



HOUSING AND MORTGAGE MARKETS AND THE  
HOUSING GOVERNMENT-SPONSORED  
ENTERPRISES IN 2008

December 2009

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## **PREFACE**

This Federal Housing Finance Agency (FHFA) research paper reviews developments in the housing sector and mortgage markets and the activities of Fannie Mae, Freddie Mac, and the Federal Home Loan Banks in 2008. The paper is part of FHFA's ongoing effort to enhance public understanding of the nation's housing finance system. The paper was prepared by Andrew Leventis, Forrest Pafenberg, and Valerie Smith of the Office of Policy Analysis and Research. Scott Laughery and Hanna Nguyen provided research assistance.

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## **SUMMARY**

The U.S. economy deteriorated further in 2008, driven by continued weakness in housing and mortgage markets and growing distress in financial markets. Falling house prices, rising mortgage delinquencies, and a resulting sharp decline in the values of mortgages and mortgage-backed securities (MBS) eventually threatened the solvency of major financial institutions and resulted in several failures and forced mergers, a large drop in the stock market, and a sharp reduction in liquidity in financial markets.

The federal government responded to those problems and the recession that had begun in December 2007 with an economic stimulus package and reductions in short-term interest rates and massive injections of liquidity into financial markets by the Federal Reserve System. In September the Federal Housing Finance Agency (FHFA) placed Fannie Mae and Freddie Mac (the Enterprises) in conservatorship. In addition, the Department of the Treasury agreed to protect each Enterprise's solvency by acquiring preferred stock and established programs to purchase Enterprise MBS and to provide a liquidity backstop to the Enterprises and the Federal Home Loan Banks. In November, the Federal Reserve announced a program to purchase debt issued by the housing government-sponsored enterprises (GSEs) and MBS guaranteed by the Enterprises and Ginnie Mae.

Conditions in the housing sector deteriorated throughout the year. The decline in house prices that had begun in the fourth quarter of 2007 accelerated, with many areas—especially those that had experienced large price booms—showing record rates of decrease. Mortgage delinquency and home foreclosure rates increased and housing starts and sales fell sharply.

With the collapse of subprime and Alt-A lending, tighter credit conditions, and stricter underwriting standards, single-family mortgage originations fell 38 percent to \$1.5 trillion in 2008. Loans insured by the Federal Housing Administration (FHA) jumped more than three-fold to \$253 billion, one-sixth of all single-family lending. Mortgage purchases and issuance of MBS by Fannie Mae and Freddie Mac declined in 2008 with the drop in mortgage originations and surge in FHA activity. The Enterprises' share of single-family MBS issuance rose to over 73 percent, however, and the credit risk characteristics of their purchases began to improve. Issuance of MBS guaranteed by Ginnie Mae jumped with the expansion of FHA endorsements, while private-label securitization was negligible. The Federal Home Loan Banks increased their MBS holdings and continued to be a major source of liquidity to their member financial institutions.

## **DEVELOPMENTS IN THE BROADER ECONOMY**

The U.S. economy continued to experience a severe recession and financial market distress throughout 2008. Amid widespread concerns about the solvency of many major financial institutions, liquidity in financial markets declined sharply beginning in mid-September and short-term funding markets froze in October. The Federal Reserve reduced interest rates and took other unprecedented actions to increase liquidity in specific credit markets and ease lending terms for specific types of institutions. In September, FHFA placed Fannie Mae and Freddie Mac in conservatorship and the

Department of the Treasury agreed to protect each Enterprise's solvency by acquiring preferred stock and established programs to purchase Enterprise MBS and to provide a liquidity backstop to the Enterprises and the Federal Home Loan Banks. Following those and other actions by the federal government, some credit market indicators began to improve in the latter part of the fourth quarter.

### **Recession and Financial Market Distress Deepen**

The recession that began in December 2007 continued throughout 2008 and worsened in the fourth quarter. Lower interest rates and the boost in consumer spending provided by a federal fiscal stimulus package enacted in February had masked the economic decline during the first half of the year. The shrinking housing sector continued to be a major drag on gross domestic product (GDP). Spending on purchases of new homes and renovations (known as residential fixed investment) fell for the third consecutive year, dropping 23 percent. The economic downturn spread from housing to other industries, as evidenced by declines in vehicle and retail sales and industrial production.

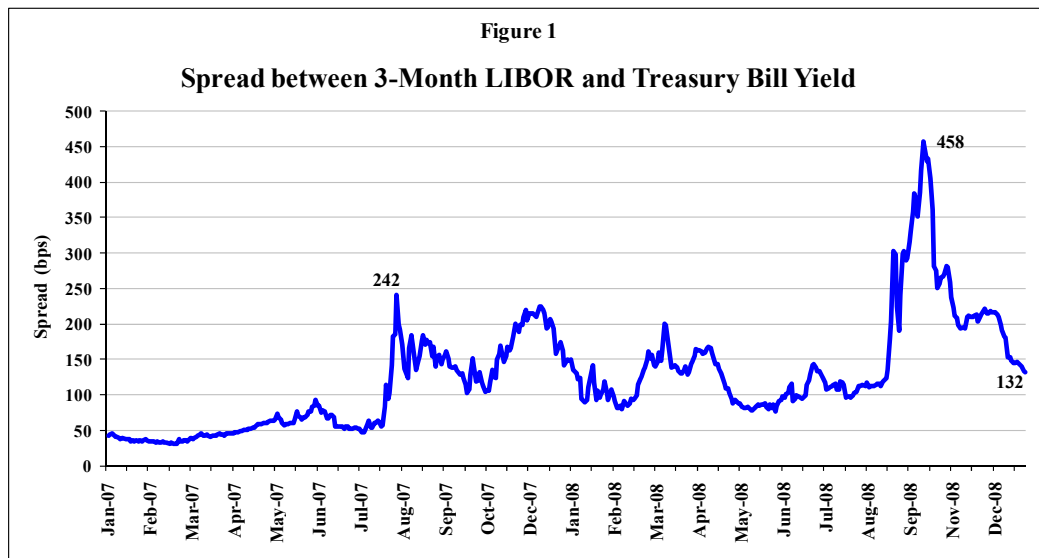
Inflation accelerated in the first half of the year, as measured by the Consumer Price Index (CPI), driven by rising energy and food prices. However, energy prices declined in the third and fourth quarters as global economic growth slowed and demand for oil fell, which helped dampen inflation and caused the CPI to fall in the fourth quarter. The United States lost approximately three million jobs in 2008, and the unemployment rate rose from 4.9 percent in December of 2007 to 7.2 percent one year later, the highest rate since January 1993. The nation's bleak unemployment picture, loss of equity in homes and investments, and tight credit markets caused consumer confidence to plummet and led many to curb spending.

Financial market distress continued throughout 2008 and worsened in mid-September. Continuing declines in asset values in mortgage and equity markets, tight credit conditions, and provisioning for credit losses led to growing concerns about the solvency and liquidity of important financial institutions. Those factors eventually led to the sale of Bear Stearns in March, and conservatorships for Fannie Mae and Freddie Mac, the bankruptcy of Lehman Brothers, and the rescue of AIG in September. The fate of those institutions and general uncertainty about future losses intensified concerns about credit and liquidity risks and resulted in a sharp reduction in market liquidity, evidenced by widening risk spreads. During the early part of October, the spread between the three-month London Interbank Offered Rate (LIBOR) and the three-month Treasury bill rate rose to almost twice its level at an earlier stage of the crisis in August 2007 (see Figure 1).

### **The Federal Reserve and the Treasury Provide Unprecedented Support**

Concerns about fragile conditions in financial markets led the Federal Reserve to continue the policy of monetary easing begun in mid-2007. The federal funds target rate was lowered 225 basis points in the first four months of 2008 to 2.0 percent. The economy briefly showed signs of improving during the summer, but despite fiscal stimulus financial markets continued to deteriorate, both in the United States and abroad.

Short-term funding markets froze. In October, the Federal Reserve collaborated with other central banks to cut interest rates. The federal funds target rate was lowered an additional 100 basis points in October and even further in December to a target range of zero to 25 basis points. In addition, the Federal Reserve announced or introduced several unprecedented programs designed to increase liquidity in specific credit markets and ease lending terms for specific types of institutions. Those included lending facilities for primary dealers, depository institutions, bank holding companies, eligible commercial paper issuers, and special-purpose vehicles established to purchase unsecured asset-backed commercial paper and to finance the purchase of money market instruments from eligible investors.



Sources: Bloomberg Financial LP and Board of Governors of the Federal Reserve System

Because of growing safety and soundness issues at both Fannie Mae and Freddie Mac, on September 6, 2008 the Federal Housing Finance Agency, with the concurrence of the Secretary of the Treasury and the Chairman of the Board of Governors of the Federal Reserve System, placed each Enterprise in conservatorship. In order to prevent the Enterprises' capital from being exhausted, FHFA, acting in its capacity of conservator for the Enterprises and on behalf of each Enterprise, also entered into separate Senior Preferred Stock Purchase Agreements (SPAs) with the Department of the Treasury. Those agreements, which were amended on September 26, 2008 and again on May 6, 2009, committed the Treasury to acquire senior preferred stock in each Enterprise as necessary to ensure that each avoid a negative net worth. In exchange for that commitment, each Enterprise granted to the Treasury shares of senior preferred stock with an initial liquidation preference of \$1 billion. The Treasury's stock purchase commitment for each Enterprise was initially \$100 billion. The SPAs require that each Enterprise, among other things, limit its portfolio holdings to a level not greater than \$850 billion through December 31, 2009, and to reduce its mortgage assets at the rate of 10 percent per year, starting after December 31, 2009 and continuing until they each reach \$250 billion.

The Treasury also established special facilities to purchase MBS guaranteed by the Enterprises and debt issued by the housing government-sponsored enterprises (GSEs)—

Fannie Mae, Freddie Mac, and the Federal Home Loan Banks (FHLBanks). The SPAs and the MBS and debt purchase facilities were undertaken to enable the Enterprises to continue to fulfill their mission of providing liquidity and stability to mortgage markets. Through the end of June 2009, the Treasury had purchased \$161 billion of the Enterprises' MBS and \$85 billion of their senior preferred stock (excluding the initial liquidation preference shares).

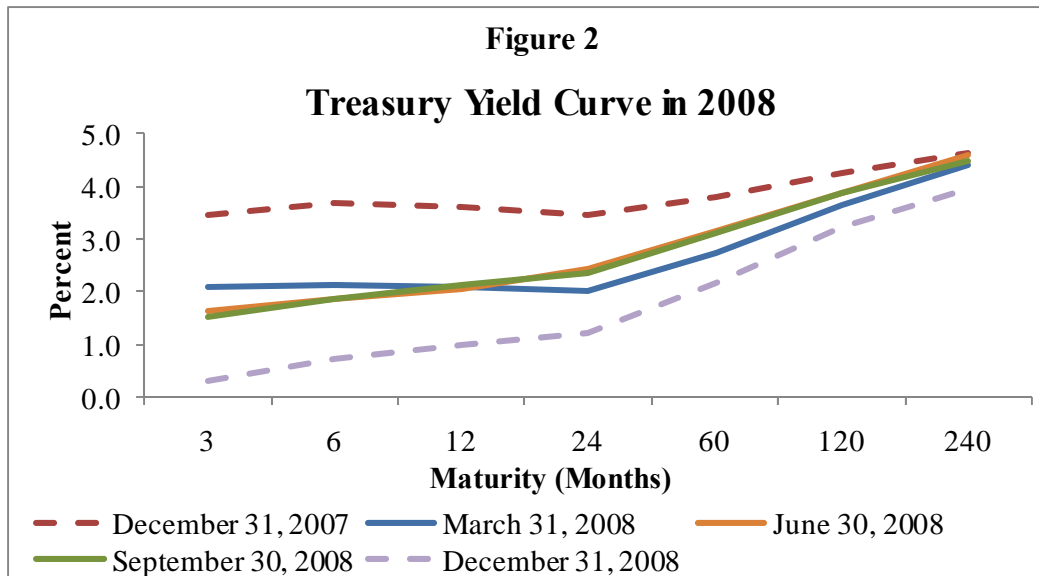
On May 6, 2009, the Treasury and FHFA, acting on each Enterprise's behalf in its capacity as conservator, amended the SPA between each Enterprise and the Treasury. Under the amendment, the Treasury increased its funding commitment for each Enterprise to \$200 billion from \$100 billion, increased the size of the portfolio of mortgage assets allowed under the SPAs by \$50 billion to \$900 billion at December 31, 2009, and increased the allowable debt outstanding for each Enterprise to an amount consistent with the mortgage asset limitation. The amendment left in place the requirement that each Enterprise reduce its mortgage assets by 10 percent each year, beginning after December 31, 2009.

On November 25, the Federal Reserve announced a program to purchase up to \$100 billion in debt securities issued by the housing GSEs and up to \$500 billion in MBS guaranteed by the Enterprises and Ginnie Mae. The goal of those purchases is to reduce the cost of mortgages and increase the availability of credit for home purchases. Purchases of GSE debt in particular were intended to lower the spreads between the yields of those obligations and Treasury debt, which had widened to historic highs. Prior to that action, the Emergency Economic Stabilization Act (EESA), enacted in October, had authorized the Treasury to establish a \$700 billion Troubled Assets Relief Program (TARP) to help stabilize financial markets and support financial institutions. Through the end of June 2009, the Federal Reserve had purchased \$97 billion of GSE debt securities and \$622 billion of Enterprise and Ginnie Mae MBS.

