_10K_investor_summary.pdf;jsessionid=12PT33DA1MCZDJ2FQ SISFGI

¹⁸ More recent data from the MBA National Delinquency Survey, and Bureau of Labor Statistics report of the monthly unemployment rate (<http://data.bls.gov/cgi-bin/surveymost>).

Chart 6:

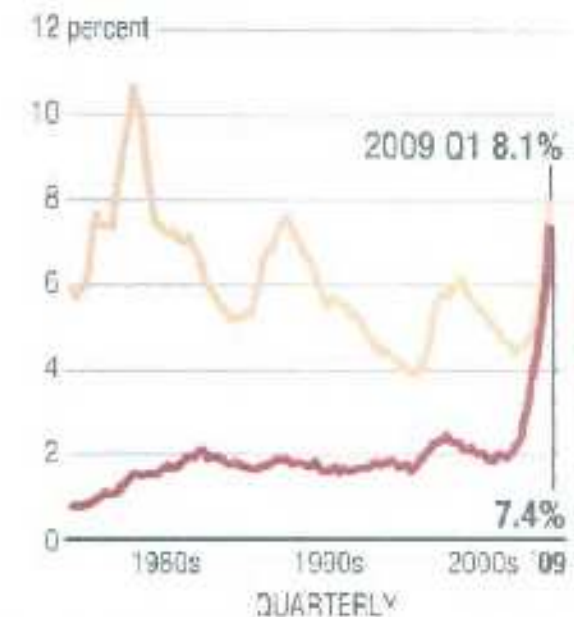
Unemployment rates and foreclosures 1989-2009 (AP)

Unemployment rates and foreclosures 1989-2009 AP

At a loss

The foreclosure rate is running around four times the pace of the 1981-82 recession.

— Unemployment rate
— Foreclosure inventory and homes with 90 or more days delinquency on mortgage



SOURCES: Mortgage Bankers Association, Bureau of Labor Statistics and EconStats
ASSOCIATED PRESS

These high default rates, when they began in late 2006, had a systemic effect on households, financial institutions and the financial markets. It is important to understand, in this connection, that when a mortgage default occurs it affects more than just the defaulting household; unlike a

credit card default or personal bankruptcy, it directly affects the neighborhood and home prices generally. When a single house is foreclosed upon and sold, it has a minor negative impact on housing values and prices in its immediate area; when large numbers of houses are foreclosed and sold, the effect becomes major and systemic—that is, all other homes are adversely affected. Similarly, when large numbers of mortgages held by financial institutions default, they have a systemic effect on the value of these assets for those who hold them.

These facts set the housing bubble that ended in 2006 apart from all others and, as I will show, caused the financial crisis that followed. At this point, however, the important question for the FCIC’s inquiry is: how did it happen that almost half of all outstanding loans were high risk? An important clue is found in what institutions ended up holding most of these bad loans and the securities containing bad loans by the middle of 2008. Over seventy percent of the 26.7 million high risk loans—19.25 million loans--were owned or guaranteed by (a) Fannie Mae and Freddie Mac (11.9 million), (b) the Federal Housing Administration and other federal agencies (4.8 million); (c) FHLB investments in Alt-A and Subprime Private MBS (0.3 million) or (d) banks and other lenders originating loans pursuant to Community Reinvestment Act (CRA) requirements and HUD’s best practices program (2.2 million, net of CRA loans already accounted for in (a) and (b))¹⁹. These numbers suggest that government policies and requirements were the source of the high risk loans, and thus the cause of the financial crisis. In my view, these policies and requirements were the “triggers” that the FCIC staff is looking for. I will discuss this in the next section of this memorandum.

HUD, in its 2010 “Report to Congress on the Root Causes of the Foreclosure Crisis”²⁰ stated “...the sharp rise in mortgage delinquencies and foreclosures is fundamentally the result of rapid growth in loans with a high risk of default—due both to the terms of these loans and loosening underwriting standards.”

How did it happen that loosened underwriting standards became so prevalent? How did it happen that half of all outstanding loans were based on weak lending? As I will demonstrate, during the first half of the 1990s, the federal government adopted three policy initiatives that were intended to supplement the operations of the Federal Housing Administration (FHA), which had until that time been the federal government’s main vehicle for higher risk home lending.

¹⁹ Exhibit 2

²⁰ Found at http://www.huduser.org/portal/publications/hsgfin/foreclosure_09.html

III. The Triggers of the Financial Crisis

A. Low downpayment lending

“Lending institutions, secondary market investors, mortgage insurers, and other members of the partnership should work collaboratively to reduce homebuyer downpayment requirements.” HUD’s 1995 “National Homeownership Strategy”²¹

To begin to understand what caused this boom and resulting bubble to differ from those that came before, one needs to start with a decades’ long trend of reduction in downpayments²². This trend was the result of government policy--undertaken in an effort to increase home ownership by making it easier for Americans to buy homes, and affected how government housing policy was implemented by FHA and eventually followed by the GSEs pursuant to the GSE Act, by banks pursuant to the CRA, and by mortgage bankers pursuant to agreements with HUD .

Congress directly sets FHA’s LTV limit, having started at 80% in 1934 and enacting periodic increases over time. In 1935 the average LTV on an FHA loan was 73% on new homes and 69% on existing homes. The average on a loan made by a savings and loan (S&L) in 1935 was 59%. By 1946 FHA’s LTVs were averaging 84% on new homes and 79% on existing homes, with S&L LTVs at 68%. Thanks to its downpayments averaging 20% and strong house price growth, FHA experienced extremely low default rates in its first 20 years (1934-1953), foreclosing on 8,299 loans out of 2,690,459 insured - a cumulative foreclosure completion rate of 0.3% or an average of 0.015% per year.

As Chart 7 illustrates²³ FHA’s foreclosure rate was already increasing by the early 1950s and would continue to do so for the next 58 years. In 1956, viewing FHA as a success, Congress increased the maximum LTV to 95% and 90% depending on loan type. When this action was taken, FHA’s annual foreclosure start rate had already increased to 0.37%/year. Within 5 years the increase in LTV would result in a tripling of the foreclosure start to 1.00%/year. This caused Time magazine to observe in 1962²⁴:

“Homeowners of a new and unattractive breed are plaguing the Federal Housing Administration these days. Known as “the walkaways,” they are people who find themselves unable to meet their mortgage payments—and to solve the problem simply move out their belongings at night, drop their house key in the mailbox and disappear.”
Time magazine

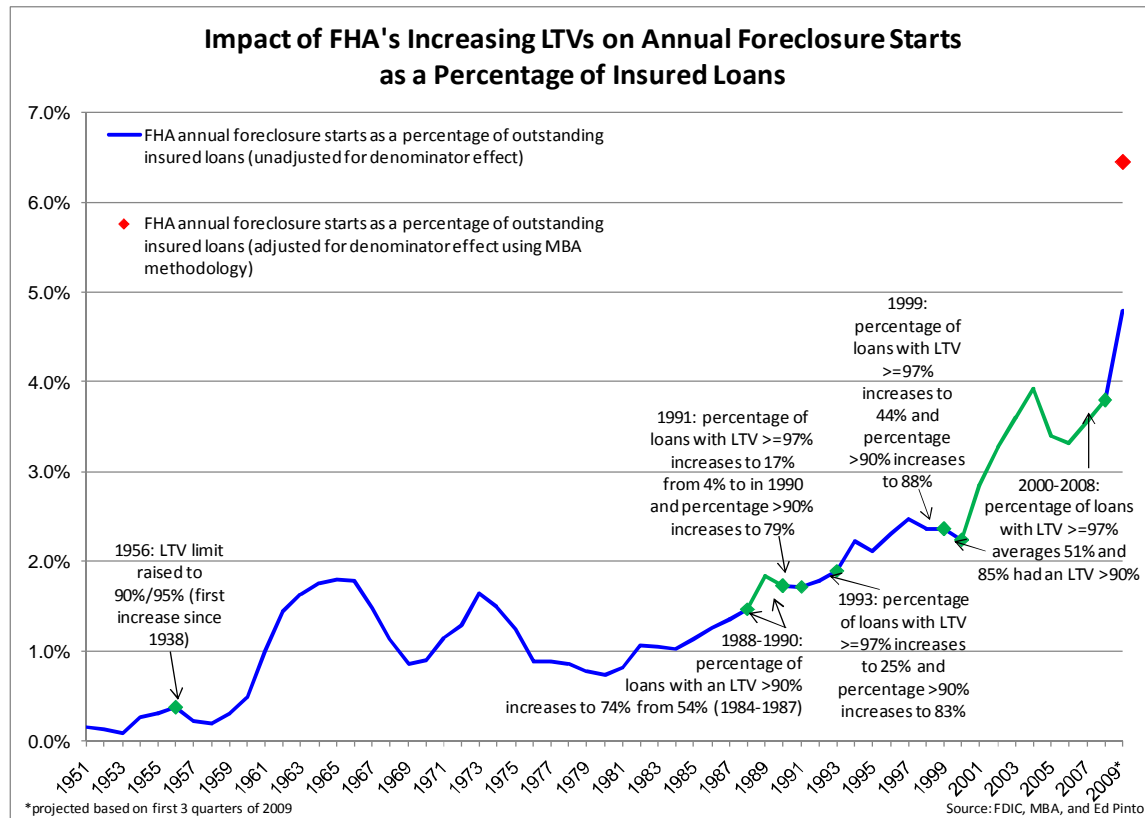
²¹ HUD’s “National Homeownership Strategy – Partners in the American Dream”,
<http://web.archive.org/web/20010106203500/www.huduser.org/publications/affhsg/homeown/chap1.html>

²² The Three Cs of loan underwriting are collateral, character, and capacity. The key attribute for collateral is downpayment or loan-to-value (LTV), for character is credit history, and for capacity are mortgage and total debt ratios. In terms of foreclosure propensity LTV is the most important. For example, a borrower with both poor credit and a low LTV has the ability to avoid foreclosure by selling the house and paying off the lender.

²³ It is difficult to assemble data going back 75 years using the same metric. Chart 1 tracks FHA’s foreclosure start rates which is a step preliminary to the earlier cited FHA loans foreclosed metric.

²⁴ <http://www.time.com/time/magazine/article/0,9171,827500,00.html>

Chart 7



Sources: FDIC, MBA, FHA's 2009 Actuarial Study, Thomas Herzog, and Edward Pinto

Congress also sets FHA's maximum loan term. In 1934 it was 20 years, increasing it in 1938 to 25 years for lower balance loans and to 30 years on all loans in 1948. The impact on equity buildup through scheduled loan amortization is dramatic. In 1935 the average term of an FHA loan was 17 years. By 1946 it was 20 years. By 1980 the 30 year loan had become the standard. Scheduled principal amortization over the first 5 years of a 17 year loan is 17% compared to only 5% with a 30 year loan. This 12% difference is significant since traditionally most loan defaults occur during years 3-7 of a loan's life and represents a further doubling of loan risk.

The trend to smaller and smaller downpayments introduced increasing amounts of risk and as a result the foreclosure rate kept rising. As Chart 7 above illustrates, FHA experienced a 42 fold increase in foreclosure start rate from 1951 to 2009 (2009 is adjusted for FHA's rapid growth in 2008 and 2009).

The systemic impact of defaulting low downpayment and other high risk loans at the neighborhood level has already been noted. Low downpayments, lengthening loan terms, and other credit loosening have a second systemic effect – they push up demand, pushing up house prices at the same time.

This impact was precisely described by Arthur A. May in his 1953 edition of his appraisal handbook entitled “The Valuation of Residential Real Estate”²⁵:

“Assume that we are dealing with two residential properties in two different cities, which we shall call City A and City B. Both of these cities, we shall assume, have the same population history and trend, the same social and economic background, and the same supply and demand ratio. In each city, we have a residential property to appraise. Each of the properties is similarly envired, of the same size, quality, utilitarian capacity, and cost. The only factor of difference in the problem is the local custom concerning terms of sale, which we may assume are 25% down and 5 years to pay the balance in the case of City A, and 10% down and 15 years to pay the balance in City B²⁶. Does it now follow that, because of this difference in terms of sale, the property located in City A may conceivably be valued at \$10,000 and property located in City B at \$12,500? The answer is no; the value is the same in each case, but the price differs because the price as finally fixed in each case stems from the terms agreed upon.”

He concluded that this anomaly may be resolved by acknowledging that while the price paid may be as varied as the variation in loan terms; in making a determination of a property’s value one must, in every case, assume a cash transaction.

A related property valuation principle was enunciated by R.D. Burrows in “McMichael’s Appraising Manual” (1951) when he observed:

“The lender, therefore, frequently adheres to the policy that loans made on a boom market should be for a lesser percentage of current value than the law permits.²⁷”

The significance of these principles to the financial crisis is clear due to the fact that downpayments have declined dramatically and loan terms have lengthened substantially since these observations were made and these changes fueled a housing boom of unprecedented proportions.

How is it that a property appraisal didn’t protect lenders and investors? When FHA was first established, its maximum LTV greatly exceeded those then used on non-governmental loans. FHA attempted to address the impact of its more liberal lending terms by developing a three part property valuation methodology²⁸. In addition to establishing value based on comparable sales, an upper limit of a property’s value for lending purposes was determined by two other valuation methods. The first was based on replacement cost – a property’s value could not exceed its cost of replacement. The second was based on economic or rental value - a property could not exceed

²⁵ May “Valuation of Real Estate”, Prentice-Hall ©1953, pages 18-19.

²⁶ The monthly payment on the \$7500 borrowed for 5 years at a 6% interest rate to finance the home in City A is \$145/month. The monthly payment on the \$11,250 borrowed for 15 years at a 6% interest rate to finance the home in City B is \$94.93.

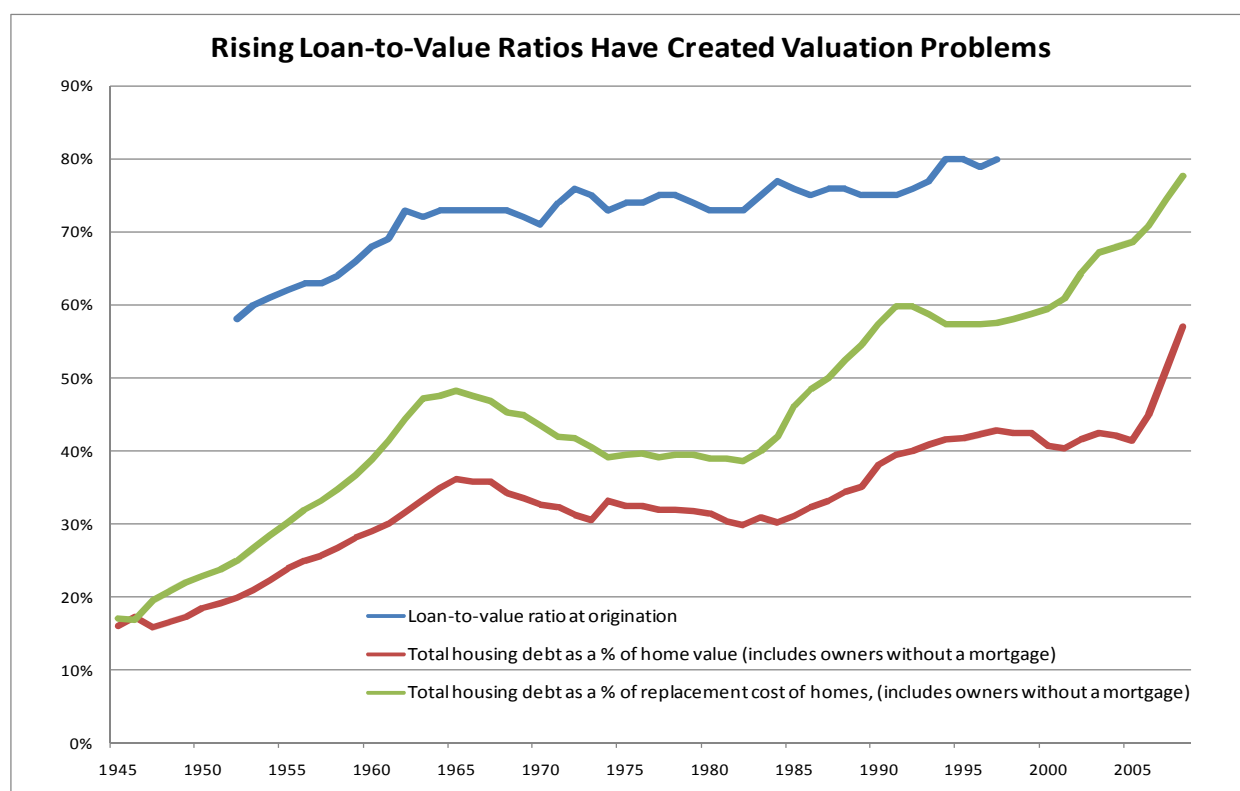
²⁷ “McMichael’s Appraising Manual”, Prentice-Hall ©1951, page 115

²⁸ Chapter 10: The FHA System and Its Effect on Appraising Techniques”, McMichael’s Appraising Manual”, Prentice-Hall ©1951, page 148

its rental value. In this way, a property's value for lending purposes was limited to the least of these three values. Over time, the comparable sales method came to be relied upon more and more by most lenders and investors, particularly the GSEs. This led to the ultimate exclusion of calculating replacement cost and rental value by the mid-1990s.²⁹ The impact from this shift is graphically shown in Charts 8 and 9.

Chart 8 shows that total housing debt both as a percentage of home market value and as a percentage of replacement cost, were about equal in the mid-1940s. As LTVs increased the trend was for the two lines to diverge, reaching new levels beginning in 2001.

Chart 8³⁰:

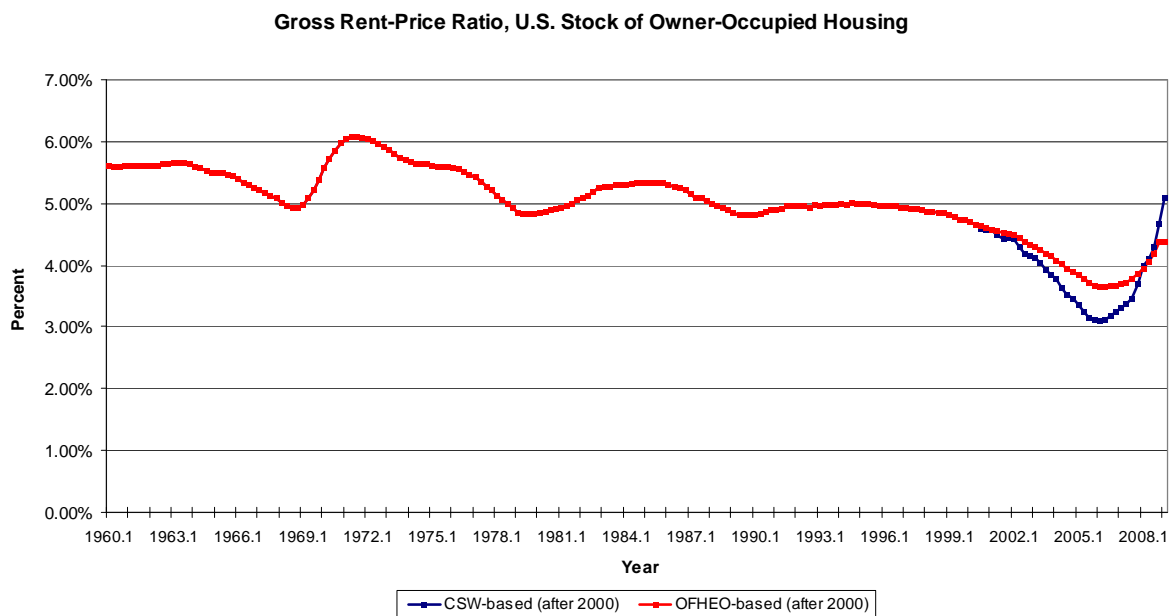


While the Gross Rent-Price Ratio had been slowly trending down over time, in 1999 it broke out of its narrow band and plunged to depths not previously encountered (Chart 9).

²⁹ In mid-1997 Fannie Mae announced several new appraisal forms, which formalized to trend to rely only on the comparable sales approach. "The new Desktop Underwriter Property Inspection Report (Form 2075) requires an "exterior-only" inspection of the house, thereby eliminating the need for a traditional appraisal for certain loans underwritten through the system." Business Wire: "Fannie Mae and Appraisal Vendors Ready to Offer New Streamlined Property Inspection Option Through Desktop Underwriter" September 18, 1997

³⁰ Source: Federal Reserve Flow of Funds and FHFA. After 1997 the increasing use of combination 1st and 2nd loans causes the LTV metric to decline, therefore it no longer accurately describes the effective LTV (including the effect of the 2nd mortgage)..

Chart 9:³¹



As the prevalence of home sales with low downpayments and other loosened loan terms increased through the 1990s, these sales pushed up all house prices in a neighborhood, since these sales become the comparables upon which to value other homes in the neighborhood, regardless of their financing terms. CRA loans were targeted to borrowers and neighborhoods with <80% of median income and the GSEs' AH loans were targeted to borrowers and neighborhoods with <100% of median income, with significant sub-targets also at <80% of median income. As will be demonstrated later on, this stimulation of home prices during the boom and the price declines which follow had an outsized impact on these targeted groups.

The expansion of low downpayment lending can definitively be traced to a series of policy decisions at the federal level. For many years lending for loans with downpayments of 3% or less had been the exclusive province of the FHA and VA, as conventional loans with such downpayments were not introduced until 1994. As recently as 1985-1987 only about 3% of FHA's insured loans had a down payment of 3% or less. In 1986 at most about 5% of all home purchase loans (conventional, FHA, and VA³²) had a down payment of less than 3%. By 1991 FHA, the market leader in loans with downpayments of 3% or less now had about 17% of its insured loans with such a downpayment. But in terms of the overall market, things hadn't changed much – in 1991 at most 6% of all home purchase loans (conventional, FHA, and VA) had a down payment of 3% or less. While FHA was steadily moving its core business to ever

³¹ Davis, Morris A., Lehnert, Andreas, and Robert F. Martin, 2008, "The Rent-Price Ratio for the Aggregate Stock of Owner-Occupied Housing," *Review of Income and Wealth*, vol. 54 (2), p. 279-284

³² There is no year by year LTV data for VA lending. For purposes of these calculations, 100% of VA guaranteed loans are assumed to have a down payment of 3% or less.

smaller downpayments, the private sector had not followed suit. In order to make further “gains” in this area the private sector would need to be drafted to the effort.

This was accomplished as a result of the 1992 Government Sponsored Enterprises Safety and Soundness Act (“GSE Act”). The GSE Act, for the first time, set formal affordable housing goals for Fannie and Freddie. The GSEs were mandated to “lead the market” (a market which included FHA) and HUD was authorized to set annual low and moderate income goals which over time grew from 30% (1993) to 56% (2008).

Congress made clear that wanted it Fannie and Freddie to get much more active in high LTV lending ($\geq 95\%$ LTV). The GSE Act mandated that Fannie and Freddie examine:

“[t]he extent to which the underwriting guidelines prevent or inhibit the purchase or securitization of mortgages for housing located in mixed-use, urban center, and predominantly minority neighborhoods and for housing for low- and moderate-income families;”³³

Congress provided Fannie and Freddie a roadmap for that review by requiring the examination of a number of underwriting standards including:

“the implications of implementing underwriting standards that—

(A) establish a downpayment requirement for mortgagors of 5 percent or less;”³⁴

The significance of this request was two fold. In 1992 a conventional loan with less than 5% down did not exist. Only FHA (and VA) insured such loans. By Congress’ mandate for the GSEs to compete directly with FHA, the development of this highly risky loan product was pre-ordained. By mid-1993 Fannie had developed its Community Home Buyer Program to compete directly with FHA’s core 203(b) insurance program. It had a 3% down payment provided by the borrower and 2% from other sources.³⁵ By 1994 Fannie introduced a 97% LTV with private mortgage insurance, which was implemented over the objection of Fannie’s chief credit officer:

“Some senior executives, including the company's chief credit officer at the time, were opposed to the loans, in large part because a Fannie Mae experiment with 5%-down loans in Texas in the early 1980s was disastrous, with one in four borrowers defaulting.”³⁶

As noted earlier, in 1995 HUD formalized the provision of low downpayment loans as a national policy.

³³ Section 4601 <http://uscode.house.gov/download/pls/12C46.txt>

³⁴ Id.

³⁵ Fannie Mae Credit Policy document, “Summary Comparison of Proposed 3% CHBP Requirements with FHA 203(b) Requirements”, July 22, 1993

³⁶ WSJ, “Why Calls Are Escalating to Clip Fannie Mae's, Freddie Mac's Wings”, July 14, 2000, <http://online.wsj.com/article/SB963527598420670221-search.html?KEYWORDS=Freddie+Mac&COLLECTION=wsjie/6month>

The market response to these policies calling for expanding the 91%-95% and $\geq 96\%$ LTV loan market is clearly set out in Chart 10.³⁷ It shows lending for loans with an LTV $>90\%$ more than tripled from 1991 to 1995:

Chart 10:

LTV Portfolio Composition (Percentage)
(Source: Mortgage Information Corp. – now Loan Performance)

LTV	1991	1992	1993	1994	1995
20-60	24	28	26	17	14
61-70	16	17	17	13	11
71-75	16	16	16	12	11
76-80	21	19	20	20	21
81-90	13	13	13	17	16
91-95	4	4	4	13	16
96-105	4	3	3	6	10

The key points are that loans with downpayments of 3% or less allowed for 33:1 leverage or greater and the advent of these loans was a direct outgrowth of these federal policies.. HUD now had a precise metric upon which to measure the GSEs' progress in leading the market. The GSEs were criticized in the mid-1990s by HUD, the Treasury Department, and the Federal Reserve for acquiring too few low down payment loans. Their under-performance compared to FHA's achievements was also noted.³⁸

Chart 11 details the growth of FHA's and Fannie's $\geq 97\%$ LTV business.³⁹ The $\geq 97\%$ LTV business was always key to helping the GSEs meet their affordable housing goals.⁴⁰ As HUD set higher goals, the portion of the GSEs' business with downpayments of 3% or less increased. Goal increases took effect in 2000, 2005, 2006, and 2007. FHA's own $\geq 97\%$ LTV activity

³⁷ OTS, "Mortgage Market Trends", <http://files.ots.treas.gov/19710.html>

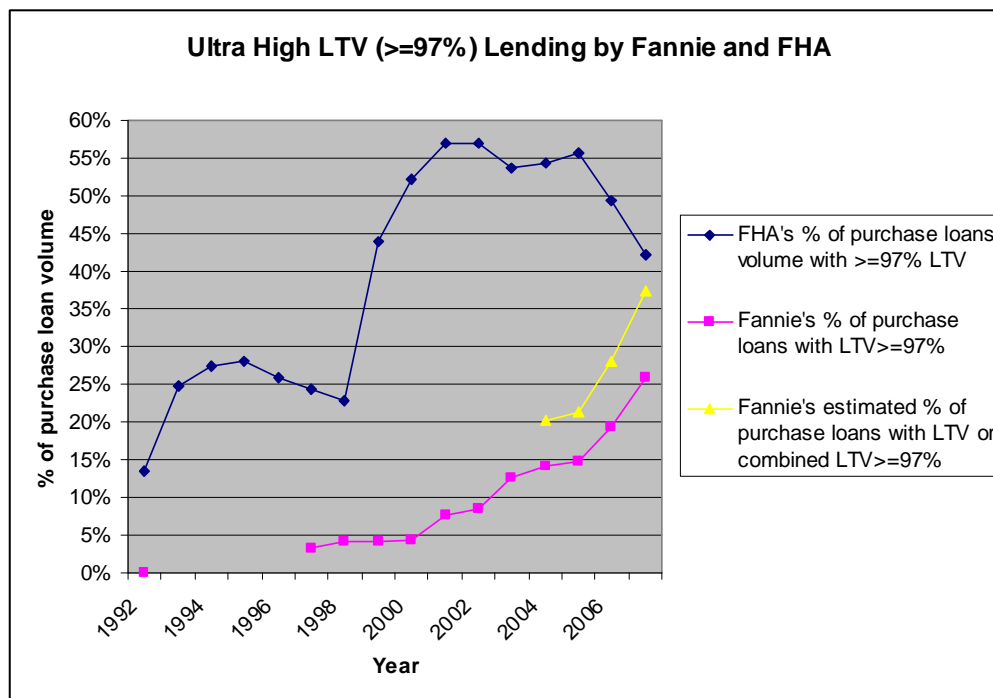
³⁸ HUD, "The GSEs' Funding of Affordable Housing Loans" July 1998

³⁹ In 2000 100% LTV loans with private mortgage insurance became available. In about 2002 the use of combination 1st and 2nd mortgages started taking substantial market share from the private mortgage insurance industry. By about 2004 80% first and 20% second combination loans became prevalent. By 2007 about 2/3 of Fannie and Freddie's business with a down payment of 5% or less had mortgage insurance. The other 1/3 consisted of combination loans.

⁴⁰ For example, in 2007 50.9% of Fannie's Special Affordable Purchase Loan goal was met with loans with LTVs of greater than 95% (effectively equal to or greater than 97%).

about doubled from 1998 to 1999 (increasing from 23% to 44%), putting new pressure on the GSEs. As noted earlier the GSEs' performance was being compared to FHA. This impacted their mandate to lead the market, a mandate enforced by HUD. Fannie's percentage of purchase loan volume with >=97% LTV increased about 8-fold from 1997 to 2007.

Chart 11



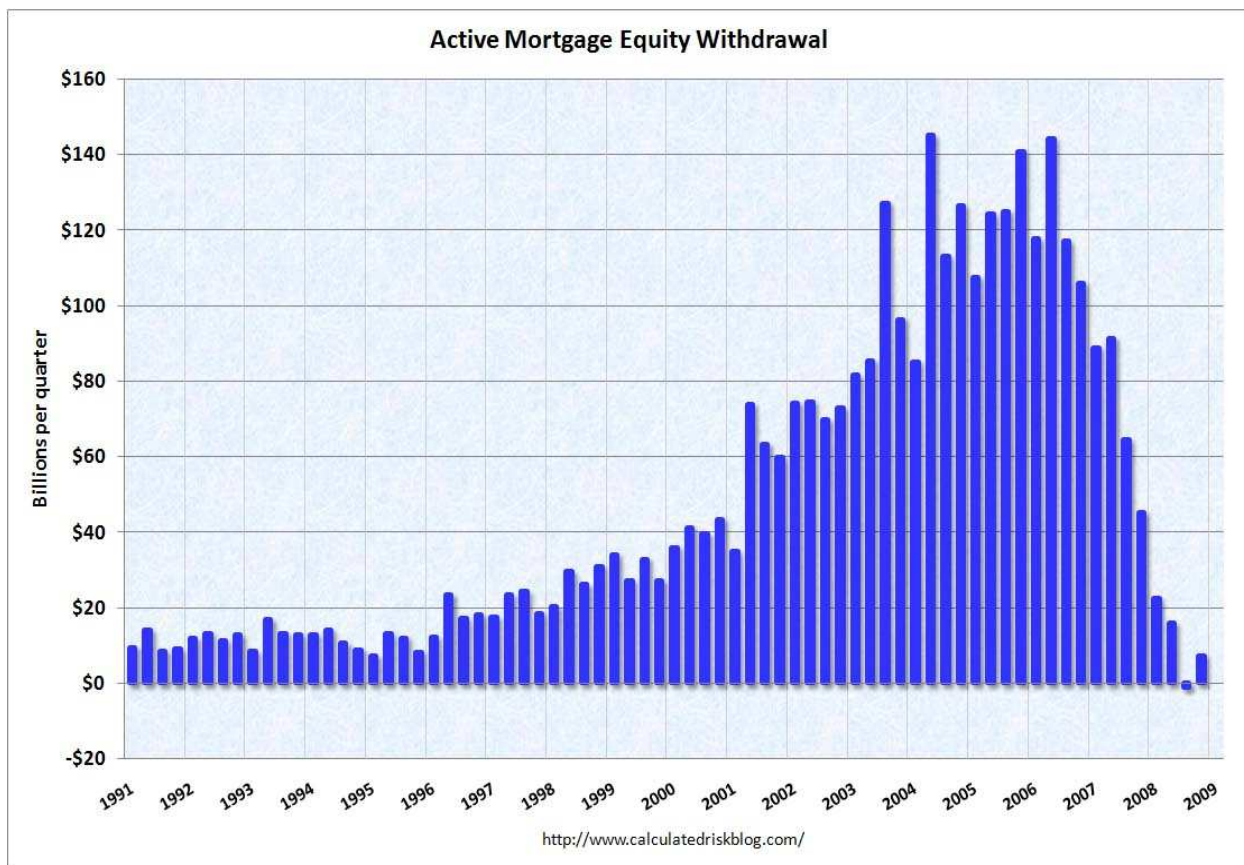
The growth of the GSEs' high LTV (>=97%) lending relative to FHA is nothing short of spectacular. In 1991 FHA did over \$7 billion of purchase loans with down payments of 3% or less to the GSEs' \$0. By 2007 FHA was doing \$14 billion in such loans compared to an estimated \$140 billion by the GSEs (includes both LTVs and combined LTVs >=97%). In 2000 the GSEs started acquiring 0% down loans. By 2007 about half of the \$140 billion in loans acquired by the GSEs with LTVs or combined LTVs of >=97% are estimated to have had down payments of 0%.