### **Interest Rates Respond to Market Conditions and Government Actions**

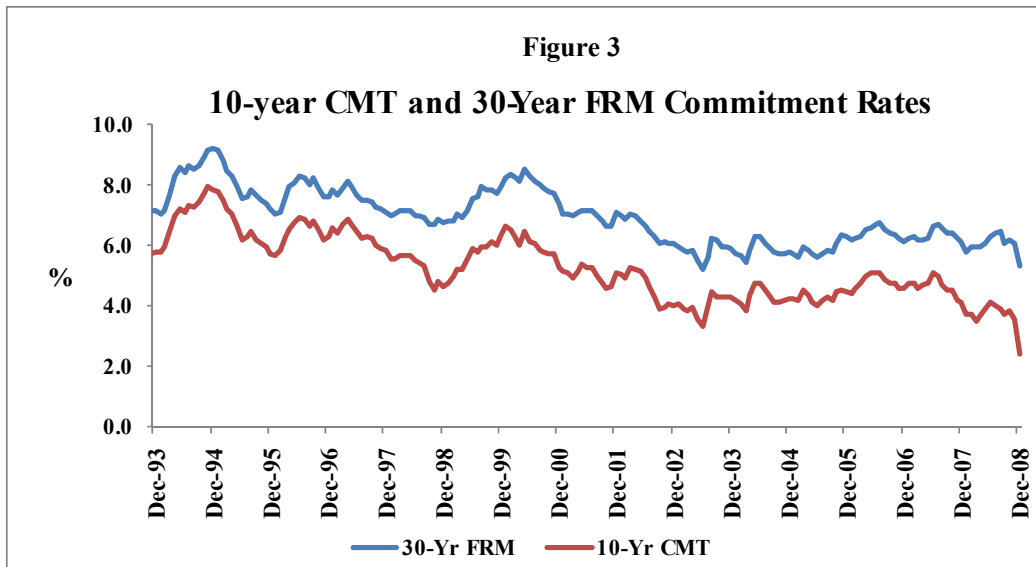
Signs of improvement in some credit market indicators followed the Federal Reserve and Treasury actions in the fourth quarter of 2008, especially in the latter part of the quarter. For instance, the spread between three-month LIBOR and the three-month Treasury bill rate, which had reached 458 basis points on October 10, narrowed to 132 basis points by the end of the year, a level below its 2007 peak but still much higher than its average of about 38 basis points from 2000 through mid-2007. The one-year Constant Maturity Treasury (CMT) yield fell from a high of 3.2 percent in January to a low of 0.34 percent in December 2008. Long-term interest rates rose modestly in the first half of 2008. The yield on the 10-year CMT peaked in June at 4.3 percent, declined thereafter, and ended the year at 2.3 percent or 179 basis points lower than at the end of 2007. Because short-term interest rates fell more than long-term rates, the Treasury yield curve steepened over the course of the year (see Figure 2).





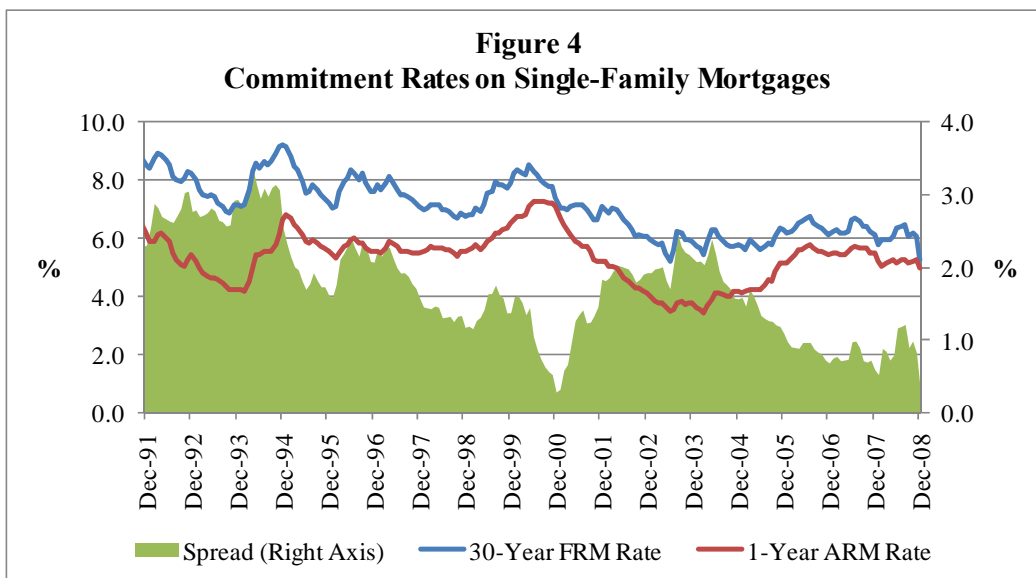
Source: Federal Reserve Board of Governors

Mortgage interest rates, which generally follow the trend of long-term Treasury rates, were volatile in 2008, especially during the first nine months of the year, due in part to uncertainty about the stability of Fannie Mae and Freddie Mac. According to Freddie Mac's Primary Mortgage Market Survey (PMMS), the average 30-year fixed-rate mortgage (FRM) commitment rate reached a high of 6.6 percent in July but then fluctuated. Mortgage rates declined after the establishment of conservatorships for Fannie Mae and Freddie Mac, rose after the bankruptcy of Lehman Brothers and the rescue of AIG, and declined sharply after the Federal Reserve announced it would purchase GSE debt securities and MBS. The 30-year FRM commitment rate fell in the final weeks of the year to a record low at year-end 2008, 107 basis points lower than at year-end 2007. During 2008, the 30-year FRM commitment rate averaged 6.0 percent, 31 basis points below the average for 2007. Likewise, the average commitment rate on one-year Treasury-indexed adjustable-rate mortgages (ARMs) increased through July then decreased toward the end of the year. For the year, the one-year ARM commitment rate averaged 5.2 percent, 39 basis points lower than the year before (see Figure 3).



Sources: Freddie Mac and Board of Governors of the Federal Reserve System

The spread between commitment rates on FRMs and ARMs fluctuated during 2008. From January through August of 2008, the spread between commitment rates on 30-year FRMs and 1-year ARMs widened by an average of 69 basis points (Figure 4). However, by year's end, the FRM-ARM spread had narrowed to the lowest level since 2000, reflecting a large decline in FRM commitment rates.



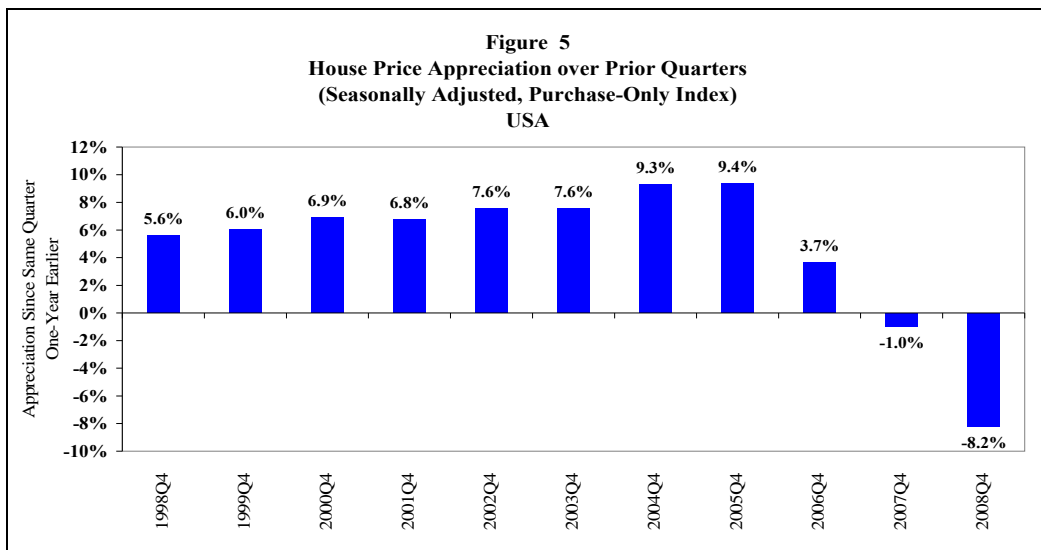
Source: Freddie Mac Primary Mortgage Market Survey

## HOUSING MARKET DEVELOPMENTS

Conditions in housing market deteriorated sharply throughout 2008, especially in the fourth quarter. House prices continued to fall, with many areas experiencing record rates of decline. Falling home prices caused equity in homes to decline sharply. The resetting of the interest rates on poorly underwritten ARMs originated in recent years, deteriorating household balance sheets, rising unemployment, continued credit tightening, and the deepening recession contributed to increases in mortgage delinquency and home foreclosure rates as well as sharply lower housing starts and sales.

### Decline in Home Prices Accelerates

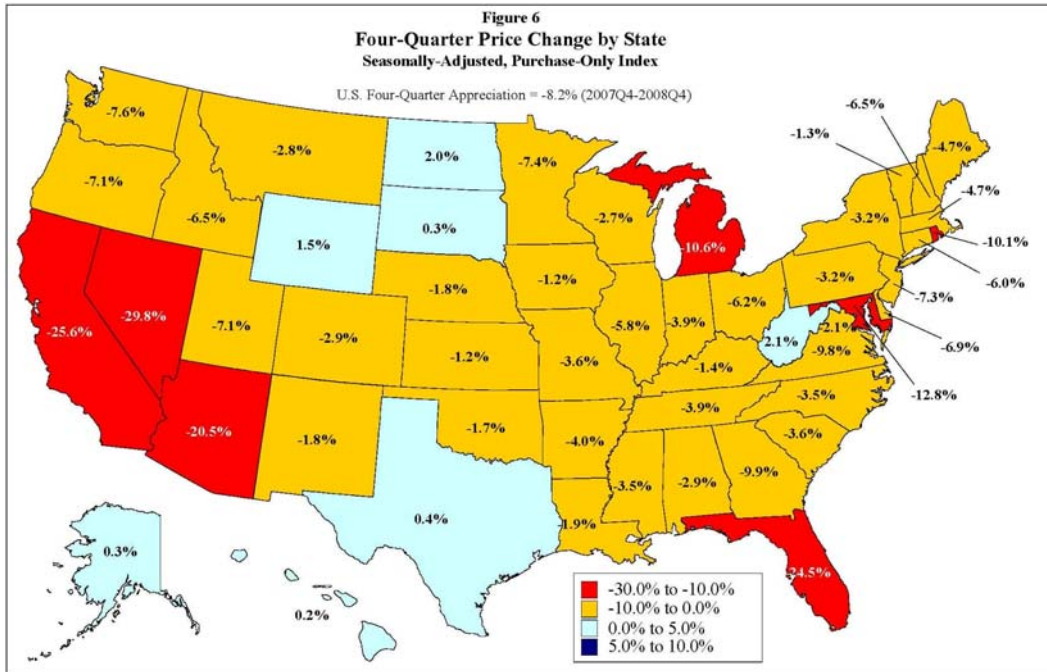
The decline in home prices that began in 2007 accelerated sharply in 2008. Continued tightening in lender credit policies, large inventories of unsold homes, significant volumes of homes in foreclosure, rising unemployment, and increasing pessimism among potential homebuyers combined to drive home prices down further. Home prices, as measured by FHFA's seasonally adjusted "purchase-only" index, which is calculated using sales price information found in Enterprise mortgage data, declined 8.2 percent between the fourth quarter of 2007 and the fourth quarter of 2008. That was only the second time the index showed a fourth-quarter-to-fourth-quarter decline in home prices nationally, and followed a modest one percent decline during the prior four-quarter period (see Figure 5). Other price indexes, which include sales price information for homes with alternative types of financing, calculated even larger price declines for those periods.