The impact of this expansion of highly leveraged lending on other market participants cannot be overestimated. As will be explained later, virtually all market participants were under a mandate to use "flexible underwriting" on their low and moderate income lending. In a market place increasingly dominated by the GSEs, their introduction of 97% LTV lending, followed by 100% LTV lending in 2000 was nothing short of cataclysmic shift. The market response was: if it's OK with Fannie and Freddie (the de facto standards setters) it must be OK for us. Self-denominated subprime lending, which was nicknamed "hard money" lending, due to generally low LTVs, now faced increased competition from FHA and the GSEs. Over time, the growth of lending with downpayments of 3% or less was reinforced by the widespread use of Fannie and

Freddie’s automated underwriting systems. Even those loans not sold to the GSEs were put through one or both systems. As the GSEs rolled out more flexible underwriting parameters in their systems, lenders were able to adjust their own standards on business not sold to the GSEs. As a result, the percentage of conventional home purchase loans with a downpayment of <10% increased from 9% in 1991 to 25% in 1994 and averaged about 25% through 2000 and was about 30% for 2001-2007 (includes combined LTV loans).⁴¹

However another problem loomed. As a result of lower downpayments and easier loan terms, housing demand rose. This new demand drove prices higher and enabled move-up buyers to purchase larger houses with the proceeds they realized from the sale of their homes and this stimulated more demand and higher prices. A new problem – “unearned equity” gained from inflating house prices – was added to the lack of skin in the game on the part of home purchasers. Chart 12⁴² illustrates how this “unearned equity” eventually turned homes into ATMs, spurring over \$2.5 trillion in home equity withdrawals from 2001 to 2007. This equity withdrawal was accomplished using both cash out refinance and home equity loans.

Chart 12:

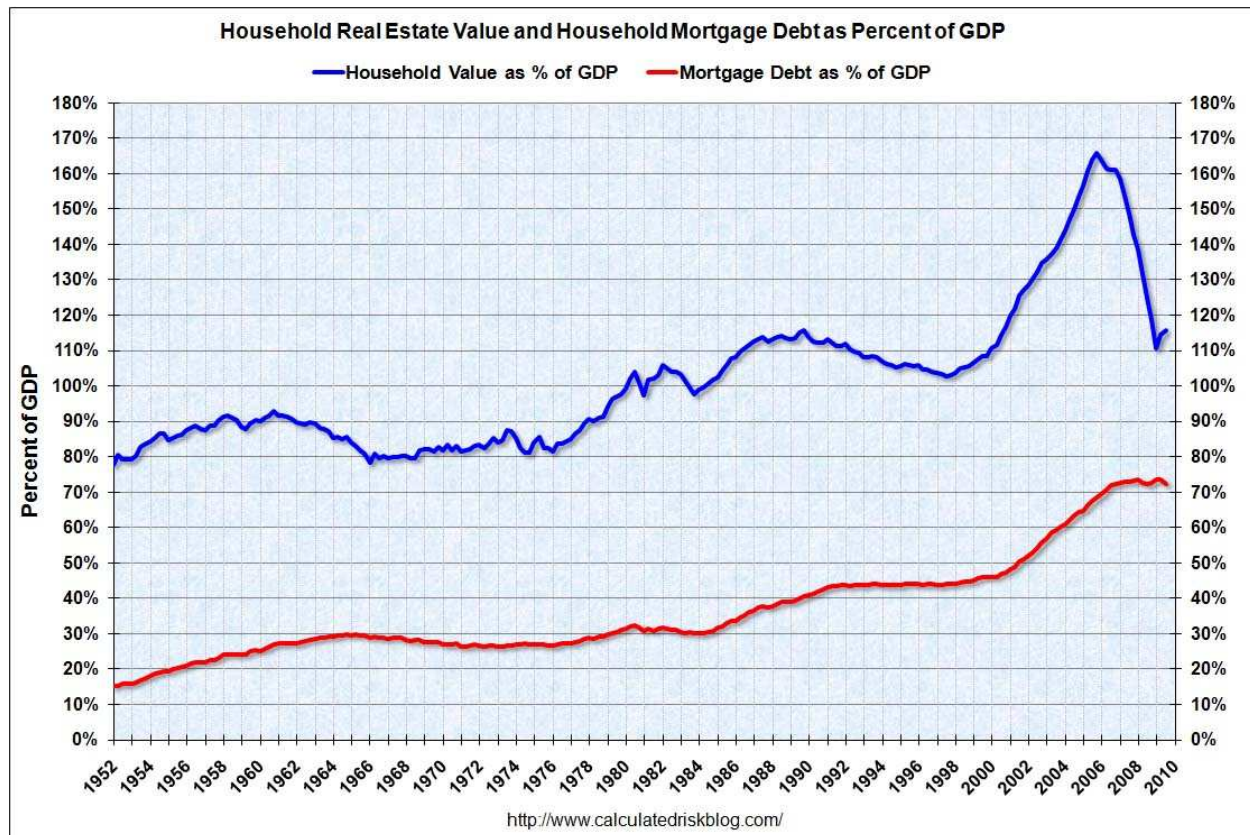


⁴¹ FHFA, OFHEO, Fannie, Freddie, and Edward Pinto

⁴² Source: Calculated Risk (<http://www.calculatedriskblog.com/2007/05/measuring-equity-extraction.html>)

The impact of easy lending standards on debt levels was substantial. As illustrated by Chart 13, both home value and mortgage debt as a percentage of GDP more than doubled from the mid-1970s to 2006.

Chart 13:

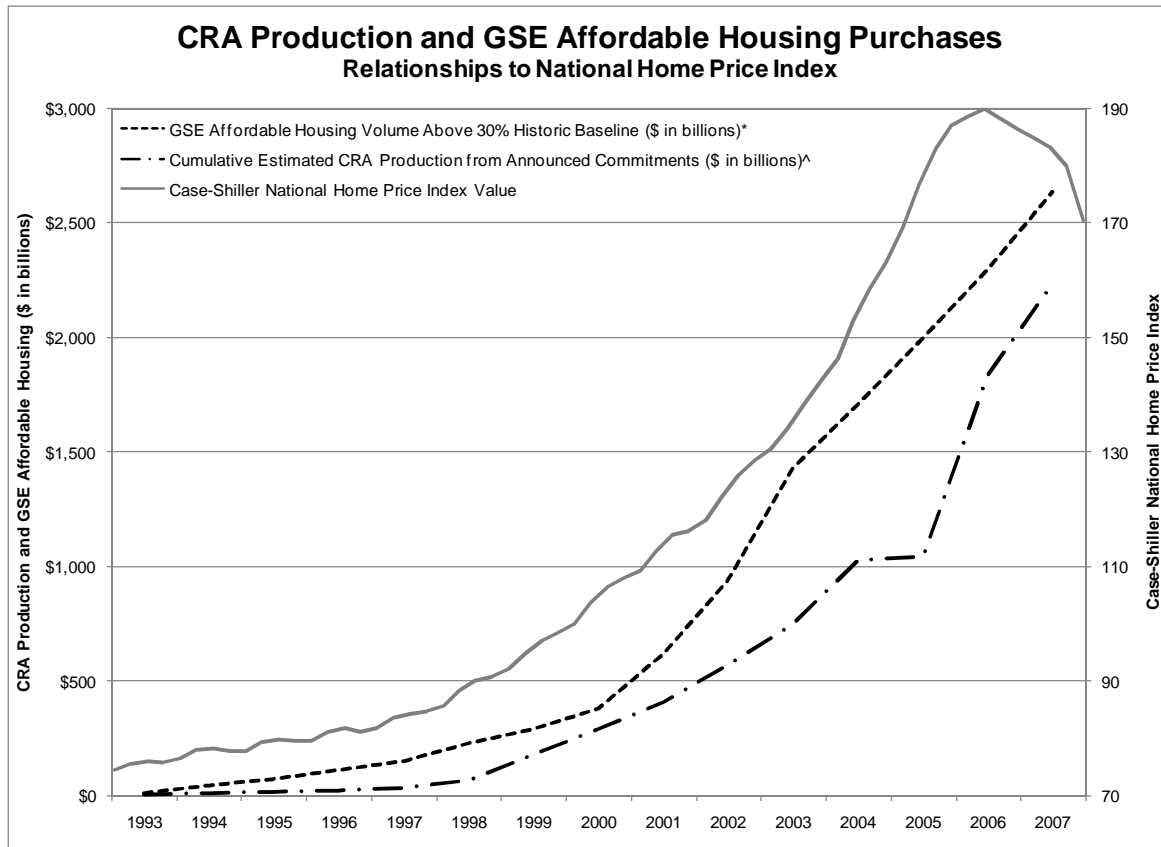


The excessive use of low downpayment and other loans with loosened lending standards created a non-virtuous cycle. To help keep the main actors straight over time, as a general matter FHA was the main provider of this type of lending through the 1970s and again in the late-80s to early-90s. Beginning in the mid-1990s through 2003 Fannie, Freddie, CRA loans and to a lesser extent FHA were responsible for most of this type of lending. After 2003 through early 2007 Self-denominated Subprime (net of Fannie and Freddie acquisitions) and Self-denominated Alt-A Private MBS (net of Fannie and Freddie acquisitions) became major competition to loosened Fannie, Freddie, and CRA lending (see Subsection F below).

As weak lending increased demand, house prices increased. As house prices increased, an affordability gap was created. An affordability gap occurs when house prices are increasing faster than incomes. In order to keep loan volumes up, greater volumes of loosened lending (such as smaller downpayments, lower qualifying rates, interest rate buy downs, greater reliance on ARMs, interest only loans or 40-year loan term, or negative amortization) is called upon to narrow this gap. And the cycle gets repeated again and again.

This non-virtuous cycle, fueled primarily by trillions of dollars of CRA and GSE affordable housing acquisitions caused the house price boom as shown on Chart 14.

Chart 14:



It is important to note that the boom started in the 1990s. In 2001 Josh Rosner⁴³ observed:

“[i]t appears a large portion of the housing sector’s growth in the 1990’s came from the easing of the credit underwriting process. Such easing includes:

- The drastic reduction in minimum down payment levels from 20% to 0%
- A focused effort to target the “low income” borrower
- The reduction in private mortgage insurance on high loan to value mortgages
- The increasing use of software to streamline the origination process and modify/recast delinquent loans in order to keep them classified as “current”

⁴³ Josh Rosner, “Housing in the New Millennium: A Home Without Equity is Just a Rental With Debt”, June, 2001 found at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1162456

- Changes in the appraisal process which led to widespread over-appraisal/over-valuation problems

Rosner warned in the same article: “The virtuous cycle of increasing homeownership due to greater leverage has the potential to become a vicious cycle of lower home prices due to an accelerating rate of foreclosures.”⁴⁴

Also in 2001, James Grant observed:⁴⁵

“What could explain a bull market⁴⁶ in a non-earning asset in a non-inflationary era? Ample credit is the first answer.... In the first quarter, Fannie Mae, Freddie Mac and the Federal Home Loan Banks together expanded their book by \$84.7 billion, or 12.7% annualized.”

At about the same time Rosner and Grant were observing a bull market based on easy credit, a very different message came from Fannie’s vice chair, Jamie Gorelick:

“As it has for the past five decades the trend of increasing debt-to-value ratios will continue in the current decade. Back in the ‘50s, the average ratio was just 20%—today it is 47%.⁴⁷ Where might it go? ... [a]s more lenders bring more low down-payment mortgages to the market, that will also boost the debt-to-value-ratio.⁴⁸

As a result of this “the trend of increasing debt-to-value ratios”, a housing boom continued to develop and gather speed (Chart 15):⁴⁹

⁴⁴ Id.

⁴⁵ James Grant, “Mr. Market Miscalculates”

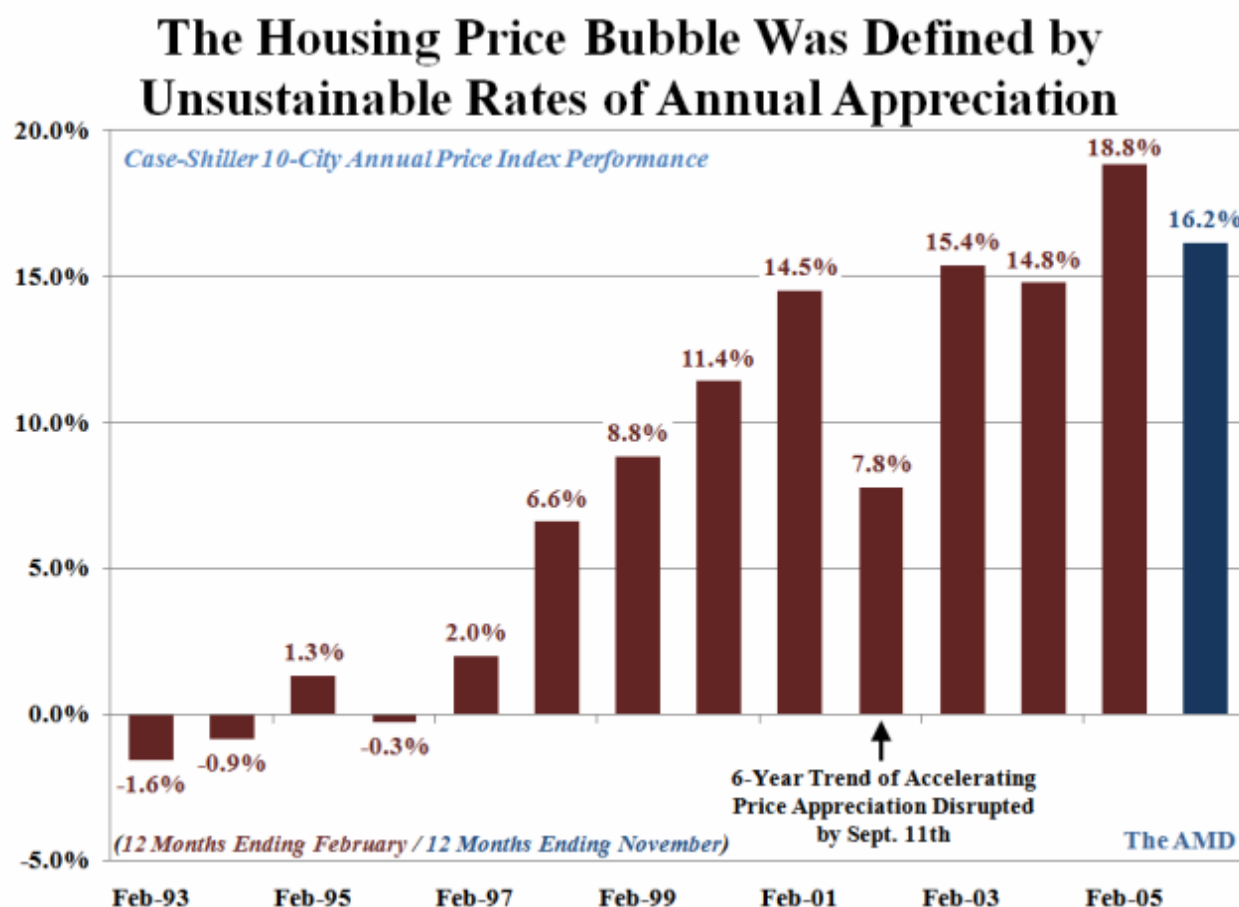
⁴⁶ Id. Grant had earlier made note of the fact that house prices had just increased by 8.8% over the year ending Q.1:01

⁴⁷ This percentage includes the approximately 30% of homeowners without a mortgage. Netting this group out, increases the debt-to-value (LTV) ratio to about 62%. After the market collapse the average LTV of homeowners with a mortgage(s) would reach about 90% in 2009.

⁴⁸ James Grant, “Mr. Market Miscalculates”, Gorelick’s remarks made in November 2001 at a convention of community bankers.

⁴⁹ <http://theaffordablemortgagedepression.com/2010/03/11/origin-of-the-housing-bubble-the-national-homeownership-strategy.aspx>

Chart 15:

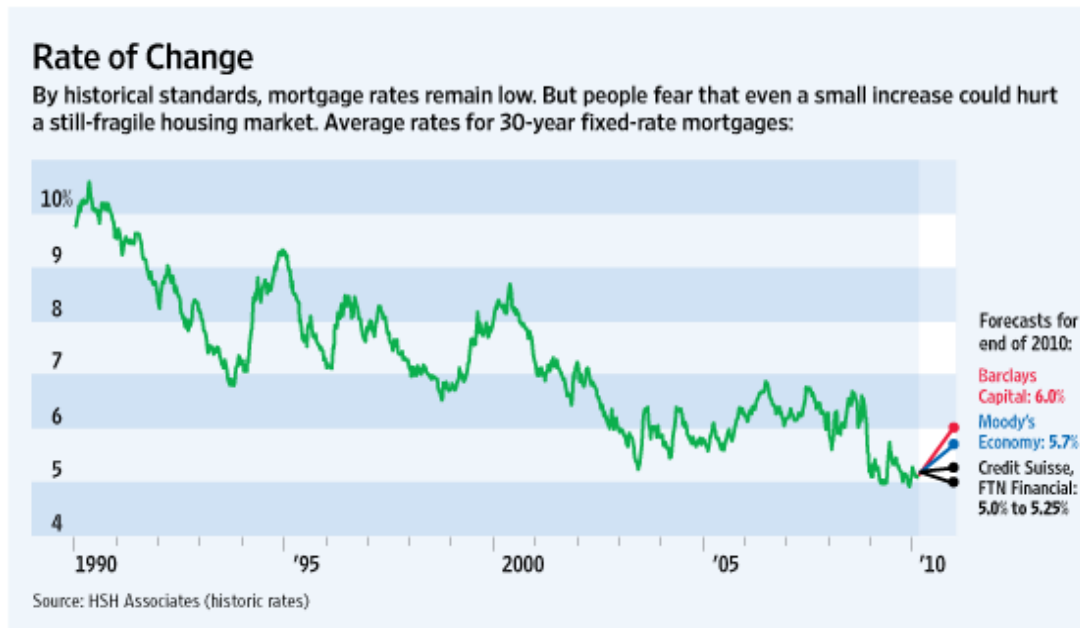


While Congress and federal agencies had no way of anticipating this, the surge in leverage and flexible underwriting standards with respect to affordable housing lending coincided with a dramatic decline in mortgage rates, as shown on Chart 16. While this interest rate decline would not have been sufficient to create the mortgage crisis⁵⁰, its erratic nature drove a series of refinance booms during which the fixed rate mortgage were the product of choice. This played to the GSEs' strong suit – fixed loans, which helped speed up their market share growth. This helped drive an increase in the volume of flexibly underwritten loans, as the affordable housing goals kept increasing. As Chart 16 shows, during the period 1991-2007 there were 3 periods of rate decline where rates fell below previous highs – early-1991 to early 1994, 1997-1998, and early 2001-early 2004. These periods were marked by sustained refinance booms. The GSEs' share of outstanding total residential mortgage debt increased by 6% over 1991-1993, 2.2% over 1997-1998, and 5.7% over 2001-2003. The gains averaged 1.7% per year during these 9 years compared 0.9% for the 5 remaining years from 1991-2003. Whereas the GSEs started 1991 with

⁵⁰ Cleveland Federal Reserve Bank, "Why Didn't Canada's Housing Market Go Bust?" <http://www.clevelandfed.org/research/commentary/2009/0909.pdf>

28.2% share, they ended 2003 with a 46.8%.⁵¹ A recent Cleveland Fed study concluded that their “Canada and U.S. housing market comparison suggests that relaxed lending standards played a crucial role in the U.S. housing bust.”⁵²

Chart 16:



Source: Wall Street Journal

The demand stimulation for the first two-thirds of this boom came almost entirely from CRA loans originated primarily by the big banks and affordable housing (AH) lending acquired by the GSEs, with very little being due to Self-denominated Subprime. This is demonstrated by Chart 17 which tracks the following categories of lending over the period 1993-2007⁵³:

1. The cumulative dollar volume of single-family CRA lending resulting from announced commitments (there is no base adjustment since CRA commitment volume before 1993 was minimal);
2. The cumulative increase in the GSEs' dollar volume of single-family affordable housing lending in excess of 30% of their acquisitions per year (percentage applicable to 1993); and
3. The cumulative dollar volume of Self-denominated Subprime loans in excess of its 1992 baseline percentage of 9% of total originations.

Relative CRA loan volume from announced commitments increased by over \$730 billion, relative GSE affordable housing volume increased by over \$1.4 trillion, and relative Self-

⁵¹ Source FHFA, <http://www.fhfa.gov/webfiles/14597/SFMOutstanding1990to2009Q1.xls>

⁵² Id.

⁵³ Sources: 1. National Community Reinvestment Coalition and annual reports of select large banks along with analysis by Edward Pinto; 2. FHFA and HUD; and 3. Inside Mortgage Finance.

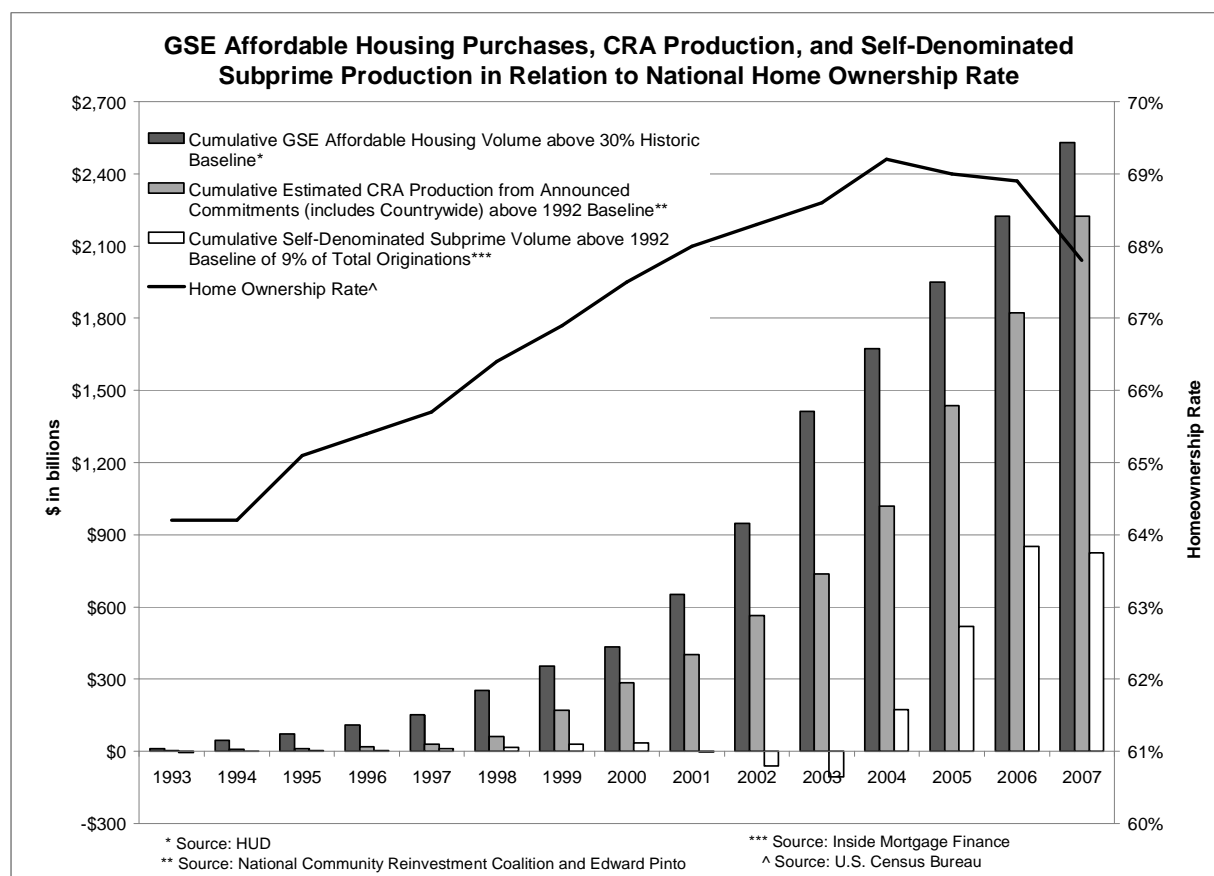
denominated Subprime loan volume declined by more than \$100 billion, Self-denominated Subprime loan volume declined because its annual volume failed to keep pace with its 9% share in 1992. In 2003 Self-denominated Subprime loan share declined to 7.9%. Note: while there is some overlap among the three categories (mostly between #1 and 2 and less among #1, #2, and #3 it does not change the point of Chart 17).

Chart 17 also confirms that it was CRA and GSE affordable housing lending, not Self-denominated Subprime loans, that drove the homeownership to unsustainable levels, a conclusion echoed by a former Office of Thrift Supervision Director:

"Our record homeownership rate [increasing from 64.2% in 1994 to 68% in 2001], I'm convinced, would not have been reached without CRA [Community Reinvestment Act] and its close relative, the Fannie/Freddie requirements." - Ellen Seidman, Office of Thrift Supervision Director, before the Greenlining Institute on 10.2.01

A comparison of Charts 17 and 14 reveals a double bubble – Chart 17 shows a bubble in home ownership rate, which burst after 2004 and Chart 14 a bubble in housing prices, which burst in mid-2006. Note that the home ownership rate starts increasing in 1995 (Chart 17) and house price increase start accelerating in 1997 (Chart 14).

Chart 17



As noted earlier, loosened lending's dual systemic risk is to drive prices higher in good times and lower in bad. This effect has been well documented for both this housing boom and its aftermath. The Case-Shiller Home Price Index⁵⁴ tracks home price appreciation by low, medium and high price tiers for 17 cities, however only 10 have data going back to 1987. Chart 18 presents the data for these 10 cities, which demonstrates that during the 1993-2006 period of high levels of high risk lending prices both increased rapidly, particularly for the low price tier, and had much more severe declines when the boom ended. The Low Price Tier's entire extra price gain of 15.02% over 13+ years compared to the High Price Tier was illusory. This amount and much more was lost as the Low Price Tier experienced price decline that was 17.7% larger than the High Price Tier Group. The losses are much more since the 17.7% decline is off the peak price, while the extra 15.02% gain is on the much lower starting price point. As noted earlier, this is because the price stimulation applied to the lower tier spreads to the "move-up" buyers.

Chart 18:

City	Low/High Price Tier % change 1987-1992	Low/High Price Tier % change 1993-2003	Low/High Price Tier % change 2004-peak	Low/High Price Tier % change peak – trough
Boston	-11%/-8%	+66%/+56%	+17%/+13%	-31%/-15%
Cleveland	+32%/+27%	+47%/+31%	+10%/6%	-37%/-11%
Denver	+12%/+12%	+67%/+50%	+3%/+13%	-27%/-14%
LA	+36%/+28%	+51%/+50%	+43%/+31%	-56%/-31%
Miami	+15%/+13%	+58%/+48%	+47%/38%	-61%/-45%
NYC commuter	+9%/+0%	+57%/+51%	+30%/+20%	-25%/-17%
Portland, OR	+41%/+34%	+60%/+42%	+36%/+33%	-19%/-23%
San Francisco	+34%/+30%	+60%/+53%	+33%/+26%	-62%/-30%
Tampa	+6+/-4%	+56%/+41%	+43%/+35%	-52%/-38%
Washington DC	+31%/+26%	+47%/+45%	+40%/+38%	-46%/-25%
Average price gain/loss for Low and High	+3.42%/year +2.77%/year	+5.17%/year +4.25%/year	+10.98%/year +9.2%/year	Not applicable
Annual difference and cumulative difference between Low and High	+0.65%/year +3.3% (cumul.)	+0.92% +10.12%	+1.78% +4.90%	Not applicable
Peak to trough decline	Not applicable	Not applicable	Not applicable	-41.6%/-23.9%

FHFA, the GSEs' regulator, published research that demonstrates similar results when comparing low and high FICO scores, high and low LTVs, and high and low debt-to-income ratios on home loans in California (the subject of the study)⁵⁵.

⁵⁴ <http://www.standardandpoors.com/indices/sp-case-shiller-home-price-indices/en/us/?indexId=spusa-cashpidff--p-us--->

⁵⁵ <http://www.fhfa.gov/webfiles/1165/pricesandfinancing.pdf>

Homeownership had traditionally been based on saving for a downpayment and building equity with scheduled principal amortization. Congress' use first of FHA, then Fannie, Freddie and CRA to promote low downpayment lending short circuited both portions of this saving process as it reduced downpayments and extended loan terms in an effort to stimulate homeownership. Each new change was viewed as a costless way to make home buying more affordable. What government encouragement of excessive amounts of high LTV lending missed was that having "skin in the game", by saving a significant downpayment and paying down one's mortgage through amortization, was an integral part of becoming and remaining a homeowner. Stated in financial terms, this policy encouraged borrowers to become overleveraged.

B. Congress and the executive branch's push for Fannie, Freddie, banks, and mortgage bankers to implement loosened lending practices

HUD, in its 2010 "Report to Congress on the Root Causes of the Foreclosure Crisis" stated "...the sharp rise in mortgage delinquencies and foreclosures is fundamentally the result of rapid growth in loans with a high risk of default—due both to the terms of these loans and loosening underwriting standards."

How did it happen that loosened underwriting standards became so prevalent? How did it happen that half of all outstanding loans were based on weak lending?

In the first half of the 1990s, the federal government adopted three policy initiatives that were intended to supplement the operations of the Federal Housing Administration (FHA), which had until that time been the federal government's main vehicle for high risk and highly leveraged home lending:

1. In 1992, Congress passed the previously noted GSE Act which imposed affordable housing goals on Fannie and Freddie. As a result they became competitors of FHA and a source of demand for CRA loans;
2. In 1994, HUD began to enter into "Fair Lending Best Practices Agreements" with mortgage bankers;⁵⁶ and
3. In 1995, the Community Reinvestment Act (CRA), which had been passed in 1977 but had had little impact on bank lending until 1995, was given new life with more stringent regulations applicable to all insured banks, in particular a change from a qualitative standard to a quantitative one.