Source: Federal Housing Finance Agency

Price declines were widespread throughout the country, but were most extreme in high-unemployment states, notably the Midwest, and areas that saw the greatest run-ups in house prices during the boom. As measured in the FHFA purchase-only price indexes, from the fourth quarter of 2007 to the fourth quarter of 2008 double-digit percentage price declines occurred in six states (see Figure 6). Nevada, California, and Florida experienced the most severe declines with depreciation rates of 29.8 percent, 25.6

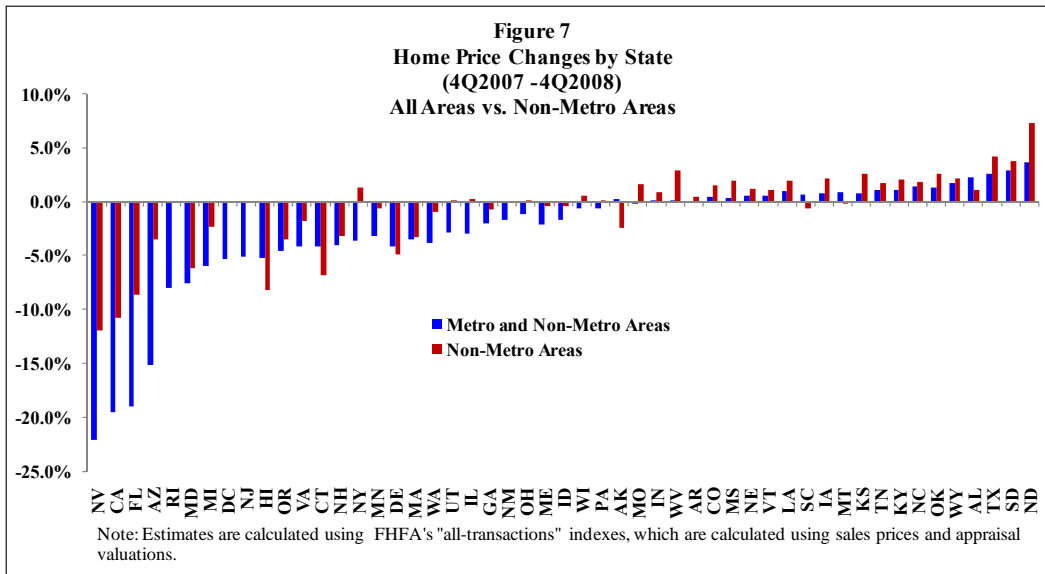
percent, and 24.5 percent, respectively. Only select states in the central part of the country saw relatively stable prices. West Virginia saw the greatest strength in prices, enjoying a modest 2.1 price increase over the four-quarter period.



Source: Federal Housing Finance Agency

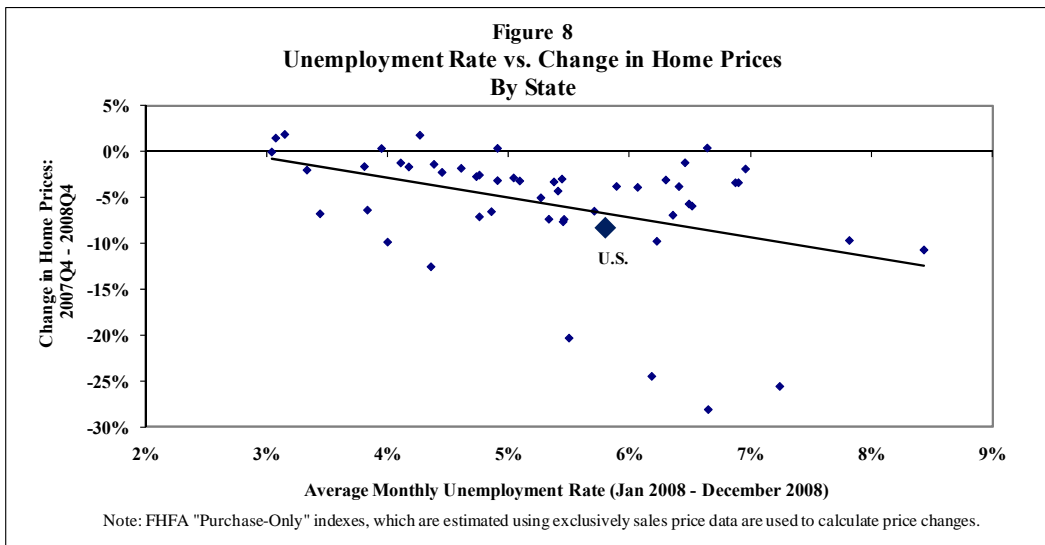
The rate of home price depreciation often varied substantially for different areas within states. In general, prices held up best in relatively rural locales—areas outside of metropolitan statistical areas (MSAs). State-specific indexes show that, from the fourth quarter of 2007 to the fourth quarter of 2008, homes outside of MSAs experienced price declines that were, in many cases, several percentage points less severe than those measured for the state as a whole (see Figure 7).

Although 2008 price declines were caused by many of the same factors that caused price deterioration in the prior year, further weakness in the overall economy played a growing role. Unemployment rates rose sharply throughout the year, and recession fears and consumer confidence worsened.



Source: Federal Housing Finance Agency

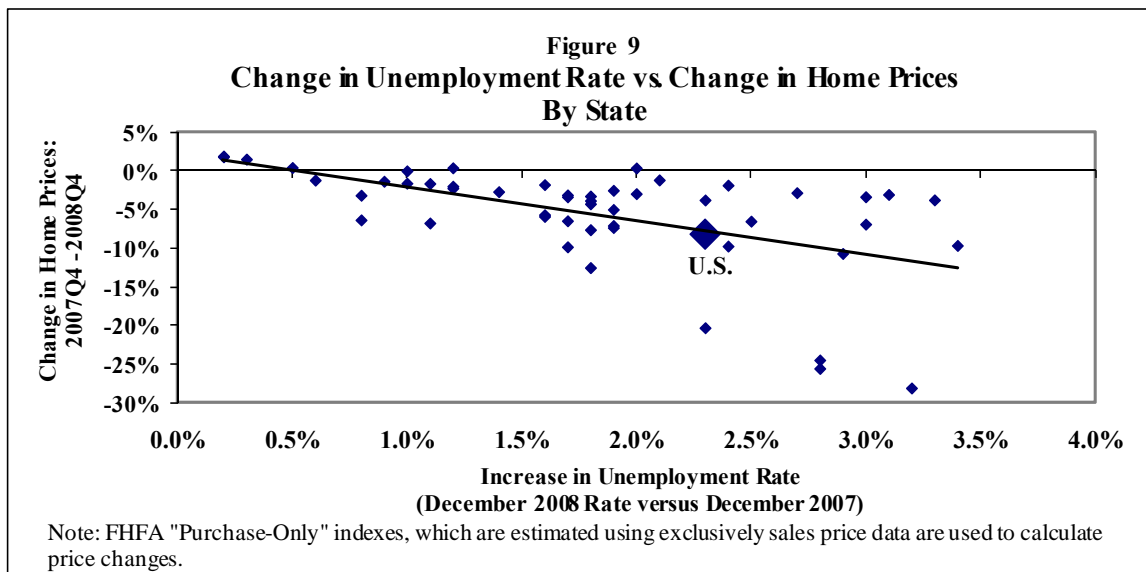
The link between high unemployment rates and price declines is clear when 2008 unemployment rates are plotted against the price declines for each state from the fourth quarter of 2007 to the fourth quarter of 2008 (see Figure 8). The three states with the lowest unemployment rates—South Dakota, North Dakota, and Wyoming—had relatively strong pricing conditions, with estimated four-quarter price increases of 0.3 percent, 2.0 percent, and 1.5 percent, respectively. By contrast, Michigan, Rhode Island, and California, the states with the highest 2008 unemployment rates, had home price declines of 10.6 percent, 10.1 percent, and 25.6 percent, respectively.



Sources: Federal Housing Finance Agency and Bureau of Labor Statistics

Price declines were not only associated with unemployment rates, but also *changes* in unemployment rates. All states saw increases in unemployment rates in 2008. However, those states with the greatest increases (i.e., the labor markets that were weakening the most) experienced relatively sharp declines in home prices (see Figure 9). The causal relationship between the two statistics is, of course, two-directional. Deterioration in

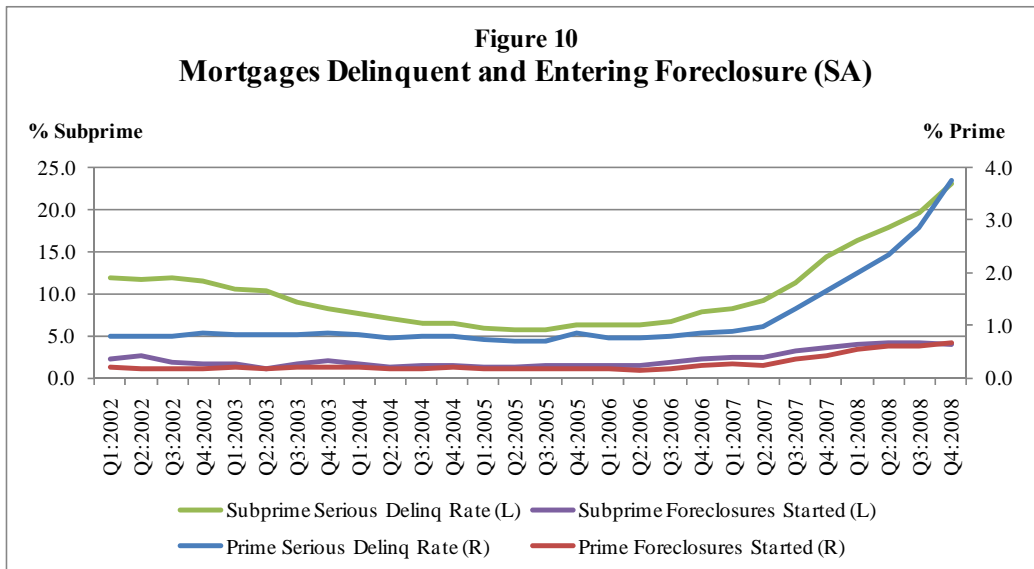
housing markets (as evidenced by price declines) led to higher unemployment, and unemployment increases put downward pressure on home prices.



Sources: Federal Housing Finance Agency and Bureau of Labor Statistics

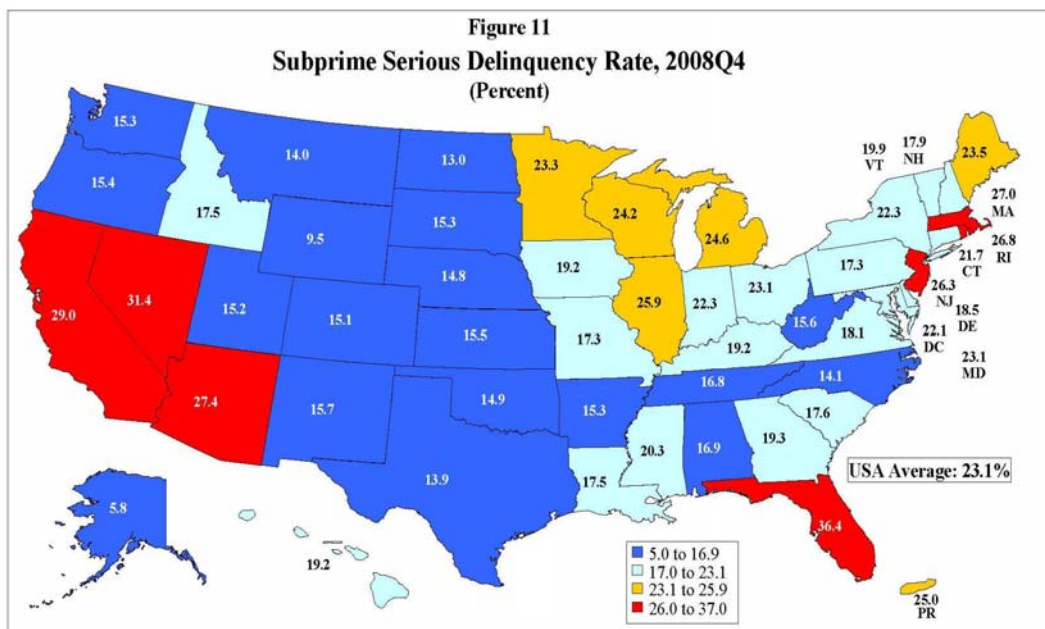
### Serious Delinquency Rates and Foreclosure Activity Rise

The significant and widespread home price declines both caused and were caused by rising single-family mortgage delinquencies and foreclosures in 2008. Delinquency and foreclosure rates accelerated throughout the year, particularly in areas where price declines were significant (see Figure 10). In the fourth quarter of 2008, 6.3 percent of single-family mortgages were seriously delinquent (90 days or more past due or in foreclosure). That rate was nearly 50 percent higher than the rate of 3.6 percent reported in the same quarter one year earlier. Deterioration in the performance of subprime loans was the primary driver of the worsening performance of the mortgage market. The serious delinquency rate for subprime mortgages increased from 14 percent in the fourth quarter of 2007 to 23 percent four quarters later, while the serious delinquency rate for prime loans rose from 1.7 percent to 3.7 percent in that period.



Source: Mortgage Bankers Association

While those figures show poor (and deteriorating) performance of single-family mortgages for the U.S. as a whole, conditions in a number of states were markedly worse than the national experience. Subprime serious delinquencies in the New England, East North Central, South Atlantic, and Pacific census divisions exceeded the national average during the fourth quarter. Florida once again recorded the highest subprime serious delinquency rate in the country, with 36 percent of subprime mortgages seriously delinquent, followed by Nevada and California at 31 percent and 29 percent, respectively. Figure 11 shows subprime serious delinquency rates by state.



Source: Mortgage Bankers Association

The share of all loans entering foreclosure increased 20 basis points over the course of 2008. Whereas 0.9 percent of mortgages entered the foreclosure process in the fourth

quarter of 2007, 1.1 percent started the process in the final quarter of 2008, nearly double the rate in the final quarter of 2006. As with delinquencies, the performance of subprime mortgages drove the overall market. Subprime loans entering the foreclosure process remained near 4 percent throughout 2008, despite periodic foreclosure moratoriums throughout the country. The rate of subprime mortgages entering foreclosure rose from 3.7 percent in the fourth quarter of 2007 to 4.3 percent in the second quarter of 2008 before declining to 4 percent in the fourth quarter (see Figure 10). A number of states were markedly worse than the national experience. According to data compiled by the Mortgage Bankers Association, foreclosure rates were at historically high levels in Michigan, California, Nevada, and Florida in the fourth quarter of 2008. The growth rate in foreclosure starts was particularly dramatic in Florida, Nevada, and California.