⁵⁶ "Since 1994, HUD has signed Fair Lending Best Practices (FLBP) Agreements with lenders across the nation that are individually tailored to public-private partnerships that are considered on the leading edge. The Agreements not only offer an opportunity to increase low-income and minority lending but they incorporate fair housing and equal opportunity principles into mortgage lending standards. These banks and mortgage lenders, as represented by Countrywide Home Loans, Inc., serve as industry leaders in their communities by demonstrating a commitment to affirmatively further fair lending." Found at: <http://www.hud.gov/local/hi/working/nlwfa12001.cfm>

Each either explicitly (FHA, CRA, and HUD) or implicitly (Fannie and Freddie) required the use of flexible lending standards, including a much expanded use of low down payment or high leverage lending. All four programs targeted low and moderate income families.

In 1995 HUD's National Homeownership Strategy announced an overarching goal –increasing the homeownership rate for low and moderate income families through the use of flexible and innovative underwriting standards. This policy objective was applicable to virtually the entire mortgage market - primary and secondary, government and conventional. It was self-described as “an unprecedented public-private partnership to increase homeownership to a record-high level over the next 6 years”.⁵⁷

It relied on increased borrower leverage (lower down payments, lower monthly payments, and flexible underwriting) and increased investor leverage (the GSE Act set Fannie and Freddie's leverage at 40:1 for their on balance sheet portfolios and 222:1 for their off balance sheet mortgage guarantees (MBS). Risked based capital requirements also contained a clear leverage bias in favor of single-family residential lending.

It was a direct assault on 3 Cs of lending - collateral, credit, and capacity. Low downpayment loans (high leverage loans) were at the heart of flexible lending. HUD's “National Homeownership Strategy – Partners in the American Dream” contained this “action item” on “Home Mortgage Loan-to-Value Flexibility”:⁵⁸

“Lending institutions, secondary market investors, mortgage insurers, and other members of the partnership should work collaboratively to reduce homebuyer downpayment requirements. Mortgage financing with high loan-to- value ratios should generally be associated with enhanced homebuyer counseling and, where available, supplemental sources of downpayment assistance.

⁵⁷ In 1995 HUD announced HUD's “National Homeownership Strategy”. HUD announced that it had “forged a nationwide partnership that will draw on the resources and creativity of lenders, builders, real estate professionals, community-based nonprofit organizations, consumer groups, State and local governments and housing finance agencies, and many others in a cooperative, multifaceted campaign to create ownership opportunities and reduce the barriers facing underserved populations and communities.” The goal was to make “financing more available, affordable, and flexible” in order to:

Increase ownership opportunities among populations and communities with lower than average homeownership rates;

Reduce downpayment requirements and interest costs by making terms more flexible, providing subsidies to low- and moderate-income families, and creating incentives to save for homeownership; and

Increase the availability of alternative financing products in housing markets throughout the country.

Found at: <http://www.huduser.org/publications/txt/hdbrf2.txt>

⁵⁸ HUD's “National Homeownership Strategy – Partners in the American Dream”, <http://web.archive.org/web/20010106203500/www.huduser.org/publications/affhsg/homeown/chap1.html>

The amount of borrower equity is an important factor in assessing mortgage loan quality. However, many low-income families do not have access to sufficient funds for a downpayment. While members of the partnership have already made significant strides in reducing this barrier to home purchase, more must be done. In 1989 only 7 percent of home mortgages were made with less than 10 percent downpayment. By August 1994, low downpayment mortgage loans had increased to 29 percent.”

And this “action item” on “Flexible Mortgage Underwriting Criteria”:⁵⁹

The partnership should support efforts to increase local lender awareness and use of the flexible underwriting criteria established by the secondary market, FHA, and VA.

In recent years many mortgagees have increased underwriting flexibility. This increased flexibility is due, at least in part, to local lender community reinvestment strategies and liberalized affordable housing underwriting criteria established by secondary market investors such as Fannie Mae and Freddie Mac. Yet, many prospective homebuyers still cannot qualify for a conventional mortgage.”

Concerned that not enough was being done, HUD commissioned the Urban Institute in 1997 to study Fannie and Freddie’s credit guidelines.⁶⁰ It advised:

“Almost all the informants said their opinion of the GSEs has changed for the better since both Fannie Mae and Freddie Mac made substantive alterations to their guidelines and developed new affordable loan products with more flexible underwriting guidelines. ...

Informants did express concerns about some of the GSEs’ practices. The GSEs’ guidelines, designed to identify creditworthy applicants, are more likely to disqualify borrowers with low incomes, limited wealth, and poor credit histories; applicants with these characteristics are disproportionately minorities.”

There could have been no more direct effort to gut the 3 Cs of underwriting. The fundamentals of underwriting were designed for sustainable lending and were based on the presence of sufficient collateral (downpayment), good credit, and sufficient capacity (income).

As noted earlier, the risks of “flexible underwriting” were well known. There were also questions as to how the trillions of dollars in new lending would play out in the very neighborhoods the strategy was intended to help:

“Who’s to say cities full of \$70k homes couldn’t become \$50k, or neighborhoods of \$40k duplexes become \$30k duplexes, overnight? In the middle-to-late ‘80s we say property values fall in Texas by 20%.”⁶¹

⁵⁹ Id.

⁶⁰ <http://www.urban.org/publications/1000205.html>

The GSEs' affordable housing mandates and the trillions of dollars in affordable lending they produced were central to the dramatic shift to flexible underwriting. Without the GSEs' charter advantages and their developing the underwriting flexibilities,⁶² creating the demand, and adding credibility, the non-prime primary market could not have developed as broadly and continued for as long. Despite Congress' efforts to promote homeownership with low downpayment FHA financing, the rate of homeownership had stagnated over the 25 year period from 1966 (63.8%) to 1991 (64.2%). By 1992 Congress decided that the private sector needed to be enlisted in the effort and the GSE Act would be the means.

Charts 14 and 17 above show the enormous incremental increases in the GSEs' purchases of low- and moderate-income mortgages over 1993 to 2007. This was the result of escalating affordable housing goals. Congress had set interim goals of 30% for 1993, 1994, and 1995. This was the baseline level believed to represent the GSEs' existing acquisitions levels and provided time to allow the GSEs to ramp up for the much higher permanent goals that HUD would periodically set for 1996 and beyond.

Chart 19 sets forth the GSEs' single family low and moderate income (low & mod), special affordable housing goals, and underserved areas goals as they changed over time.⁶³ Specific home purchase goals were added in 2005. As reported by the FHFA/HUD, the GSEs generally met the numeric housing goals since the beginning of the program, with most of the failures occurring in 2007 and 2008.

The GSEs failed to meet the low & mod goal in 2008. Excluding the miss in 2008 and 1999 and 2000 (which appear to be ramp up years to the large increase from 42% to 50% in 2001), Fannie and Freddie exceeded their low & mod goal by an average of about 2% and 1.5% per year respectively.

The GSEs failed to meet the special affordable goal in 2008. Excluding the miss in 2008 and 1999 and 2000 (which appear to be ramp up years to the large increase from 14% to 20% in 2001), Fannie and Freddie exceeded their special affordable goal by an average of about 2.5% and 2.0% per year respectively.

The Freddie failed to meet the underserved areas goal in 2008. Excluding Freddie's miss in 2008 and 1999 and 2000 (which appear to be ramp up years to the large increase from 24% to 31% in 2001), Fannie and Freddie exceeded their special affordable goal by an average of about 3.0% and 2.0% per year respectively.

⁶¹ Tom LaMalfa, presentation before the Wisconsin Mortgage Bankers Association, "The Case Against Fannie and Freddie", April, 1998

⁶² By 1993 Fannie had approved 169 Community Homebuyer transactions with 260 variances or flexibilities. Fannie Mae Credit Policy document, "Variances to Community Homebuyer and Housing Initiatives Program, April 6, 1993

⁶³ FHFA Mortgage Market Note 10-2, <http://www.fhfa.gov/webfiles/15408/Housing%20Goals%201996-2009%2002-01.pdf.pdf>

In general it appears that the GSEs managed to the current or anticipated goals. There were many variables which made reaching the goals a moving target. Loans might meet multiple goals, changes in interest rates over the course of a year could change the mix of goals rich loans and the ability to reach one or more goals by year's end, and HUD on occasion disallowed certain loans from being counted.

Chart 19:

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Low & Mod Housing Goal	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%

With the active encouragement of HUD, the GSEs' affordable housing mission regulator, a relentless assault was made upon the core underpinnings of safe and sound underwriting: capacity (income), collateral (downpayment) and credit. As noted earlier the propensity of loans with low downpayments, high debt ratios, and poor credit histories to default were well known. Administrative fiat and wishful thinking made these "old fashioned" underwriting concepts and concerns about excessive defaults fade away. Fannie and Freddie rolled out "innovative" program after innovative program that substituted new and untested rules on income or abandoned income qualification entirely, eliminated down payments, and catered to borrowers with damaged credit. The frequency of these innovations seemed to coincide with the ever increasing affordable housing goals set by HUD.

There is ample evidence that the GSEs acquired substantial quantities of goals qualifying loans at a break even or even a loss with the only business purpose being to meet their housing goals. This conscious subsidization had many effects including increasing the acquisitions of these high risk loans and a weakening of the GSEs' financial position, while at the same time putting pressure on their competitors. The GSEs were buying as much of the lower risk end of the high risk market that they needed to. This cherry-picking by the GSEs left the higher risk portion of subprime to FHA and the subprime lenders. This will be discussed in greater depth in the next section on crowding out by the GSEs. It also made the self-denominated subprime business look higher priced or predatory when compared to the GSEs' subsidized pricing. Subprime lenders had limited opportunity to cross subsidize. As it turned out, the GSEs' high risk loans were mis-priced by much more than either GSE had calculated.

Significant subsidization of Fannie's affordable housing loans started in the mid-'90s. In 1995 Fannie recognized that its "average pricing of risk characteristics provides insufficient targeting of the subsidy. The majority of high LTV loans go to borrowers with income above 100% of the area median, 58% of the 91-97% LTV [loans]".⁶⁴ As a result Fannie went to great efforts to target loans with downpayments of 3% or less (one of its most risky products) to low and moderate income borrowers. By 2007 63% of loans with downpayments of 3% or less were obtained by borrowers with incomes below the median.⁶⁵

Also as of 1995 Fannie was acquiring Community Home Buyer Program loans (in 1995 CHBP was Fannie's lead community lending program) with negative net returns. This was the case for both 1994 and 1995 CHBP originations generally and for the 1994 and 1995 91-95% LTV CHBP loans. A "negative net return on capital results" was based a comparison of projected default incidence to the maximum default incidence before a negative net return result. For example, the 91-95% LTV CHBP loans in 1995 had a zero return at a maximum incidence of 8.89 per 100 loans. Projected Ultimate Incidence was 11.11. Fannie's target return was 15% in 1995. With respect to high-LTV community lending "an overall net return on capital of at least 3%" was expected.

Also in 1995, Fannie found these factors contributing to the poor performance of CHBP loans:⁶⁶

1. Borrower's source of funds for down payment were questionable, uncertain, and/or unacceptable;
2. Third party origination (TPO) loans accounted for about half the deliveries and had about twice the serious delinquency rate on non-TPO loans;
3. Layering of underwriting flexibilities (housing expense ratio, total debt ratios, and cash reserves) continues to increase risk

As a result Fannie tightened up on its guidelines to address the adverse effect of multiple flexibilities. It decided not to address the profitability and return gap directly. This would have entailed either increasing the mortgage insurance coverage percentage to 35% or increasing the risk fees charged. It did not take these two steps because "imposing either option would most adversely affect borrowers most in need of help."⁶⁷

There is documentary evidence confirming the level of subsidies and affordable housing goals as a central driver of the GSEs' business. By the mid-2000s prime loan share and returns on equity (ROEs) were shrinking, had fewer goals rich loans, had declining spreads and many of the goals rich loans had low to negative ROEs.⁶⁸ At the same time, as was noted in Chart 19 above, goals were heading higher. It is not inconceivable that for the riskiest goals rich subprime loans the GSEs were charging guaranty fees that were 75-100 basis points lower than the notional amount

⁶⁴ Fannie Mae Credit Policy memo, "Risk Pricing – Idea for the August 3/4 meeting and Addressing Short-term Pricing Opportunities, July 21, 1995

⁶⁵ HUD PDR, Profiles of GSE Mortgage Purchases in 2005-2007

⁶⁶ Fannie Mae Credit Policy memo, "Community Lending Review", November 17, 1995

⁶⁷ Id.

⁶⁸ "Freddie Mac's Business Strategy", March 2-3, 2007

charged by their competition. Self-denominated Subprime loans were highly goals rich and growing in share.⁶⁹

In 2009 FHFA did a study of the GSEs' 2007 and 2008 books of business that documents the extent of GSE subsidization of low downpayment and low FICO loans (both goals rich categories).⁷⁰

Meeting affordable housing goals was the means for the GSEs to protect their charter privileges. At Fannie its mantra since the early 1990s was "protect the franchise". As noted above, profit took a back set to the efforts to meet the housing goals.

The GSE Act and HUD were also instrumental in the GSEs' substantial expansion into subprime lending:

1. HUD agreed in 1995 to let Fannie and Freddie get affordable-housing credit for buying subprime securities that included loans to low-income borrowers.⁷¹
2. In October 2000 HUD raised the GSEs' main affordable housing goal from 42% applicable for 2000 to 50% for 2001-2003. At the time of this increase, it was noted that "HUD's recent increases in goals for 2001-2003 will encourage the GSEs to further step up their support for affordable housing."⁷² As a result of this and earlier increases, the GSEs' affordable housing goals were 67% higher than those in effect as recently as 1995.
3. The 2003 goal of 50% was subsequently extended to 2004. In 2004 the HUD raised the main goal to 52% for 2005, 53% for 2006, and 55% for 2007.⁷³

All these dramatic changes can be attributed to a single legislative enactment in 1992 – the GSE Act. In one stroke Congress placed affordable housing mandates on Fannie and Freddie and breathed new life into the 16 year old CRA. Fannie and Freddie became the demand and big banks became the supply for CRA loans. This was all done without any appropriations or budgetary impact. The best part was that Fannie and Freddie were more than happy to give members of Congress credit for the affordable housing activity taking place in their districts or state. This gave members of congress influence at Fannie and Freddie. At the same time first Fannie and later Freddie viewed affordable housing as the only way to "protect the franchise". They used it to capture their regulators (both Congress and OFHEO). The key regulator was Congress for only it could adversely change their franchise. The lending process had become politicized.

⁶⁹ Id,

⁷⁰ See FHFA report entitled "Fannie Mae and Freddie Mac Single-Family Guarantee Fees in 2007 and 2008" <http://www.fhfa.gov/webfiles/14700/GFees72009.pdf>

⁷¹ <http://www.washingtonpost.com/wp-dyn/content/article/2008/06/09/AR2008060902626.html>

⁷² <http://www.huduser.org/publications/pdf/gse.pdf>

⁷³ <http://www.huduser.org/Datasets/GSE/gse2007.pdf>

In an effort to comply with the affordable housing goals of the GSE Act, the GSEs would eventually announce a total of \$5 trillion in AH commitments. The first, announced in 1994 by Fannie, was for \$1 trillion.