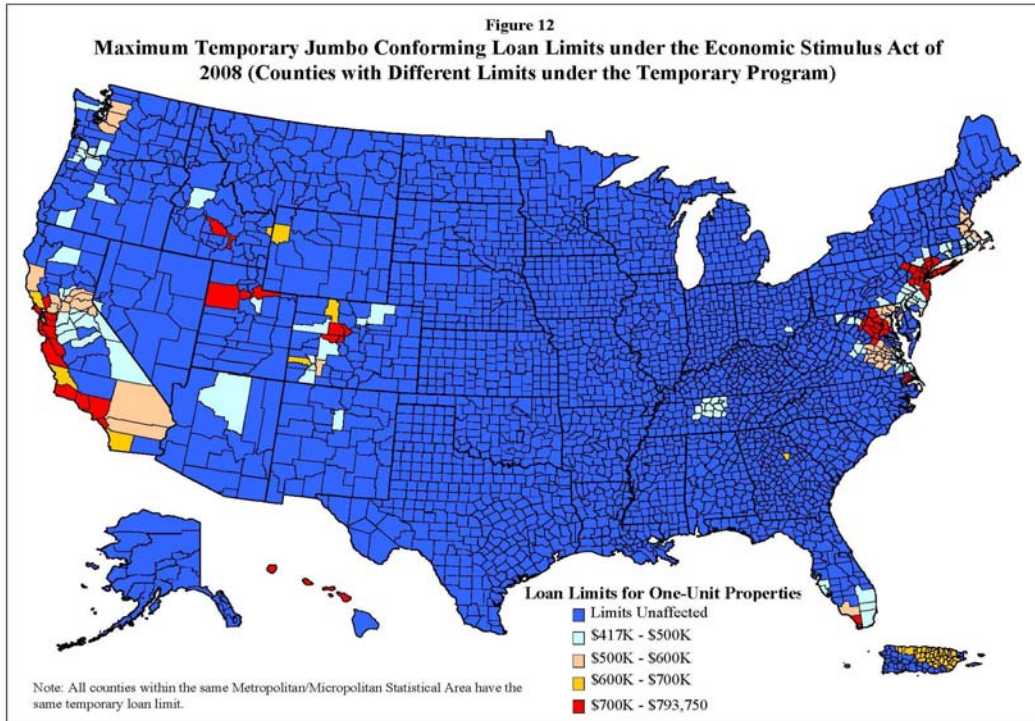
Foreclosures eased somewhat in the latter part of 2008 as the government and private entities and groups, including the Enterprises, implemented foreclosure mitigation initiatives. In the second half of the year, several major lenders—IndyMac, Countrywide, Citigroup, and JPMorgan Chase—released plans to modify a large portion of the mortgages they serviced, generally subprime and pay-option adjustable-rate mortgages. The Federal Deposit Insurance Corporation (FDIC) initiated the IndyMac program after it became conservator of that lender. In November, FHFA announced a streamlined loan modification program for borrowers whose loans are delinquent 90 days or more and have been securitized by Freddie Mac or Fannie Mae or are held in the portfolios of servicers that participate in HOPE NOW, a private alliance of servicers, counselors, and investors.

Servicers that participate in HOPE NOW completed 2.3 million workouts to prevent foreclosure in 2008, an increase of nearly 15 percent from 2007. There was a significant shift in the composition of those workouts, from repayment plans to modifications of loan terms, during the year. By December, the number of loan modifications represented more than half of all workouts completed by HOPE NOW servicers in that month.

### **Conforming Loan Limits for High-Cost Areas Change**

In an effort to lower mortgage rates, spur housing demand, and stimulate the economy, in February the Economic Stimulus Act of 2008 (ESA) was signed into law. That legislation increased the conforming loan limits in certain high-cost areas in the U.S. In 2007 and early 2008, the Enterprises had initially been constrained to buying mortgages with loan amounts of no more than \$417,000 for one-unit properties in the continental U.S. ESA raised the loan limit in high-cost areas to 125 percent of median prices, up to a maximum of \$729,750. The ESA rules had the effect of temporarily raising loan limits in more than 200 counties, with the affected areas clustered primarily in California, Florida, and parts of the Eastern Seaboard (see Figure 12).

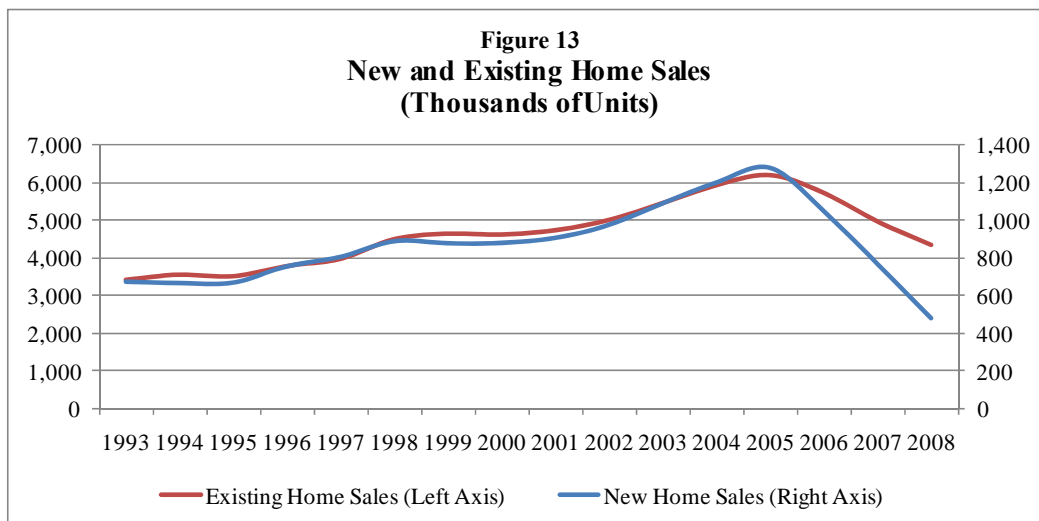




Source: Federal Housing Finance Agency

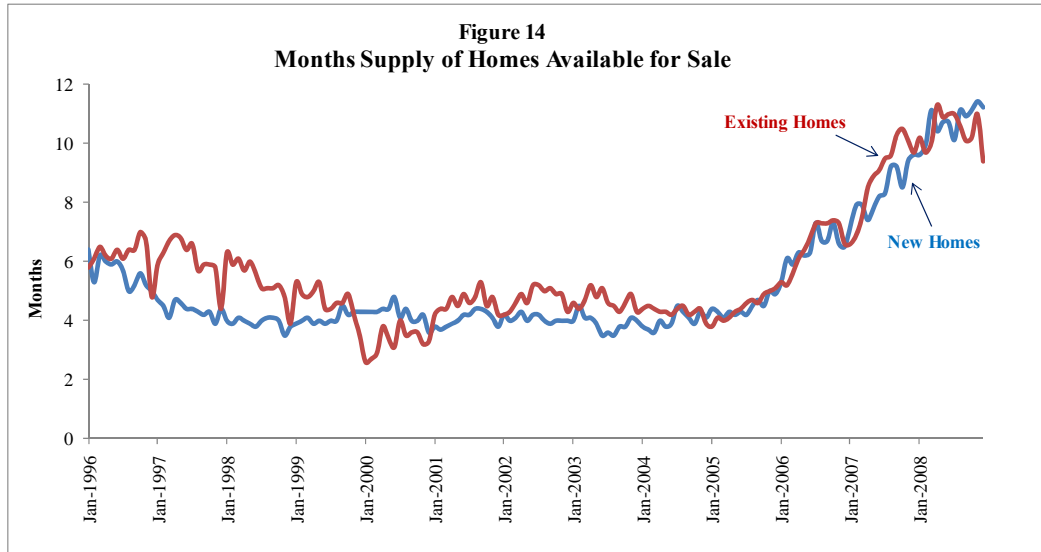
### Home Sales at Lowest Level in Years

Despite the higher loan limits, the significant increase in the number of foreclosure sales, and the substantial decline in home prices, the overall pace of sales for existing and new homes continued to decline in 2008. The volume of homes sold, which was already down significantly from the 2005 peak, fell further in 2008 (see Figure 13). Approximately 4.3 million existing homes were sold in the year, about 30 percent below the 2005 peak rate. New home sales totaled approximately 481 thousand, about 37 percent below the 2007 level and 62 percent below the peak level in 2005.



Source: U.S. Bureau of the Census (New Homes) and National Association of Realtors

Statistics published by the Bureau of the Census and the National Association of Realtors (NAR) imply that the inventory of unsold homes—a measure of the number of months needed to sell the existing stock of for-sale properties at the prevailing sales pace—was relatively constant for existing homes and rose for new homes in 2008. NAR reported that the inventory of existing homes fluctuated between about 9.4 and 11.3 months throughout the year, with December logging a somewhat anomalous 9.4 month level (see Figure 14). By contrast, Census reported that the supply of new homes rose steadily during the year, ending the year at just over eleven months, about one and a half percentage points above the January level.



Source: U.S. Bureau of the Census (New Homes) and National Association of Realtors

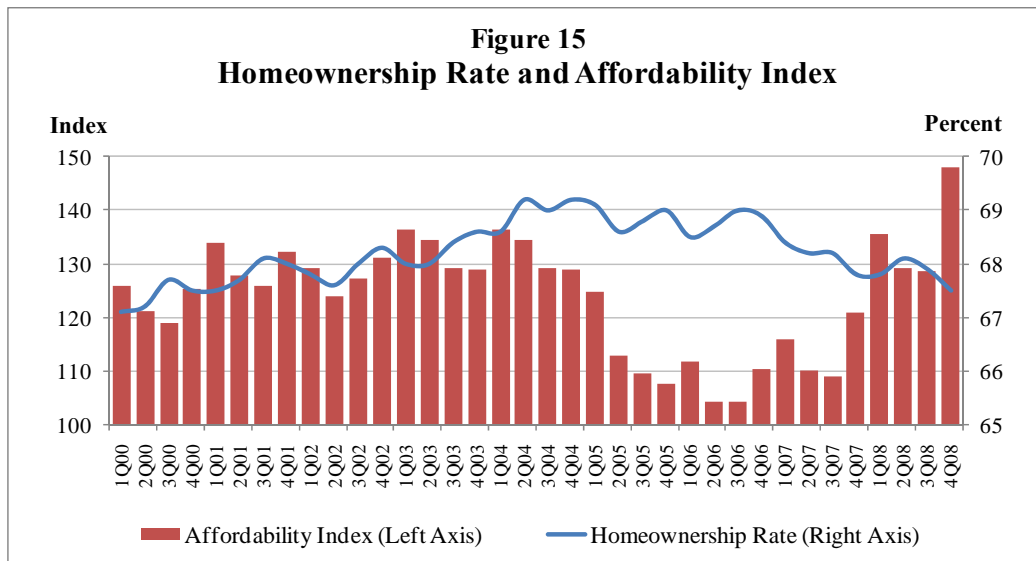
Unfortunately, the actual number of homes available for sale (and the corresponding number of months of supply) is difficult to quantify because “shadow inventory” exists. The actual number of homes available for sale can be much higher than reflected in published for-sale and relative inventory statistics, for two reasons. First, discouraged sellers often pull their homes from the market when it becomes clear that they will not obtain their desired price. Second, although homes in the foreclosure pipeline will ultimately be sold, they often only become visible as “inventory” when the bank takes possession of the property.

A great deal of anecdotal evidence suggests that “shadow inventories” were very significant and grew over the course of 2008. The magnitude of “shadow inventory” was likely greatest in states with the largest price declines and substantial foreclosure activity, such as California, Nevada, and Florida.

## Homeowner Vacancy Rate at Historic High; Homeownership Rate Drifts Downward

Between 2000 and 2005, the homeowner vacancy rate—the proportion of the homeowner inventory that is vacant for sale—averaged about 1.7 percent. However, that rate increased 70 basis points in 2006 alone, to 2.7 percent in the fourth quarter, and has inched up generally every year since, reaching 2.9 percent in the first and fourth quarters of 2008. That was the highest rate since the Census Bureau began collecting that statistic in 1956. The persistently high rate reflects both the high level of foreclosures and declining home sales.

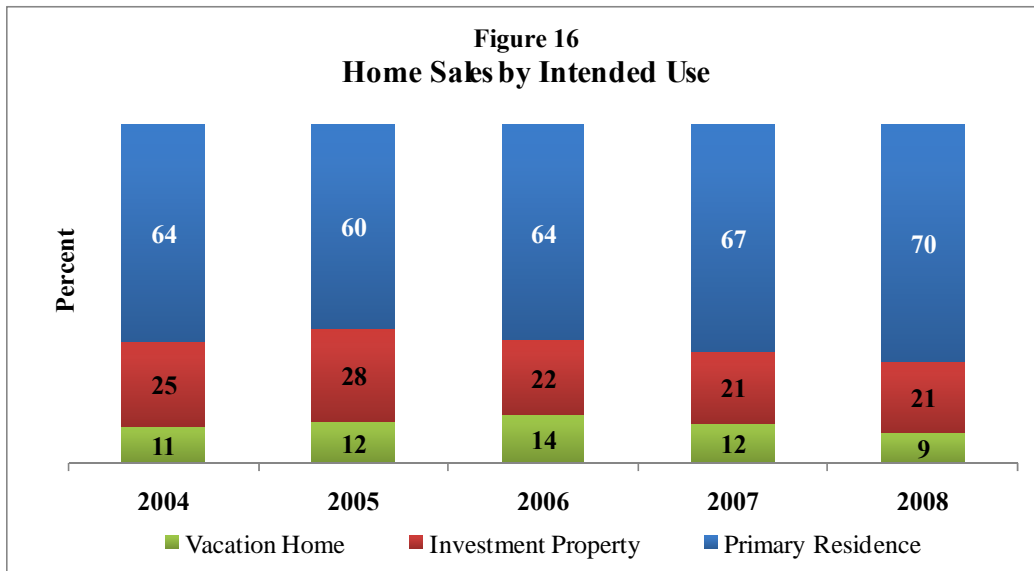
Despite improving housing affordability, the U.S. homeownership rate declined further in 2008. Since peaking at 69.2 percent (on a non-seasonally adjusted basis) in 2004, the nation’s homeownership rate has trended downward. In the first quarter of 2008, the homeownership rate was 67.8 percent. The rate drifted up slightly in the second quarter and fell to 67.5 percent in the fourth quarter, the lowest level since the first quarter of 2001 (see Figure 15). The recent decline in homeownership is most likely the result of the rising foreclosure rates and tighter mortgage credit that began in 2007.



Source: National Association of Realtors and U.S. Bureau of the Census

## Demand for Vacation Homes Falls Sharply

As estimated in an annual survey conducted by the NAR, the relative demand for vacation homes fell sharply in 2008. Only about 9 percent of 2008 house sales were for vacation homes, well below the 12 percent figure for 2007 (see Figure 16). The decline in homes sold for that use was likely the result of growing recessionary pressures and tightening mortgage credit conditions. The share of home sales that were for primary residences grew correspondingly by three percentage points. The share of investment property sales remained at 21 percent, the same proportion as in 2007.



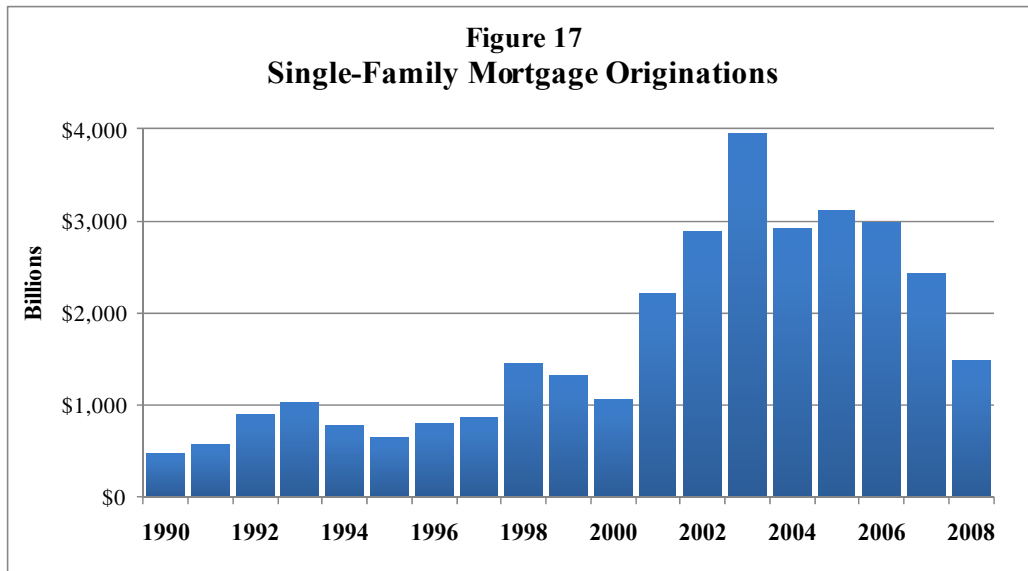
Source: National Association of Realtors

## DEVELOPMENTS IN THE PRIMARY MORTGAGE MARKET

The collapse of the subprime and Alt-A segments of the mortgage markets, tighter credit conditions, and stricter underwriting standards caused the volume of mortgages originated in 2008 to fall to the lowest level in years. Declining mortgage interest rates caused refinancings to increase. However, declining home prices reduced the housing equity of most homeowners. As a result, equity withdrawals from refinancing declined sharply in 2008. Borrowers overwhelmingly chose FRMs over ARMs, causing the adjustable-rate share of originations to plummet. Mergers and acquisitions within the financial services industry led to much larger servicing portfolios at the larger financial intermediaries. The retail channel continued to increase its share of originations, while the broker channel continued to see its market share shrink.

### Mortgage Originations Fall for the Third Consecutive Year

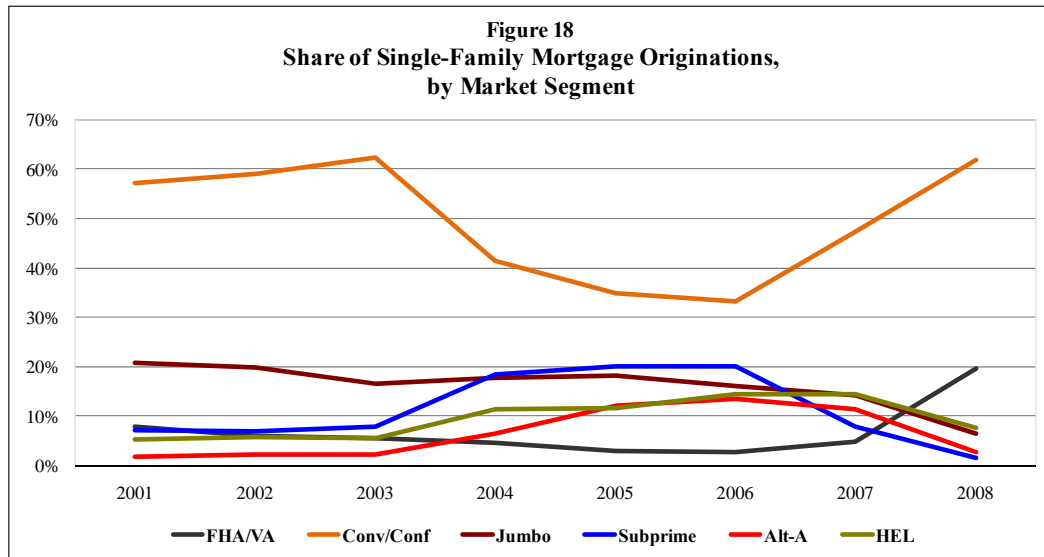
Continued falling house prices, tightening credit market conditions, and the recession contributed to a further decline in single-family mortgage lending in 2008. According to Inside Mortgage Finance Publications, originations of single-family mortgages fell 38 percent—the third consecutive annual decline—reaching an eight-year low of \$1,500 billion. That was slightly more than one-third of the record volume of single-family mortgages originated in 2003 (see Figure 17).



Source: Inside Mortgage Finance Publications

The composition of single-family mortgages originated changed significantly in 2008. Originations of conventional conforming loans—those that carry no government insurance or guarantee and meet Enterprise underwriting criteria—fell 19 percent from \$1,151 billion in 2007 to \$928 billion in 2008. However, the conventional conforming share of total single-family lending increased to 62 percent, compared with 47 percent the year before (see Figure 18). That change reflects significantly lower volumes of jumbo, subprime, and Alt-A lending. For instance, non-prime jumbo originations declined 72 percent to \$98 billion, subprime originations fell 88 percent to \$23 billion, Alt-A originations were only 15 percent of the prior year’s level of \$275 billion, and home equity loans dropped by two-thirds to \$116 billion.

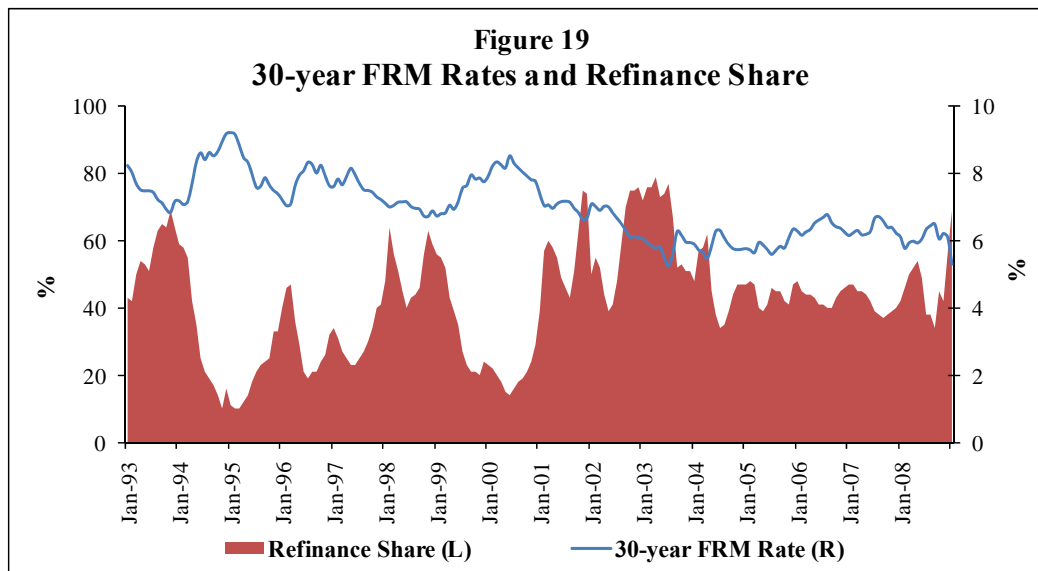
The government-insured segment of the mortgage market was the only one to show growth in 2008. Total FHA endorsements (insurance policies) increased more than threefold to \$253 billion. Those endorsements represented approximately 17 percent of single-family mortgages originated in 2008, up from 3.3 percent in 2007. An increase in the FHA loan limit, which made FHA financing available to more borrowers, was one of the factors that contributed to the increased popularity of FHA insurance. The Department of Veterans Affairs’ (VA’s) share of originations also increased. Mortgages insured or guaranteed by VA and FHA accounted for 19.5 percent of single-family mortgages originated in 2008, compared with 4.8 percent in 2007 and 2.7 percent the year before.



Source: Inside Mortgage Finance Publications

### Refinance Share of Originations Rises with Declining Mortgage Rates

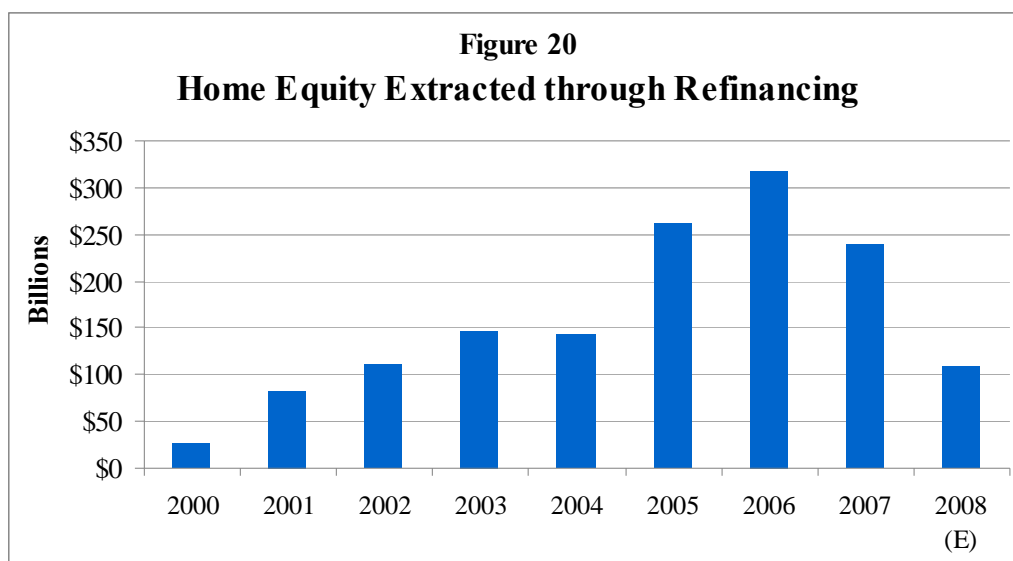
Changes in mortgage interest rates in 2008 continued to affect the share of single-family mortgages taken out to refinance existing loans. According to Freddie Mac's Primary Mortgage Market Survey (PMMS), in the first quarter of 2008 the refinance share of originations was 49 percent. That share, which varies with interest rates, increased to 56 percent in the final quarter of the year as mortgage interest rates reached historical lows (see Figure 19). For the year, refinance loans accounted for 48 percent of originations, up from 41 percent in 2007 and 43 percent in 2006.