The GSE Act also provided that the GSEs were expected to lead the industry in making mortgage credit available to low and very low income families (Section 1333) and were required to take affirmative steps to assist banks in meeting their CRA obligations (Section 1335)

This last provision of the GSE Act relating to CRA was designed to solve a problem facing the big banks. CRA gave community groups and regulators an effective veto on bank mergers. The production of CRA loans was needed to get approved. However CRA loans did not comply with GSE underwriting guidelines, thereby requiring banks to hold them in portfolio. This limited their CRA loan production. The answer was to mandate Fannie and Freddie to “take affirmative steps to assist banks” by purchasing their CRA loans. This would allow them to originate new CRA loans (and get future mergers approved). Section 1335 of the GSE Act mandated the GSEs to provide a market (and liquidity) for CRA loans. This would force the GSEs to dramatically change their underwriting standards. CRA is discussed further in Section E

Chart 20 sets out the magnitude of the response by big banks. It is from page 8 of the National Community Reinvestment Coalition’s Annual Report for 2007⁷⁴, wherein the NCRC describes its success in obtaining CRA Commitments.

Among other things, Chart 20 shows:

- ❖ Over the 15 year period 1977 – 1991, the cumulative amount of publicly announced CRA commitments totals \$8.81 billion.
- ❖ In 1992, volume totaled \$33.7 billion – 4 times the volume for the previous 15 years.
- ❖ From 1997 to 2007, CRA commitments totaled more than \$4.5 trillion.

⁷⁴ Source: National Community Reinvestment Coalition’s 2007 CRA Commitments report found at http://www.community-wealth.org/_pdfs/articles-publications/cdfis/report-silver-brown.pdf

Chart 20:

CRA DOLLAR COMMITMENTS (IN MILLIONS)

Year	Annual Dollars	Total Dollars
2007	\$12,500	\$4,566,480
2006	\$258,000	\$4,553,980
2005	\$100,276	\$4,295,980
2004	\$1,631,140	\$4,195,704
2003	\$711,669	\$2,564,564
2002	\$152,859	\$1,852,895
2001	\$414,184	\$1,700,036
2000	\$13,681	\$1,285,852
1999	\$103,036	\$1,272,171
1998	\$812,160	\$1,169,135
1997	\$221,345	\$356,975
1996	\$49,678	\$135,630
1995	\$26,590	\$85,952
1994	\$6,128	\$59,362
1993	\$10,716	\$53,234
1992	\$33,708	\$42,518
1991	\$2,433	\$8,811
1990	\$1,614	\$6,378
1989	\$2,260	\$4,764
1988	\$1,248	\$2,504
1987	\$357	\$1,256
1986	\$516	\$899
1985	\$73	\$382
1984	\$219	\$309
1983	\$1	\$90
1982	\$6	\$89
1981	\$5	\$83
1980	\$13	\$78
1979	\$15	\$65
1978	\$0	\$50
1977	\$50	\$50

In order to obtain an outstanding CRA rating, banks needed to demonstrate outstanding use of “innovative or flexible” underwriting standards. In 1995 the CRA regulations became outcome based. As a result, if two or three large banks were competing in the same market area, each would have to outperform the others in order to maintain an outstanding CRA rating, a process that became detached from actual demand. As a result the CRA commitments kept getting larger and larger.

It was the trillions of dollars of CRA, GSE affordable housing, FHA and other high risk loans with loosened lending that were originated during the period 1994-2007 that were the fuel for the

housing boom and eventual bubble. On a combined basis Fannie, Freddie, FHA, and VA played the dominant role⁷⁵.

- ❖ From 1997 to 2007 Fannie, Freddie, FHA, and VA accounted for an estimated 59% or \$1.75 trillion out of a total of \$2.975 trillion in high LTV home purchase originations;
- ❖ Fannie, Freddie, and FHA accounted for 57% or \$3 trillion out of a total of \$5.25 trillion Subprime home purchase and refinance originations (1997-2007); and
- ❖ Fannie and Freddie accounted for 55% (by loan count) of a total of \$1.4 trillion Self-denominated Alt-A (2002-2007).

The causal relationship from the GSE Act to multi-trillion dollar affordable housing and CRA commitments is clear, as is the connection to the subsequent multi-trillion dollar bailouts. The GSE Act was the fuse that set off a dramatic increase in low downpayment lending and other actions leading to loosened lending standards.

C. The GSEs dominance of the mortgage industry leads to crowding out of its competitors

From the 1990s until 2003, the GSEs' dominance over the mortgage market grew stronger and stronger. As noted earlier, their combined share of all single family mortgages outstanding grew from 25.4% in 1990 to 46.8% in 2003. The GSEs were able to grow so rapidly because of their advantageous charter provisions – in particular their access to unlimited amounts of low cost debt due to their implicit federal guarantee and their congressionally set high leverage levels. These government-granted advantages promoted an unrestrained appetite for growth and permitted them to aggressively protect and grow their share of the mortgage market. The GSEs' share of all mortgage debt outstanding grew from 28.2% in 1991 to 41% in 2007.⁷⁶

Being a statutory duopsony⁷⁷, the GSEs had the ability to beat any competitor in any arena in which they chose to compete. This was the case with respect to both government (FHA) and private sector competitors. In general their competitors were relegated to the higher risk portions of the market: subprime, Alt-A, second mortgages, jumbo lending, and ARMs. These factors acted to crowd out their competitors (largely banks, securities firms, and insurance companies). In response to this crowding out, their competitors sought higher yields further out the risk curve.

The GSE Act mandated the GSEs to dramatically increase the primary market's supply of affordable housing loans. The only means to accomplish this was by means of ever greater leverage (lower downpayments) and the progressive weakening of underwriting standards (flexible underwriting). The GSEs' credit policy staffs knew that these loans were both risky and difficult to price in a manner sufficient to meet normal rate of return targets. As noted earlier, the GSEs ended up subsidizing high risk lending with their low risk business. The MBS guaranty

⁷⁵ Exhibit 3 for Fannie and Freddie, FHA's Actuarial Study for FHA, and HUD for VA

⁷⁶ Source FHFA, <http://www.fhfa.gov/webfiles/14597/SFMOutstanding1990to2009Q1.xls>

⁷⁷ BusinessDictionary.com, A duopsony is a "market situation in which only two buyers create the entire demand for a commodity supplied by many sellers, a mirror image of duopoly."

portion of their businesses was low margin and did not yield sufficient subsidy for the task. The portfolio had much larger margins and could provide the needed subsidies. Growing the portfolio was the solution. The GSEs' combined mortgage portfolios increased from \$136 billion in 1990 to \$1.58 trillion in 2003. Over time the high risk portion of the business grew and as the downpayment requirement shrunk, the cross subsidies needed became larger and the mispricing of risk became more unsustainable. As a result, the GSEs seriously under priced the risks that they were taking on, thereby compounding the problem posed by their high level of leverage. This under pricing caused high rate subprime lending to appear overpriced.

From the mid-'90s onward the GSEs were themselves moving out the risk curve, to higher LTV and A-, B,⁷⁸ and Alt-A loans, thereby crowding their competitors into the shrinking pool of loans remaining. Fannie and Freddie's funding advantages generally allowed them to pick off the low hanging higher risk fruit for themselves and most of the industry's profits. In 1996 this was described as follows:

"The real culprit in the demise of the thrifts is the tax and regulatory preferences given the duopoly, Fannie Mae and Freddie Mac. They grew strong on the thrifts' lunch (breakfast and dinner too). Fannie and Freddie currently account for more than 40% of all secondary market activity. Between them they extract more than \$3 billion of net income from the mortgage finance business. Based on what we saw occur in the conforming market, we fear their market share is on the road to becoming the lion's share. [Proposed] entry into the jumbo and B-D [subprime] markets will give the agencies renewed growth prospects well into the 21st century.

In the end, everything is driven by the bottom line. He who has the cheapest unit costs and highest return on equity wins the game."⁷⁹

In October 1996 the same warning was delivered to the Mortgage Bankers Association at its national convention:

"Here's the premise, it's simple and straight forward: the GSEs, Fannie Mae and Freddie Mac, are eating your companies' and the industry's breakfast and lunch. They are

⁷⁸ Traditionally, prime loans had a grade of "A" and subprime loans had grades ranging from "A-", to "B", "C", and "D". Historically Fannie and Freddie acquired "A" loans, leaving the "A-" to "D" subprime grades to others. The grades of "A-" and "B" accounted 75%-plus of the subprime market. In the mid-1990s the GSEs began to see the "A-" subprime segment as fertile ground for expansion. By the late-'90s they began to look at the "B" segment. FICO scores, which were invented in 1989, had become the common means for evaluating a borrower's credit history by 1996. FICO score, in combination with automated underwriting systems, accelerated the GSEs' shift into subprime. From the GSEs' perspective this allowed them to turn what they judged to be lower risk "subprime" loans into prime loans acceptable to the GSEs. From the point of view of competitors, the GSEs were cherry-picking. In the end, the GSEs' expansion into subprime turned out to be higher risk than they had anticipated.

⁷⁹ Tom LaMalfa, "Revelations on the B-D and Jumbo Markets from Freddie Mac's Chairman and CEO", 1996

siphoning its revenues and profits. They commoditize the market. They increase the cost of credit. They create mega-liabilities with miniscule capital to support it.”⁸⁰

The affordable housing goals, which provided Fannie and Freddie with permanence and market preeminence in exchange for a mission, moved the GSEs into the higher risk segments of subprime and Alt-A markets. Clear evidence exists relating to the GSEs crowding out subprime lenders from the mid-1990s through the early-2000s:

1. 1996: Freddie indicates that 10% to 35% of borrowers who obtained mortgages from the subprime market could have qualified for a conventional loan through Loan Prospector, its automated underwriting system;⁸¹
2. Spring 1996: At America’s Community Bankers annual Secondary Market Conference, Freddie CEO Leland Brendsel telegraphed Freddie’s intention to take “about half” of the non-conforming (“B-D”) market when he noted that with credit scoring, it is finding that about half the loans called “B-D” qualify for purchase by Freddie;⁸² and
3. These initiatives were real threats, for in 1997-1999, subprime grades “A-” accounted for 55.1%, B for 25.7%, C for 17.1% and D for 2.2% (by count and excluding loans not graded) of subprime loans⁸³ and the distribution of subprime mortgages by borrower FICO score indicates that the range of the 25th to 75th percentiles for A- was 590-670 (630 average) and for B was 550-610 (570 average);⁸⁴
4. During the period 1997-2001 Fannie, Freddie, and FHA’s share of tracked subprime lending⁸⁵ increased from 51% to 65%.⁸⁶ Said the other way, the private sector’s share shrank from 49% to 35%, a reduction of 29%; and
5. Early 2001: “And, speaking of Fannie Mae and Freddie Mac, let it be said that they now control the subprime market, having through their Alt A and “A-” programs absorbed the largest and best parts of the ‘old’ subprime world. What are left are the “C” and “D” segments. Combined, they only account for 20 to 30 percent of all subprime mortgages. (The old subprime market was about 15 percent of the total market.) Fannie/Freddie programs using risk-based pricing now encompass most mortgages with FICO scores of around 540 and up.”⁸⁷

⁸⁰ Tom LaMalfa, speech delivered to the Mortgage Bankers Association at its national convention.

⁸¹ OCC Working Paper – Economic Issues in Predatory Lending <http://www.occ.treas.gov/workingpaper.pdf>

⁸² Tom LaMalfa, “Revelations on the B-D and Jumbo Markets from Freddie Mac’s Chairman and CEO”, 1996

⁸³ OTS Mortgage Market Trends: What About Subprime Mortgage?” <http://files.ots.treas.gov/19010.pdf>

⁸⁴ Id.

⁸⁵ Data is not available to create a year-by-year total for all subprime loans (both Self-denominated Subprime and loans with a FICO less than 660). Tracked subprime uses the available data which consists of Self-denominated Subprime (whether or not acquired by the GSEs), GSE acquisitions with a FICO less than 660, and FHA insured loans with a FICO less than 660.

⁸⁶ Subprime loans are defined as ones to borrowers with “weakened credit histories that include payment delinquencies and possibly more severe problems such as charge-offs, judgments, and bankruptcies.” There are two varieties of subprime loans: those initially denominated as such and those not so classified but with a FICO below 660. Tracking total subprime by year is difficult. For purposes of this analysis tracked subprime consists of self-denominated subprime as reported by Inside Mortgage Finance and loans with a FICO below 660 that were acquired by Fannie or Freddie or insured by FHA.

⁸⁷ Tom LaMalfa, “Holm Mortgage Finance Report”, January, 2001

As noted earlier, FHA was initially leading the market to higher LTVs. Once the GSEs entered the high LTV and A-/B subprime markets, they became competitors of FHA. This worked to push FHA out the risk curve. This is covered in more detail in the next section.

The GSEs' trillions of dollars in high risk affordable housing (AH) acquisitions were made as a direct result of the GSE Act; spurred on by HUD's periodic increases in AH goals. They served to push their competitors out the risk curve:⁸⁸

1. Over the period 1997-2007 Fannie acquired \$533 billion and Freddie \$307 billion (for a total of \$840 billion) in low downpayment home purchase loans (excludes an unknown amount of first mortgages with a combined LTV >90% acquired over the same time period. As of 12.30.07, the GSEs had a combined \$230 billion⁸⁹ of such loans in their credit portfolios);
2. Over the period 1997-2007 Fannie and Freddie on a combined basis acquired \$707 billion in Self-denominated Subprime Private MBS and \$1.502 trillion in Subprime by Characteristic (FICO <660) home purchase and refinance loans (for a total of \$2.2 trillion); and
3. Over the period 2002-2007 Fannie and Freddie on a combined basis acquired \$154 billion in Self-denominated Alt-A Private MBS and \$619 billion in Self-denominated Alt-A home purchase and refinance loan (for a total of \$713 billion).

The more the GSEs' grew, the more they needed to create more loan demand so as to keep growing. Since they set the rules, they could create new demand with new underwriting flexibilities. For example, the ultimate leverage loan was announced by the GSEs in 2000, the 100% LTV loan. Finally a loan with no downpayment required. This was a powerful green light to the market. As the GSEs pushed out the risk curve, their competitors got pushed out further and further.

D. FHA and VA

FHA's role in the expansion of low downpayment lending has already been documented. For the period 2003-2007 its median LTV was 97%. FHA's original mission was to insure nonprime mortgages (today these would be called either subprime because of FICO or Alt-A because of LTV). In 1968 when Fannie and Ginnie Mae were separated into private and public entities, Fannie was limited to making loans acceptable to an institutional investor (prime loans). Ginnie (and FHA) handled loans that did not so qualify (non-prime). As far back as 1994 (the earliest data on FICO score available), an estimated 36% of FHA borrowers had a FICO below 660. By 1999 this had increased to about 70%. From 2000-2008 the percentage of borrowers with a FICO below 660 averaged about 70%.⁹⁰

⁸⁸ Exhibit 3

⁸⁹ Fannie 2007 10-K and Freddie Q2:2008 10-Q

⁹⁰ FHA's 2009 Actuarial Review

After the passage of the GSE Act, FHA faced competition from Fannie and Freddie for both the low downpayment and low FICO segments of the market. Much like the private sector, FHA responded by shifting to higher risk loans, as noted by this 1997 commentary.

“The advent of credit scoring has put FHA behind the eight ball. Adverse selection is occurring and accelerating. Since 1980 the FHA foreclosure rate has been on an upward trend, from an annual rate of 0.7% to 2.5% today. With Fannie, Freddie, and nonprime lenders using credit scores to pick off the mortgages with the best investment characteristics. FHA is finding it necessary to increase risk to maintain market share.”⁹¹

This observation is born out by FHA’s doubling the percentage of its loans with FICO scores below 660 over the period 1994-1999 and increasing its median LTV from 95% in 1992 to 97% in 2000. This allowed it to maintain its share at about 9% over 1993-2000, the same as its average share for 1990-1992. Ultimately the competition from the GSEs and the private sector became too great and FHA’s share declined to 5% (2001-2004) before declining to under 3% (2005-2007).