Source: Board of Governors of the Federal Reserve System and Freddie Mac's PMMS

## Equity Extractions from Refinancing Decline

Home equity extraction generally occurs in one of three ways: home sales, home equity loans, and cash-out refinancing.<sup>1</sup> Rising home prices during the early part of the decade caused equity in homes to rise. That, in turn, paved the way for borrowers to secure funds from equity built up in their homes for use for home improvements, personal consumption expenditures, and repayment of nonmortgage debt, at relatively low cost. According to data compiled by Freddie Mac, between 2000 and 2008, homeowners extracted an estimated \$1,439 billion of equity from their homes by refinancing their mortgages. However, over the past several years, declining home prices reduced the housing equity of most homeowners. As a result, equity withdrawals from refinancing declined in 2007 and continued to drop in 2008. According to Freddie Mac, those homeowners who refinanced their mortgages in 2008 took out an estimated \$108 billion of equity. That was less than half the estimated \$239 billion of equity extracted in 2007 and about one-third the amount extracted in 2006 (see Figure 20).



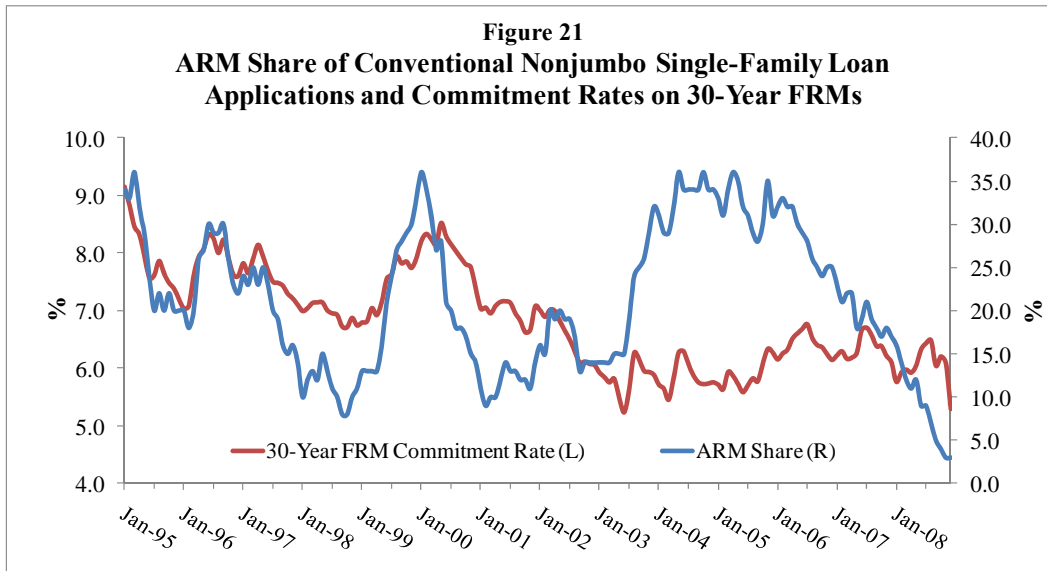
Source: Freddie Mac

## Adjustable-Rate Share of Originations Falls to Single-Digit Level

Applications for single-family mortgages with adjustable rates declined sharply in 2008. According to Freddie Mac's PMMS, single-family ARM applications dipped to three percent in November and December (see Figure 21). That was the lowest share since Freddie Mac began its survey and far below the peak months in 2005, 2004, 2000, and 1995 of 36 percent. The PMMS indicates that the ARM share of conventional non-jumbo single-family loan applications was nine percent in 2008, down from 20 percent in 2007. The drop in the ARM share in 2008 reflected the drastic decline in originations of non-traditional mortgages such as subprime and Alt-A loans, most of which carried adjustable rates. However, even homeowners who refinanced their mortgages in 2008 avoided ARMs, despite lower rates for those mortgages. The decline in the spread between the

<sup>1</sup> Cash-out refinancing refers to negotiating a new loan for a higher amount than owed on the original loan with the borrower retaining the difference.

yields of fixed- and adjustable rate mortgages—which narrowed in the fourth quarter of 2008 to the lowest level since 2000—enticed refinancing borrowers to lock-in long-term fixed rates. According to Freddie Mac, in the final quarter of 2008, 97 percent of conventional prime borrowers who originally had a conforming ARM chose a new conforming FRM when they refinanced. An estimated 85 percent of such borrowers made that election in the third quarter.

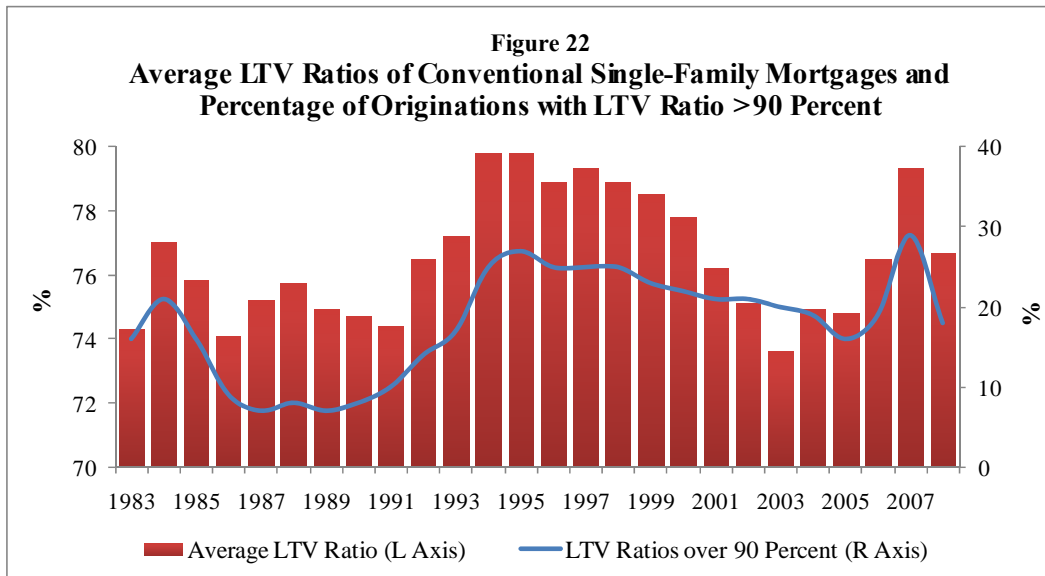


Source: Freddie Mac Primary Mortgage Market Survey

### Mix of Purchase-Money Originations Continues to Change

The credit quality of conventional fixed-rate originations improved in 2008 because of tighter underwriting standards and a sharp decline in the volume of subprime, Alt-A, and other nontraditional mortgages. Consequently, the loan-to-value (LTV) ratios of conventional fixed-rate loans improved. According to FHFA’s Monthly Interest Rate Survey (MIRS), the average LTV ratio of single-family conventional, purchase-money mortgages, which increased rapidly from 73.6 percent in 2003 to 79.3 percent in 2007, fell to 76.7 percent in 2008. The proportion of such loans with LTV ratios greater than 90 percent dropped sharply from 2007’s level of 29 percent—the highest level recorded—to 18 percent in 2008 (see Figure 22).



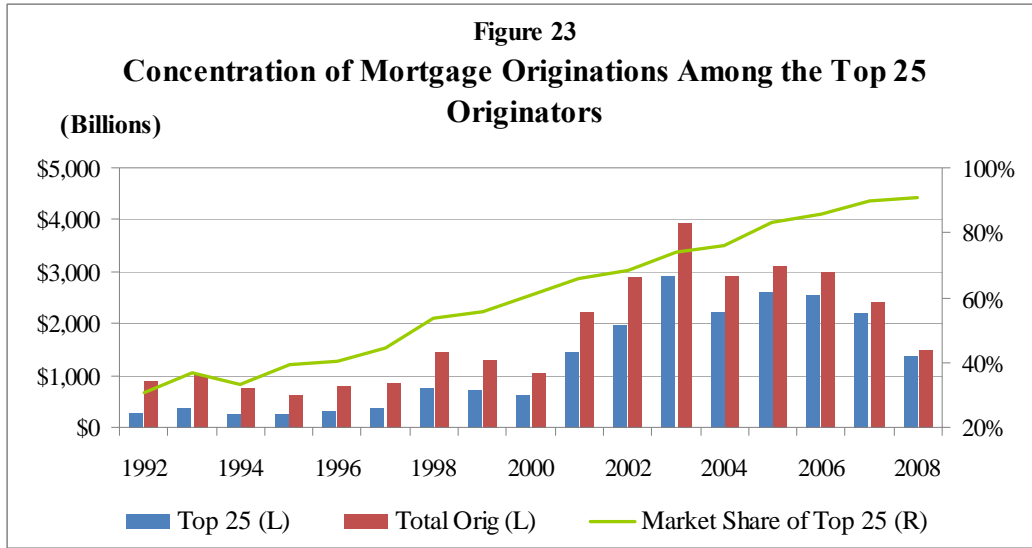


Source: Federal Housing Finance Agency

### Structure of Primary Market Changes

The year 2008 saw significant changes in the structure of the primary mortgage market. As a result of the housing crisis, several key players in the residential mortgage market failed, joined alliances with other firms, or were forced to merge with other financial institutions. For instance, Countrywide and Merrill Lynch became part of Bank of America, JPMorgan Chase acquired Bear Stearns and Washington Mutual, Lehman Brothers went bankrupt, and Wachovia was acquired by Wells Fargo. Those actions resulted in further concentration of mortgage origination and servicing activities at fewer large financial institutions.

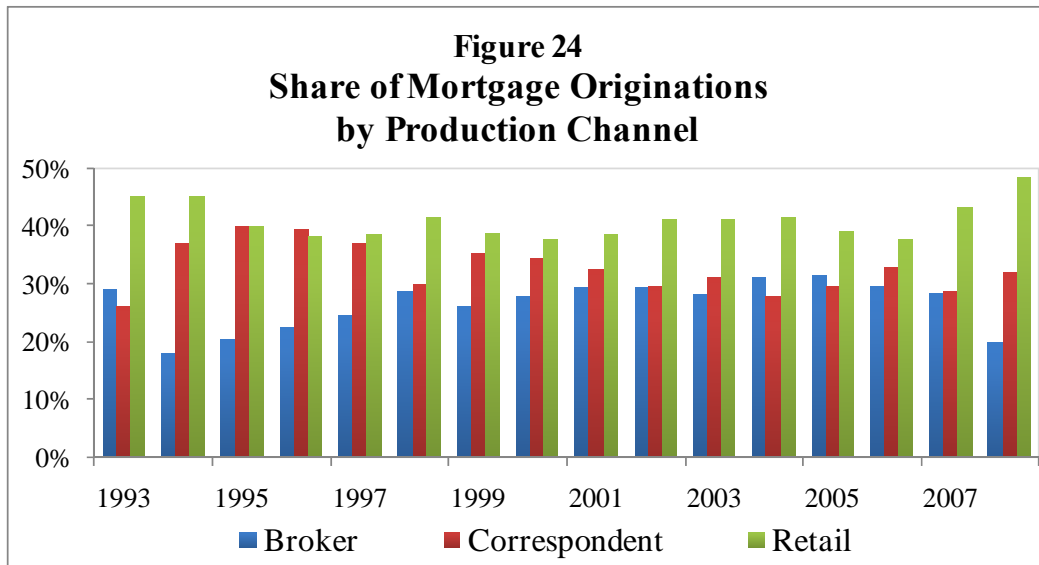
The long-running trend toward consolidation in the single-family mortgage origination business continued in 2008. According the Inside Mortgage Finance Publications, the top 25 lenders' share of all originations grew nearly a percentage point from 90 percent to 91 percent (see Figure 23). That was nearly three times the level in 1992, when the top 25 lenders accounted for only about 30 percent of all loans. However, whereas the top ten originators accounted for 72 percent of originations in both 2007 and 2008, the top five originators accounted for a much larger share of originations in 2008, 58 percent compared with 53 percent the year before.



Source: Inside Mortgage Finance Publications

The mortgage-related mergers and acquisitions in 2008 resulted in substantial increases in the servicing portfolios of certain financial institutions. That was especially true of the top five servicers. At the end of the fourth quarter of 2008, that group accounted for 59 percent of single-family mortgage servicing rights, compared to 36 percent at the end of the fourth quarter of 2007. The two top servicers at the end of 2007 saw their servicing portfolios nearly double or triple by the end of 2008. Specifically, Bank of America increased its portfolio almost four-fold to \$2,056 billion following the acquisition of Countrywide, while Chase Home Finance almost doubled its portfolio, to \$1,503 billion, following the acquisitions of Washington Mutual and Bear Stearns' EMC Mortgage business.

Changes in the origination channels of the single-family mortgage business were also pronounced in 2008. In particular, the retail channel continued to improve its market share, whereas the broker channel's position in the industry declined considerably. According to Inside Mortgage Finance Publications, the retail share of originations rose from 43 percent in 2007 to 48 percent in 2008 (see Figure 24). In wholesale or correspondent production, the share of loans acquired from correspondents (lenders that close loans in their own name and sell them) rebounded, rising to 32 percent in 2008 after falling to 29 percent the year before. However, mortgage brokers saw their share of originations fall for the third consecutive year, to 20 percent of loans originated in 2008, down from 28 percent in the prior year and the lowest share since 1994. Alleged fraud by some individual brokers during the recent mortgage lending boom and the collapse of the subprime and Alt-A markets—which resulted in the closure of many mortgage brokerage firms—contributed to the decline in activity by that group.



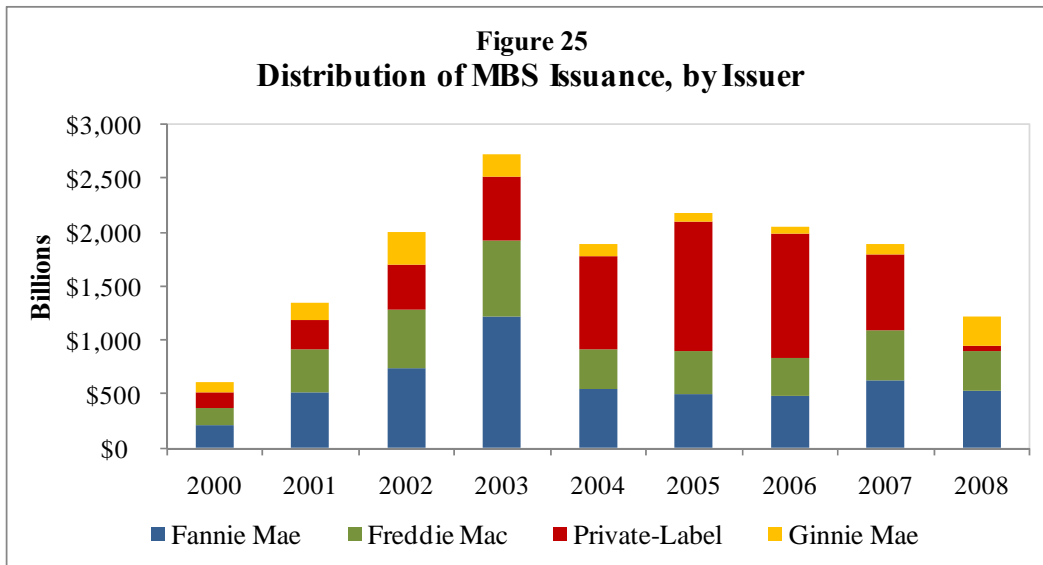
Source: Inside Mortgage Finance Publications

## SECONDARY MORTGAGE MARKET DEVELOPMENTS

Changes in the housing sector and the primary mortgage market had significant implications for mortgage securitization and the secondary mortgage market activities of Fannie Mae and Freddie Mac in 2008. Enterprise purchases of single- and multifamily mortgages fell consistent with the decline in the originations of those mortgages as credit markets tightened, lenders and the Enterprises strengthened their underwriting and the Enterprises' raised their guarantee fees. Similarly, the Enterprises' MBS issuance volume declined from the year before. However, whereas the Enterprises' strongest competition in the MBS market had historically come from private-label issuers, private-label activity came to a virtual standstill in 2008 and Ginnie Mae MBS emerged as the Enterprises' strongest competition, capturing significant market share.

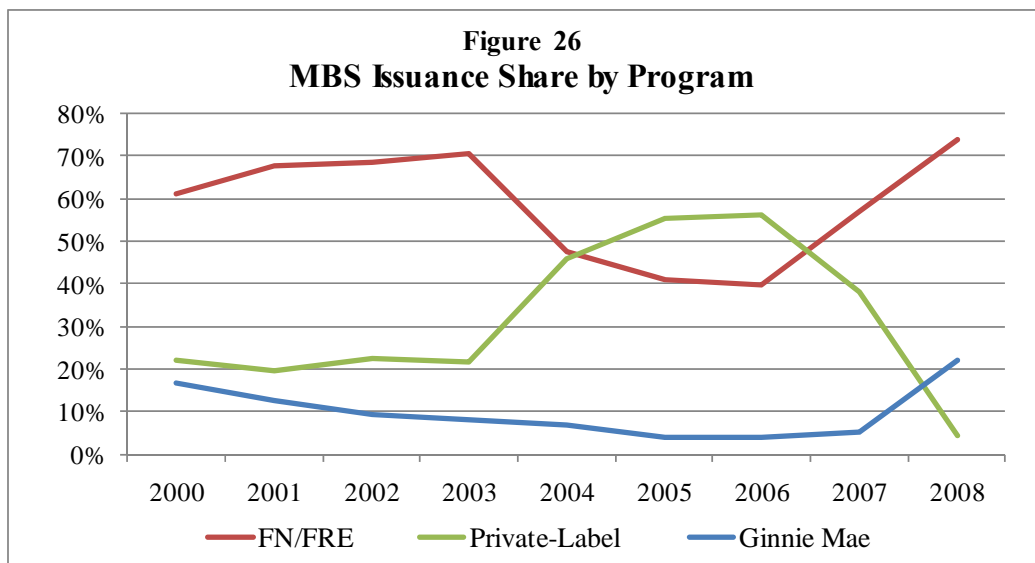
### MBS Issuance Declines; the Enterprises and Ginnie Mae Dominate Activity

The volume of U.S. mortgage-backed securities backed by single-family mortgages issued in 2008 dropped by 36 percent to \$1,224 billion, the lowest level since 2000 (see Figure 25). The bulk of that decline is attributed to the near shut-down of private-label securitization following the collapse of the subprime and Alt-A sectors. Private-label issuances totaled a mere \$58 billion, just 8 percent of 2007's level of \$707 billion and a mere 5 percent of the \$1,191 billion volume in 2005. Ginnie Mae issuances increased almost three-fold to a record \$266 billion on a record-setting volume of FHA mortgage endorsements. Issuances at both Fannie Mae and Freddie Mac fell significantly. The Enterprises' combined single-family MBS issuance declined 18 percent to \$900 billion.



Sources: Inside Mortgage Finance Publications and Federal Housing Finance Agency

After losing market share to private-label issuers in 2005 and 2006, the Enterprises resumed their role as the nation’s leading mortgage securitizers in 2007. Fannie Mae and Freddie Mac solidified that position in 2008 by accounting for 73 percent of MBS issued by U.S. firms (see Figure 26).



Source: Inside Mortgage Finance Publications

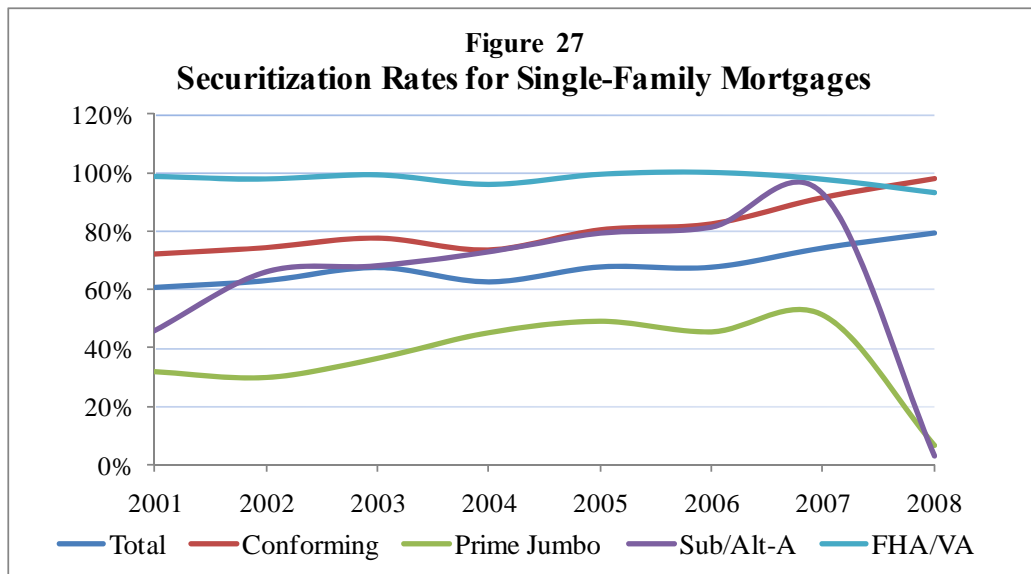
In addition to issuing fewer single-class MBS in 2008, both Fannie Mae and Freddie Mac issued fewer multiclass securities, mostly Real Estate Mortgage Investment Conduits (REMICs), as investors’ appetites for those instruments waned. Fannie Mae showed a decline in its multiclass issuances of 40 percent to \$68 billion, while Freddie Mac issuance decreased by more than one-half to \$64 billion.

## Alternative to Securitization Explored

The liquidity crisis in U.S. mortgage markets—sparked by the demise of subprime mortgage lending and the near collapse of private-label securitization—in addition to capital and other issues at Fannie Mae and Freddie Mac that eventually led to the conservatorships, brought into question the future of mortgage securitization in the U.S. and spurred interest in developing a new source of mortgage financing and an alternative to mortgage securitization. Regulators, legislators, mortgage lenders, and others began to look at covered bonds as a potential alternative to private-label mortgage securitization. Proponents of covered bonds believe that those instruments can improve liquidity in the residential mortgage market and help depository institutions strengthen their balance sheets by diversifying their funding sources (see Box A).

## Mortgage Securitization Rates Climb to Record Levels

Despite turbulence in the U.S. housing and mortgage markets and losses on MBS, especially private-label MBS, the demand for high-quality securities backed by mortgages was generally strong in 2008. According to Inside Mortgage Finance Publications, of the \$1.5 trillion of mortgages originated in 2008, 79 percent were packaged into mortgage securities and sold to investors. That compared to a securitization rate of 74 percent the year before and 61 percent in 2001. The securitization rate was highest for conforming mortgages, followed by FHA/VA loans. However, investors mostly shunned private-label securities in 2008. The securitization rate for subprime and Alt-A mortgages combined plunged to a mere 3 percent, compared to 93 percent just one year earlier. The securitization rate for prime jumbo mortgages was down sharply as well (see Figure 27).



Source: Inside Mortgage Finance Publications

**Box A:**  
**Covered Bonds: An Alternative to Private-Label Mortgage Securitization?**

Covered bonds are debt instruments secured by perfected security interests in a specific pool of collateral such as mortgages or public sector loans. Germany introduced covered bonds over 200 years ago to finance public works and other long-term projects. Other European nations, including France and the United Kingdom, have established significant covered bond programs. The most active covered bond markets have enacted specific covered bond legislation that governs the type of assets that can be used to secure the covered bonds and how those assets should be segregated.

Covered bonds are different from the private-label mortgage-backed securities (PMBS) issued in the United States. The most significant difference is the dual source of repayment of investors' investments in those bonds. Specifically, covered bonds are intended to be paid from the general cash flows of the financial institution and not from the pledged collateral. In addition, in the event of a failed payment due to the insolvency of the financial institution, investors can receive payment on their covered bonds from the pool of residential mortgage loans. For U.S. PMBS, investors have recourse to the underlying mortgage assets only, although third-party credit support for some tranches may exist. The table below summarizes some of the most significant differences between covered bonds and their U.S. PMBS counterparts.

**Comparison of European Covered Bonds and  
U.S. Private-Label Mortgage-Backed Securities**

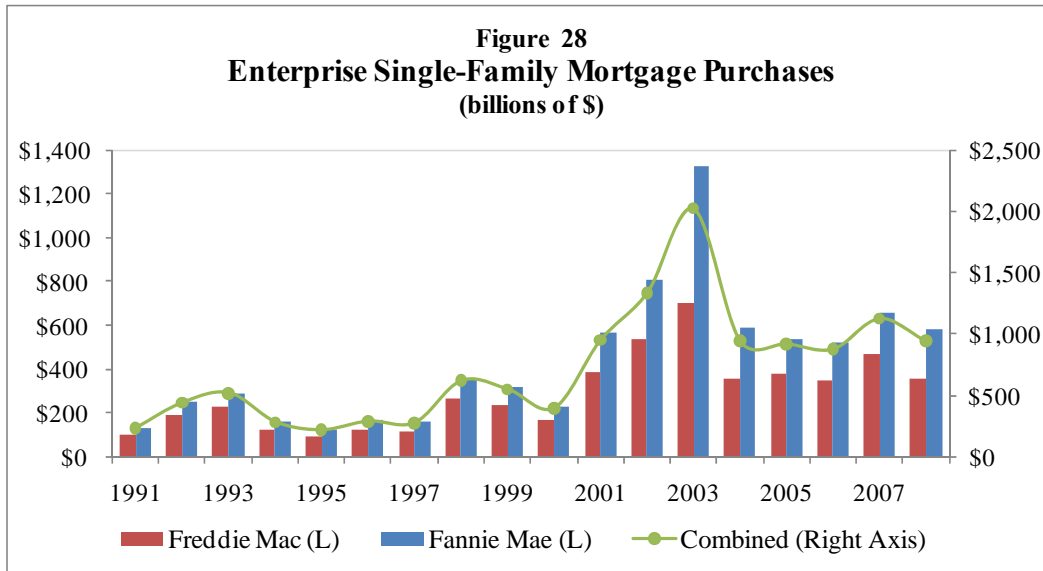
Factor	European Covered Bonds	U.S. Residential PMBS
<b>Investor recourse</b>	Investors can look primarily to the issuing bank for repayment and also to the collateral pool.	For private-label securities, investors have recourse to the underlying mortgage assets only.
<b>Accounting treatment</b>	The underlying loans of the cover pool stay on the issuer's balance sheet—along with the credit and prepayment risk on those loans.	PMBS are placed in off-balance sheet trusts—associated risks transfer at time of securitization to the investor.
<b>Management of underlying pool of loans</b>	Pools of loans securing covered bonds are dynamic—non-performing or prepaying loans must be substituted out of the cover pool.	Most collateral pools are static and substitution is restricted.
<b>Maturities</b>	Bonds are generally issued as fixed-rate securities repayable in one bullet installment with maturities ranging from one to ten years.	PMBS amortize as the underlying mortgages pay down.
<b>Certainty of cash flows</b>	Investors earn rate specified	Investors bear risk of prepayment.
<b>Priority</b>	Covered bonds are issued in series and are ranked pari passu. There is no priority among them.	Securities are issued in the form of tranches. Investors in some tranches may have higher rankings.