FHA loans have an extremely high default rate, particularly when they come under stress. FHA’s own actuarial study projects a 20% average Cumulative Claim Rate⁹² for its 2005-2008 books of loans, with its 2007 book projected to have 1 in 4 loans go to claim. The same study reports that FHA is currently experiencing a 57% severity rate⁹³. At these loss and severity rates one would expect a projected total loss rate of 11.4% (20% x 57%).

VA loans also have high LTVs however a search revealed little information about either LTV or FICO distributions.

At June 30, 2008 FHA and VA were responsible for an estimated 3.8 million loans and an estimated 0.95 million of the 26.7 million high risk loans respectively.⁹⁴

E. The Community Reinvestment Act (CRA):

As noted earlier a CRA home loan is one made to a borrower with an income below 80% of the median or who lives in a neighborhood with an income below 80% of the median. HUD had a companion program targeted to affordable housing and reliant on flexible underwriting standards. At June 30, 2008, CRA and HUD’s “Best Practices” program (HUD Program)⁹⁵ were responsible for an estimated 6.7 million of the 26.7 million high risk loans.⁹⁶

⁹¹ Tom LaMalfa, “Holm Mortgage Finance Report”, January, 1997

⁹² FHA insures loans. When an insured loan is foreclosed upon it results in a claim.

⁹³ FHA insurance covers 100% of the loss. A 57% severity rate means that it loses 57 cents on every dollar going to claim.

⁹⁴ Exhibit 2.

⁹⁵ See Exhibit 2 for additional information on HUD’s Best Practices Program.

⁹⁶ Exhibit 2. It is estimated that a majority of these 6.7 million CRA loans were either acquired by the GSEs or insured by FHA. A small percentage was securitized into private MBS. The total of 26.7 million high risk loans has been deduped for these and other overlaps.

The enforcement mechanism under CRA relied on bank regulators to withhold approvals for mergers or other expansions if a bank did not have a satisfactory CRA record. Sometime in the early 1990s, community groups such as ACORN realized that their greatest leverage with banks and regulators was at the point of a merger/purchase application. They demonstrated against banks and complained to regulators that banks involved in mergers or other expansions did not have satisfactory CRA records. A big merger could be delayed, denied, or conditioned if the regulators were not satisfied, and of course there was political pressure from Congress on regulators if community groups were complaining that a bank did not have a satisfactory record. A large CRA commitment made regulatory approval easier by relieving the bank regulator of the onus of judgment about a bank's CRA record - the larger the merger, the bigger the commitment that community groups demanded. In a 1994 article by Vernon McKinley entitled "Community Investment Act: Ensuring Credit Adequacy or Enforcing Credit Allocation", he notes that there is even a rule of thumb for calculating such CRA commitments - around one half of 1 percent of assets per year.⁹⁷ In order to obtain an outstanding CRA rating, CRA examination regulations required the extensive use of "innovative or flexible lending standards".

Starting in 1992, banks took to announcing merger approvals simultaneously with large new multi-state or national CRA commitments (called unilateral agreements by the National Community Reinvestment Coalition or NCRC). NCRC graphically described the link between mergers and CRA dollars:

"The rise of unilateral agreements also accounts for the fluctuation in dollar amounts on an annual level. For example, 1998 was a year of mega-mergers that included the Bank of America and Nations Bank merger as well as Citigroup's acquisition of Travelers; CRA pledges totaled \$812 billion as a result. The following years saw fewer mega-mergers and considerable less reinvestment dollars. CRA pledges shot up again in 2003 and particularly 2004. The year 2004 experienced watershed mega-mergers as Bank of America acquired Fleet, JP Morgan Chase acquired Bank One, and Citizens gobbled up Charter One."⁹⁸

As a result, over the 16 year period 1992-2007, announced CRA and HUD Program commitments⁹⁹ totaled \$4.5 trillion. The \$5.5 trillion total for the period 1992-2007 represents a 625 times increase in CRA commitment volume over 1977-1991 and provides concrete evidence of CRA's role in the financial crisis. Ninety-four percent of this \$5.5 trillion in commitments can be traced to 4 banks (Citigroup, Bank of America, Wells Fargo, and JP Morgan Chase) and the banks they purchased or merged with.¹⁰⁰ During the period of 2001-2006, NCRC lists \$2.285

⁹⁷ Regulation, 1994, No. 4, <http://www.cato.org/pubs/regulation/regv17n4/vmck4-94.pdf>

⁹⁸ NCRC 2007 Annual Report, P. 6, http://www.community-wealth.org/_pdfs/articles-publications/cdfis/report-silver-brown.pdf

⁹⁹ Countrywide announced a total of \$1 trillion in commitments under HUD's Program.

¹⁰⁰ There is no centralized reporting of single-family CRA production. The author assembled and analyzed information from the following sources to develop a year by year estimate of CRA single-family activity. The National Community Reinvestment Coalition's 2007 Annual Report, the annual reports of selected large banks, and a Fannie Mae press release regarding its CRA volume, along with a CRA study released in 2000 by the Treasury

trillion in merger related commitments involving First Union/Wachovia, Washington Mutual/Dime Corp, Bank of the West, Citibank, Wachovia/SouthTrust, Bank of America, JP Morgan Chase/Bank One, and Regions/AmSouth. Not included in the above is the largest community development commitment in history, for \$1.5 trillion. It was announced in 2008 by Bank of America at a Federal Reserve Public Hearing on the proposed merger between Bank of America and Countrywide Financial Corporation.¹⁰¹

An estimated \$3.5 trillion in single-family CRA and HUD Program loans were originated over 1992-2007.¹⁰² Most of these loans could not be made under traditional underwriting standards and were thus subprime (660 FICO or below) or Alt-A (low downpayment or other innovative or flexible credit feature).

As reported by the New York Times, Attorney General Janet Reno put banks on notice with her November 1993 testimony before the Senate Banking Committee:

““In our view, the lending industry should be subjected to the type of investigation that our department has conducted for many years in other civil rights areas, including the review of all components of an institution's operation over an extended period of time,” she said. ‘It is particularly important to focus on the lender's marketing, branching and advertising practices.’”

The New York Times further reported that Shawmut Bank had had its merger request turned down by the Fed that same month. It added:

“Shawmut, knowing that it was under investigation, had already put in place a program of insured mortgages with low down payments, available to people with limited credit histories, or whose incomes were stable even though they moved from job to job. Up to 33 percent of an applicant's income can go toward housing -- a figure higher than bankers generally accept -- and the program includes other sharp departures from industry standards.”

The story went on to note that Phillip (Rick) Freer, director of compliance at the comptroller of the currency's office, said:

Department (“The Community Reinvestment Act After Financial Modernization: A Baseline Report”). This Treasury report provided valuable benchmark information.

¹⁰¹ Bank of America press release, <http://newsroom.bankofamerica.com/index.php?s=63&item=202>

¹⁰² There is no centralized reporting of single-family CRA production. The author assembled and analyzed information from the following sources to develop a year by year estimate of CRA single-family activity. The National Community Reinvestment Coalition’s 2007 Annual Report, the annual reports of selected large banks, and a Fannie Mae press release regarding its CRA volume, along with a CRA study released in 2000 by the Treasury Department (“The Community Reinvestment Act After Financial Modernization: A Baseline Report”). This Treasury report provided valuable benchmark information.

“‘If it is a pattern or practice that we believe has been discriminatory, we feel very strongly that the regulation requires us to refer it to the Justice Department,’ he said.”¹⁰³

Banks were in a quandary. Unless they could prove that their standard credit guidelines relating to downpayment, credit, and income did not have a disparate impact on minorities, they had better change them to “innovative or flexible” guidelines.

As noted earlier, the GSE Act required the GSEs to take affirmative steps to assist banks in meeting their CRA obligations. In an early 2003 press release, Fannie notes that for the period 2000-2002, it purchased \$394 billion in CRA lending. It also noted that after having stepped up its CRA efforts, more than half of these CRA acquisitions (\$201 billion) occurred in 2002.¹⁰⁴ This constituted about 50% of Fannie’s low and moderate affordable housing acquisitions for 2002.¹⁰⁵ Based on this disclosure along with assumptions about CRA activity that Freddie would also have acquired and the impact of increasing goals, I have estimated that the GSEs’ purchased approximately 50% of single family CRA loans over the period 2001-2007. Of the remainder approximately 10–15 percent was sold to the Wall Street investment banks and securitized; an estimated 10-15 percent was FHA insured; and the balance was retained or acquired by banks¹⁰⁶.

Detailed performance data for single-family CRA lending is rarely published. A search of the top 25 banks by single family mortgage holdings yields only Third Federal Savings & Loan providing performance data on its CRA loans. It reports that its “Home Today” community development program constituted just 4.6% of its owned first mortgage loan portfolio (\$291.7 million), yet these loans represented 36% of its 30+ delinquencies. At 9.30.09 its Home Today delinquency rate is 38% vs. 2.2% on its non-Home Today first mortgage portfolio.

We get another glimpse at CRA loan performance with The Shorebank (Chicago), the nation’s first community development bank. It specializes in CRA lending. At 9.30.09 its single-family first mortgage loan portfolio had a 23% combined delinquency and non-accrual rate. It also had a 22% combined rate on its multi-family lending, an 11% rate on its commercial real estate, a 11% rate on its commercial and industrial lending, and a 34% rate on its construction and development lending. These loan categories account for 98% of its total lending portfolio.

¹⁰³ New York Times, Lending-Bias Rules Create Quandary for Banks, November 28, 1993

¹⁰⁴ “Fannie Mae Passes Halfway Point in \$2 Trillion American Dream Commitment; Leads Market in Bringing Housing Boom to Underserved Families, Communities”
http://findarticles.com/p/articles/mi_m0EIN/is_2003_March_18/ai_98885990/pg_3/?tag=content;coll

¹⁰⁵ In 2002 Fannie acquired about \$804 billion in single family mortgages (FHFA’s 2008 Report to Congress, <http://www.fhfa.gov/webfiles/2331/FHFAReportToCongress2008final.pdf>) and had achieved a 52% low and moderate income goal (see Chart 19 above). This resulted in \$418 billion in low and moderate income purchases.

¹⁰⁶ Various studies have indicated that the percentages of CRA loans with FHA insurance (and presumable going into Ginnie Mae securities) or going into Self-denominated Subprime are in these ranges. Bank holdings account for the residual.

On a more general note, a recent Fed study of CRA loans, as reported by then Fed Governor Kroszner¹⁰⁷, identified CRA loans as a type of subprime loan and noted that “CRA-related subprime loans performed in a comparable manner to other subprime loans.”

There is not a centralized database that tracks CRA loan performance. CRA loans get mixed into the delinquency data reported for FHA, bank holdings, private mortgage backed securities, and the GSEs. As noted above, it is estimated that the GSEs purchased about 50% of recent CRA originations. We know that CRA loans had a high percentage of low down payments and FICOs below 660. We know how the GSEs’ loans with these characteristics performed and that loans with these characteristics were goals rich. Therefore we can infer that these groups of loans constitute a proxy for the performance for CRA loans that had either low down payments (5% or less) or FICOs below 660.

Fannie’s delinquency rate on its \$900 billion in high risk loans, 85% of which are goals rich AH loans, was 11.36% at 9.30.09. This is 6.5 times the 1.8% delinquency rate on the GSEs’ traditionally underwritten loans:

- ❖ Down payment equal to or less than 5% - 11.56% serious delinquency rate;
- ❖ FICO < 620 – 16.08% serious delinquency rate; and
- ❖ FICO >= 620 and < 660 – 11.32% serious delinquency rate.

While this proxy for CRA performance is believed to be reasonable and accurate, the fact that there is no database that tracks CRA loan performance is a serious shortcoming. This is particularly true given the large volume of community lending/CRA activity over 1994 to 2007¹⁰⁸ and its role as a trigger of the Financial Crisis. I have provided the FCIC staff with a suggested means for aggregating detailed performance information about an estimated 70% of community lending/CRA activity. In summary, the FCIC could either directly or request the appropriate regulators to obtain detailed community lending/CRA performance data from Fannie, Freddie, Wells Fargo, JP Morgan Chase, Citibank, and Bank of America. These six institutions should be able to provide performance information for an estimated 70% of such outstanding loans.

F. Wall Street, the Big Banks and Subprime and Alt-A Loans Securitized into Private MBS:

As noted earlier, Self-denominated Subprime’s 7.9% market share in 2003 was less than its 9% share in 1992. Self-denominated Alt-A in 2003 had a 3% share, still a minor portion of overall volume. The volume of both loan types increased dramatically in 2004 and continued at a high volume until the private MBS market collapsed in 2007. At June 30, 2008 subprime and Alt-A

¹⁰⁷ <http://www.federalreserve.gov/newsevents/speech/kroszner20081203a.htm>

¹⁰⁸ See Exhibit 3 for details.

private MBS¹⁰⁹ were responsible for an estimated 7.25 million of the 26.7 million high risk loans, or about 28 percent of all the high risk loans outstanding¹¹⁰

The major originators and/or issuers were the large banks and their subsidiaries, specialty lenders and subsidiaries of Wall Street securities firms.

Forty-six percent of all subprime private MBS were issued after 2004. Seventy-seven percent of all Alt-A private MBS were issued after 2004¹¹¹. While these loans had higher risk characteristics than earlier vintages, the same shift had occurred with other market participants. For example, the GSEs' acquisitions of loans with an LTV of 90% or more increased from \$100 billion in 2006 to \$192 billion in 2007, with a much higher percentage of the 2007 acquisitions consisting of 100% LTV loans.¹¹²

In 2004 Self-denominated Subprime share more than doubled to 18.5%, eventually topping out at 20% in 2006. About two-thirds of this Self-denominated Subprime volume ended up as Self-denominated Subprime Private MBS. How did the Self-denominated Subprime market morph so quickly from a lagging backwater of housing finance to a hot market that was growing faster than Fannie, Freddie, and FHA?

There are many reasons why. In the end they combined to create a most dangerous top to the housing boom now entering its 7th year (in real dollars):

- Housing policies that had stoked demand with high leverage and loosened underwriting standards;
- A yawning affordability gap brought on by the resulting decade long bull market in housing¹¹³;
- An up tick in mortgage rates;
- A 25% drop in volume (based on dollars) for 2004 as compared to 2003.¹¹⁴ Given rapidly increasing home prices, the decrease on a loan count basis was even greater. This caused the usual originator scramble to keep market share. Loosening underwriting further was a traditional method;

¹⁰⁹ Excludes the \$200 billion and \$75 billion in private MBS securities held respectively by the GSEs (Fannie and Freddie) and the Federal Home Loan Banks (FHLBs).

¹¹⁰ Exhibits 1 and 2 Total loans in outstanding subprime and Alt-A private MBS equaled 8.2 million. The GSEs and FHLBs owned private MBS backed by 1.75 million subprime and Alt-A loans.

¹¹¹ Inside Mortgage Finance

¹¹² Exhibit 3

¹¹³ According to the S&P/Case-Shiller 10 city home price index, home prices increased by 112% over the 10 1/2 year period from April 1993 to December 31, 2003. Home prices would go on to increase by a further 40% over the period January 1, 2004 to June 30, 2006.

¹¹⁴ Inside Mortgage Finance

- The GSEs were hit even harder by the volume drop from 2003 to 2004. Their core market consisted of non-jumbo conventional fixed rate loans. This market dropped by about 42% from 2003 to 2004;¹¹⁵
- A switch to ARMs and interest only loans which had lower start rates and therefore were generally utilized the most in markets with the greatest affordability gaps (price run-ups).¹¹⁶ ARMs were also a product where the GSEs were less able to compete¹¹⁷;
- A private sector anxious to regain share after having been marginalized by the GSEs for the previous two decades;
- A risk-based capital regulatory structure that over-incented the creation of “AAA” and “AA” securities¹¹⁸;
- Overly aggressive ratings handed out by rating agencies particularly on collateralized debt obligation (CDOs) and CDOs squared¹¹⁹;
- Introduction of new types of credit derivatives;
- The private sector’s development of an integrated loan origination and securitization process that could compete with the GSEs in terms of both price and efficient execution¹²⁰;
- The attractiveness of the higher yields that “AAA” and “AA” private MBS offered over agency MBS;
- A growing amount of world-wide liquidity looking for “AAA” and “AA” securities to invest in; and
- The GSEs’ accounting scandals which left them politically weakened. Protecting the franchise took on an even more heightened urgency. A combination of growing affordable housing goals and a shift of goals rich loans to subprime/nonprime forced

¹¹⁵ FHFA

¹¹⁶ Fannie Mae document, “Single Family Guaranty Business – Facing a Strategic Crossroads, 6.22.05

¹¹⁷ One of the GSEs’ strengths was their ability to fund fixed rate loans. Their charter advantages allowed them to borrow long-term at low rates, something banks and many other investors could not match. ARMs were a better match to banks’ and other investors’ funding sources. The GSEs had much less of a funding advantage on ARMs.

¹¹⁸ Risk-based capital regulations set 8% as a risk-adjusted capital requirement. A 20% weight is placed on both “AAA” and “AA” private MBS and Fannie and Freddie MBS, thus requiring 20% x 8% or 1.6% in risk based capital, resulting in a 62.5:1 leverage ratio. An unsecuritized mortgage loan held on a bank’s balance sheet had a 50% weight thus requiring 50% x 8% or 4% in risk based capital, resulting in a 25:1 leverage ratio. This created a tremendous financial incentive to maximize “AAA” and “AA” tranches of private MBS and minimize tranches with ratings below “AA”.

¹¹⁹ CDOs were securities comprised of tranches from private MBS. CDOs squared were securities comprised of tranches from CDOs.

¹²⁰ The GSEs were limited by charter to the secondary market; therefore they could not undertake their own integrated loan and securitization platforms.

them more heavily cross subsidize affordable housing loans and increase their acquisition percentages.

From a FICO perspective, Self-denominated Subprime loans were similar to FHA, CRA, and GSE low FICO loans. From an LTV perspective, Self-denominated Subprime loans were similar to FHA and CRA low downpayment loans, with the GSEs' low downpayment loans having higher FICOs. A major difference was that Self-denominated Subprime loans consisted primarily of ARMs. The MBA reports that Self-denominated Subprime ARMs have about double the delinquency rate of Self-denominated Subprime fixed rate loans. Interest rates were generally higher than on FHA, CRA, and GSE loans.

The GSEs acquired over half (by number) of all Self-denominated Alt-A loans. Those not acquired by the GSEs had loan balances that were nearly double in size, had a higher percentage of investor loans, had somewhat lower FICO scores, and had a higher percentage of ARMs (including negative amortization). Interest rates were generally higher than on GSE loans.

As noted earlier the boom had been going on for many years and had been largely fed by GSE, CRA, and FHA induced lending. The growth in apparent home equity that the boom created started an equity extraction boom that reached a state of frenzy in 2004-2006. This helped fuel further economic growth which prolonged the boom.

The fact that the most risky loans came at the end of the boom is not unusual. Previous real estate run-ups and corrections had been topped off by a heavy dose of particularly risky lending. The two strongest post-Depression corrections were in the oil patch states in the early 1980s (Texas, Oklahoma, Colorado, Louisiana, and Alaska or COLTA states) and the late-1980s/early 1990s (the Northeast and Southern California). The period from 1980 to 1985 was marked by the advent of many affordability enhancement products. Examples include the "easy breather" loan, GPARMs (graduated payment ARMs with negative amortization), and "fog a mirror" loans. The period 1987-1990 was also marked by the advent of "new" affordability enhancing loans and the introduction of the low doc/no doc or liar loan. In 1991, The Wall Street Journal noted in an article entitled "Haste Makes... Quick Home Loans Have Quickly Become Another Banking Mess" that "[L]enders that didn't require data on borrowers find delinquency rising."¹²¹ In this respect the end of this boom was no different than the others before it.

What was unprecedented was the fact that subprime and Alt-A loans of all types comprised 50% of the mortgage market as of mid-2008. To borrow a term from boxing, all of this high risk lending had created the boxer with the glass jaw. However, as will be explained in the next section, the GSEs had hidden from the market the full extent of their involvement in high risk

¹²¹ WSJ, July 5, 1991, "Haste Makes... Quick Home Loans Have Quickly Become Another Banking Mess", See Attachment 8 of Pinto House Committee on Oversight and Government Reform, http://www.aei.org/docLib/20090116_kd4.pdf

lending. As the market digested and reacted to what was happening, it focused on those loans and securities not backed by the government.

G. Hiding the ball

The significance of having 26.7 million or half of the mortgages outstanding in the United States being high risk has already been noted. Complicating the run up to the mortgage crisis was general ignorance in the market place and by regulators as to this fact. While most market observers and regulators were aware of the size of the self-denominated subprime market and other high risk private MBS, there was not the same awareness as to the total size of the high risk market:

The GSEs had been acquiring trillions of dollars of subprime, low downpayment, and other Alt-A loans over the course of many years. A large percentage of these loans had subprime or Alt –A features yet were not classified as subprime or Alt-A loans. This long term misrepresentation by the GSEs as to the risks they were acquiring was finally admitted to by Fannie on November 10, 2008 when it disclosed in its 10-Q:

“We have classified mortgage loans as Alt-A if the lender that delivered the mortgage loans to us had classified the loans as Alt-A based on documentation or other features. We have classified mortgage loans as subprime if the mortgage loan was originated by a lender specializing in the subprime business or by subprime divisions of large lenders. We apply these classification criteria in order to determine our Alt-A and subprime loan exposures; however, we have other loans with some features that are similar to Alt-A and subprime loans that we have not classified as Alt-A or subprime because they do not meet our classification criteria.” P. 182 of Fannie’s Q.3:2008 10-Q

Notwithstanding that the GSEs knew these loans were high risk, they relied on the fiction that if the originator did not call them subprime or Alt-A or if they weren’t high interest rate, they were not so classified. While they held themselves out as experts in credit, they punted on what risks their own loans represented. Why did they do this? They did it because they existed in two realities. For their shareholders, they needed to present themselves as careful and risk averse – not doing subprime loans and zero down loans. To HUD and those interested in affordable housing they needed to show that they were more than meeting their goals and using all the expected tools – low FICOs, low downpayments, and flexible underwriting.

This dichotomy led to no end of confusion for policy makers and observers:

During May 2007 Federal Reserve Chairman Ben Bernanke stated¹²²

¹²² WSJ, May 18, 2007, “Bernanke Plays Down Threat From Subprime Defaults”, <http://www.realestatejournal.com/buysell/markettrends/20070518-thomas.html>

“We have spent a bit of time evaluating the financial implications of the subprime issues, tried to assess the magnitude of losses, and tried to determine how concentrated they are,” Mr. Bernanke said in response to a question following a speech here. “There is a sense that, although there is always a possibility for some kind of disruption ..., the financial system will absorb the losses from the subprime mortgage problems without serious problems.”

The Wall Street Journal further reported:

“During his speech to a Chicago Fed gathering, which focused on the subprime market and the response of regulators, Mr. Bernanke said the effects of the problems in the subprime market on the broader housing market will likely be limited. He also said he doesn't expect the subprime problems to have significant spillover to the rest of the economy.”

Reuters reported on August 1, 2007:

“Treasury Secretary Henry Paulson said on Wednesday the repricing of credit risk was hitting financial markets, but subprime mortgage fallout remained largely contained due to the strongest global economy in decades [h]e did not see anything that caused him to reconsider his view that the economic damage from the housing correction was ‘largely contained,’ despite losses in a number of financial institutions and a long period for subprime issues to filter through the economy.”¹²³

Nobel Laureate Paul Krugman observed as late as July 8, 2008 that the GSEs:

“...didn’t do any subprime lending, because they can’t: the definition of a subprime loan is precisely a loan that doesn’t meet the requirement, imposed by law, that Fannie and Freddie buy only mortgages issued to borrowers who made substantial down payments and carefully documented their income.” (New York Times, July 18, 2008)

It was this and other practices that caused problems for policy makers and others as they tried to determine the size of the mortgage problem, the causes of the mortgage meltdown and craft appropriate fiscal and policy responses.

Looked at from another perspective, the GSEs were in a unique position to determine the risks posed by the massive number of high risk mortgages. They had access to virtually all origination market data. They knew the extent of their own and each other’s subprime and Alt-A purchases (whether classified as such or not), the extent of the subprime and Alt-A private mortgage backed securities market (they were by far the largest participants and saw most of the product offered for sale), the activities of FHA (FHA was a direct competitor for subprime loans sought by them), and the extent and characteristics of CRA loans (while this market is opaque, the GSEs were by far the largest acquirers and would have been offered the opportunity to purchase much

¹²³ Reuters “Strong world econ containing subprime risk: Paulson”
<http://www.reuters.com/article/idUSBJC00005820070801>

of the rest). Under their duopoly structure, many of the CRA, subprime, and Alt-A pools would have been offered to both, with the high bidder winning the loan package.

As stated by Chairman Henry Waxman in his opening statement for the U.S. House of Representatives' Committee on Oversight and Government Reform, The Role of Fannie Mae and Freddie Mac in the Financial Crisis held on December 9, 2008:

“As part of our investigation, the Committee obtained nearly 400,000 documents from Fannie Mae and Freddie Mac. These documents show that the companies made irresponsible investments that are now costing federal taxpayers billions of dollars.”

“The documents make clear that Fannie Mae and Freddie Mac knew what they were doing. Their own risk managers raised warning after warning about the dangers of investing heavily in the subprime and alternative mortgage market. But these warnings were ignored.”

IV. How the growing defaults of Subprime and Alt-A loans caused a world-wide financial crisis

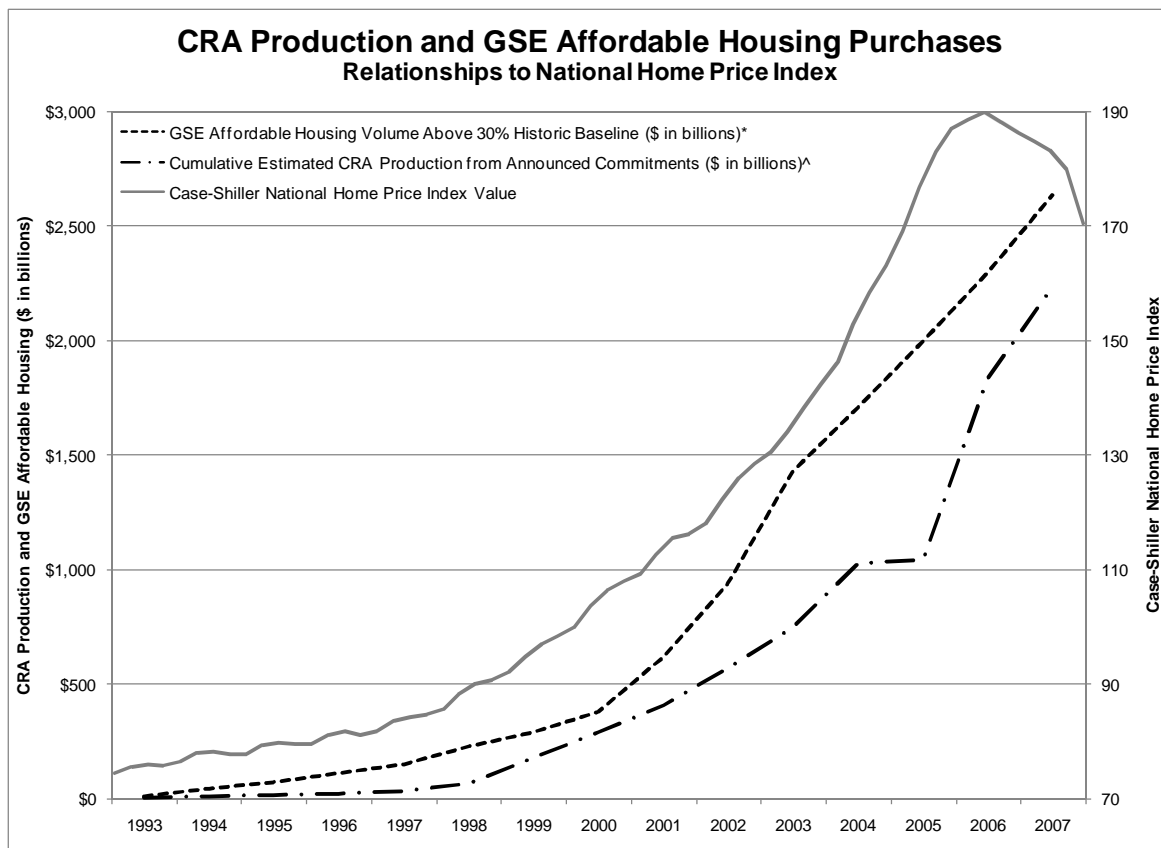
In May 2007, Fed Chairman Bernanke expressed the view that the volume of subprime and Alt-A private MBS was insufficient “to have significant spillover to the rest of the economy”. This was the view of many at the time that Chairman Bernanke spoke because most observers of the housing market had no idea that the number of high risk loans had grown to such an unprecedented size. It is also far from obvious that even if the number of subprime or other weak loans were known, it would have caused a world-wide financial crisis. After all, most of these loans were either held by or guaranteed the GSEs or by agencies of the US government, and as it turned out the government—not the investors--will be taking the losses on these loans.

However, the mechanism that caused the crisis did not require that all the losses be known or realized by investors. As noted above, Fannie and Freddie had routinely misclassified their subprime and Alt-A purchases. In addition, the loans made by large banks under their CRA commitments were not made at high interest rates—were not, in other words, self-denominated subprime loans under the conventional definition—and this obscured the actual number of high risk loans outstanding in 2007. The 30 percent of the high risk loans that had been securitized by Wall Street investment banks, plus the FHA and VA loans—a total of about 12.9 million mortgages--were the total number of high risk loans that most observers expected to encounter. The expected performance of these loans in the event of a housing downturn was also known. That’s why Chairman Bernanke and many others expected that the losses from high risk loans would be manageable as housing prices began to level off and decline.

V. Conclusion:

As Chart 21 once again demonstrates, it was the trillions of dollars of CRA, GSE affordable housing, FHA and other high risk loans with high leverage and flexible underwriting that were originated during the period 1994-2007 that were the fuel for an unsustainable housing boom.

Chart 21:



Reduced to its essentials, housing policy, mandates for higher leverage, and GSE market power over stimulated the housing market while simultaneously pushing competitors into riskier sectors of the mortgage market:

1. By 1995 a national policy requiring increasing leverage at the borrower and investor levels (the GSEs) was in place. Borrower leverage was increased through the reduction of downpayment amounts and myriad of flexible underwriting rules;

2. Over a 14 year period this growing leverage over stimulated demand which propelled home prices higher.
3. By 2004 this excessive stimulation had created a significant affordability gap between house prices and incomes. In an effort to close this gap, further expansions of leverage and flexible underwriting were undertaken.
4. Ultimately equilibrium was so distorted that demand and home prices collapsed and the negative spillover effects adversely affected first the credit markets and then the macro economy.

Put more directly, incremental governmental intervention into U.S. housing policy on a massive scale vis a vis Fannie, Freddie, FHA, the FHLBs, Affordable Housing and CRA, derailed the economy and caused the Crisis of 2008 and the Great Recession.

The result was a classic case of the “Tragedy of the Commons”.¹²⁴ Viewing homeownership as a public good, various Congresses and several administrations created moral hazard and both principal-agent and resource allocation problems, and then placed the entire package at the center of the commons for all to use. Over leverage applied to home ownership was tantamount to overgrazing the commons.

¹²⁴ Wikipedia, “Tragedy of the Commons: a situation in which multiple individuals, acting independently, and solely and rationally consulting their own self-interest, will ultimately deplete a shared limited resource even when it is clear that it is not in anyone's long-term interest for this to happen.”