Covered bonds are relatively new in the United States. Washington Mutual launched a €20 billion covered bond program in September 2006. Bank of America followed that bank's entrance into the covered bond market. Unlike Washington Mutual, Bank of America issued both Euro- and U.S. dollar-denominated covered bonds.

The desire to develop an alternative to private-label mortgage securitization prompted the Federal Deposit Insurance Corporation in July 2008 to issue a policy statement on covered bonds detailing how those bonds would be treated if an insured depository institution failed. The Department of the Treasury followed with a Best Practices statement for covered bonds. Covered bond legislation was also introduced last year.

## Enterprises' Purchase Volume Declines

Following the pattern in single-family mortgages originated in 2008, both Fannie Mae and Freddie Mac reduced their purchases of single-family loans. Combined purchases by the Enterprises of single-family mortgages declined 16.4 percent in 2008 to \$941 billion, down from \$1,125 billion in 2007 (see Figure 28). Freddie Mac's purchases totaled \$358 billion in 2008, down 23 percent from 2007, while Fannie Mae's purchases were \$583 billion, down 12 percent. Weak housing markets, more stringent underwriting standards at the Enterprises, and increases in their guarantee fees contributed to the decline in acquisition volume (see Box B).



Source: Fannie Mae and Freddie Mac

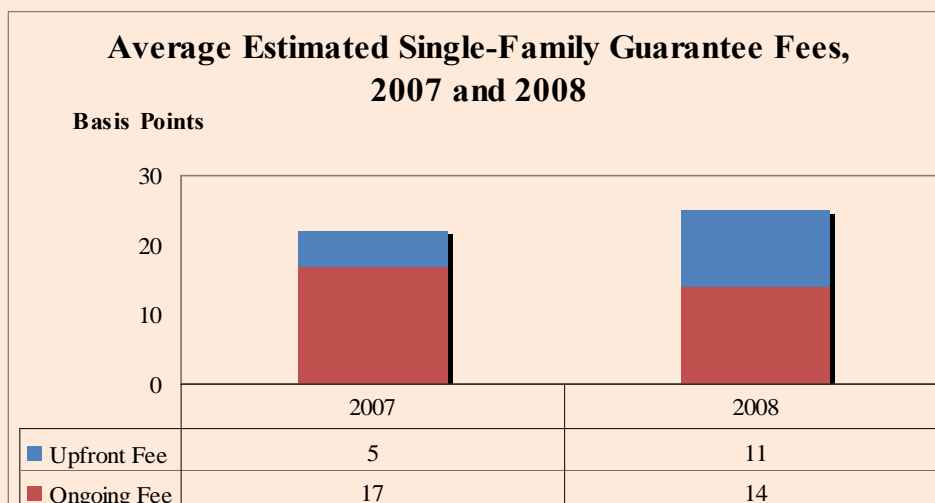
Combined purchases of new and refinanced multifamily mortgages by Fannie Mae and Freddie Mac declined by 13 percent in 2008 to \$58 billion from \$67 billion the year before. After doubling its multifamily mortgage purchases in 2007, Fannie Mae purchased \$34 billion in multifamily loans in 2008, down 24 percent from the year before (see Figure 29). In contrast, Freddie Mac purchases increased 11 percent in 2008, to \$24 billion.

**Box B:**  
**Changes in Enterprise Guarantee Fee Pricing in 2008**

Credit losses on single-family mortgages were at historic lows when house price appreciation accelerated rapidly in 2002 through 2005. However, it has become clear that the industry as a whole underpriced mortgage credit risk significantly in those years as well as in 2006 and 2007. Fannie Mae and Freddie Mac started to correct that underpricing in 2008 with guarantee fee increases first announced in late 2007 and implemented in early 2008.

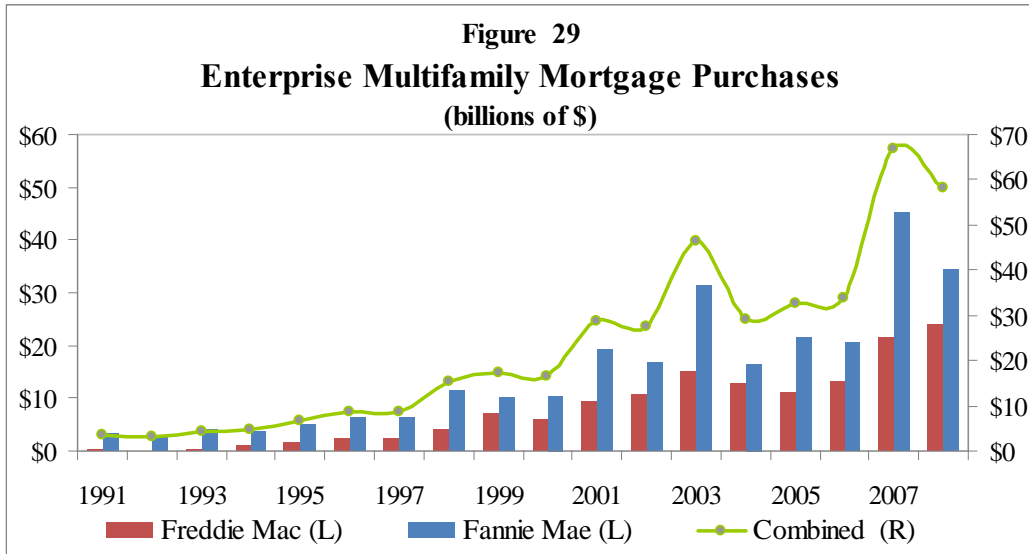
In the fourth quarter of 2007, each Enterprise announced an upfront adverse market charge of 25 basis points (about 6 basis points annualized) for all loan acquisitions beginning in March 2008. That charge was intended to protect against the heightened credit risk posed by deteriorating housing market conditions. Also in March, each Enterprise introduced varied upfront fees based on loan-to-value (LTV) ratios and credit scores. Later in 2008, the Enterprises updated those fees in response to their views of worsening forecasted house price trends and higher forecasted credit losses. The new or changed pricing affected cash-out refinance mortgages, investor-owned properties, multiple-unit properties, loans with subordinate financing, condominiums, and jumbo conforming mortgages, among other categories.

The effect of those pricing increases on the average single-family guarantee fees charged by the Enterprises in 2008 was muted by a better mix of business—proportionally more 15-year fixed-rate mortgages, more loans with low LTV ratios and high credit scores, and fewer loans with “risk layering” (two or more features that increase credit risk, such as interest-only payments or the presence of subordinate financing). Overall, the average total guarantee fee charged by the Enterprises (based on a sample of over three-quarters of total loans acquired) increased from 22 basis points in 2007 to 25 basis points in 2008. The ongoing fee declined 3 basis points, from 17 basis points to 14 basis points, mainly due to a change in the acquisition mix, rather than a reduction in contract prices. The upfront fee (expressed as an annualized ongoing fee equivalent) rose 6 basis points, from 5 to 11 basis points.



Source: Federal Housing Finance Agency based on Fannie Mae and Freddie Mac data





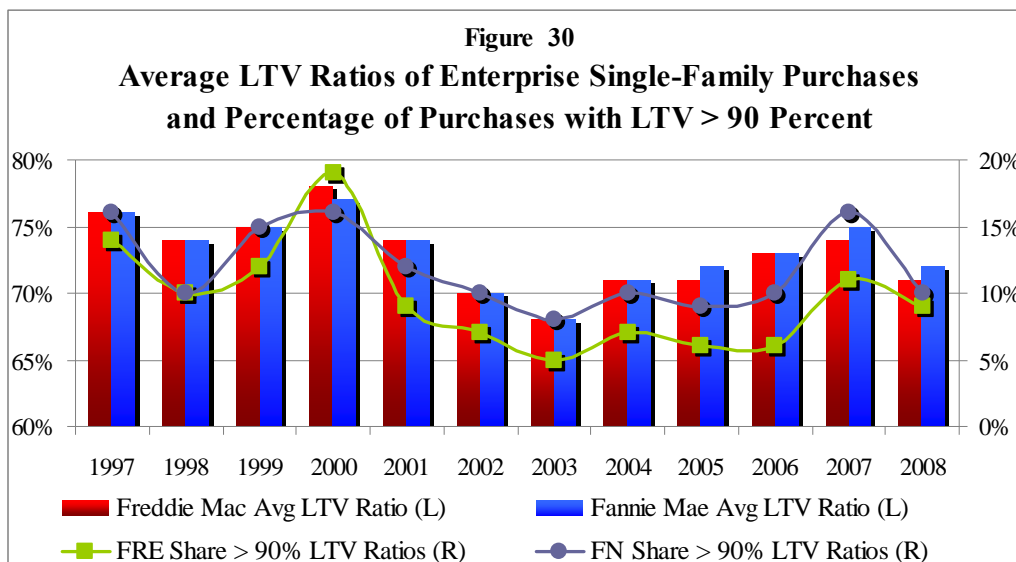
Source: Fannie Mae and Freddie Mac

### Credit Risk Characteristics of Enterprise Purchases Improve

Fannie Mae and Freddie Mac begin tightening their underwriting standards in the second half of 2007. As a result, the credit risk characteristics of the single-family mortgages purchased by the Enterprises in 2008 improved over the course of the year. LTV ratios declined, borrower credit scores increased, the refinance share of purchases rose, and the cash-out share of refinance purchases fell.

The weighted average LTV ratio of loans purchased by Freddie Mac decreased to 71 percent in 2008 from 74 percent in 2007, while the weighted average LTV ratio for Fannie Mae acquisitions fell to 72 percent from 75 percent (see Figure 30). The proportion of loans purchased with high LTV ratios fell at both Enterprises. After rising to 16 percent in 2007, the proportion of loans with greater than 90 percent LTV ratios purchased by Fannie Mae fell to 10 percent in 2008. The proportion for Freddie Mac in 2008 was 9 percent, down from 11 percent the year before.

In addition to improved LTV ratios, single-family mortgages purchased by both Fannie Mae and Freddie Mac in 2008 also had better Fair, Isaac and Company (FICO) credit scores. The weighted average FICO score for all mortgages purchased by Fannie Mae in 2008 improved to 738 from 716 in 2007. The share of that Enterprise's purchases with FICO scores below 620 decreased by one-half, to three percent from six percent the previous year. The weighted average FICO score for Freddie Mac's purchases improved to 734 compared to 718 in 2007. Similar to Fannie Mae, the share of that Enterprise's purchases with FICO scores below 620 fell from six percent in 2007 to three percent in 2008.



Source: Fannie Mae and Freddie Mac

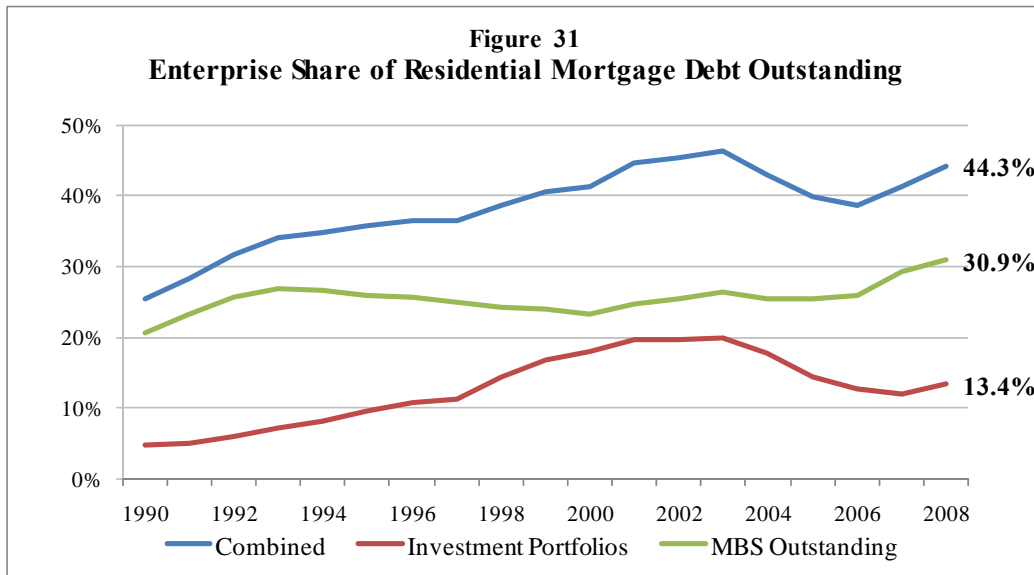
Lower interest rates resulted in a higher volume of refinanced mortgages originated in 2008, and the Enterprises' mortgage purchases reflected that change. The share of mortgages purchased by the Enterprises representing purchase transactions declined, while the refinance share rose. Tighter underwriting, falling housing prices, and changes in guarantee fee pricing reduced the cash-out share of refinance purchases as well. Fannie Mae's refinance share of purchases increased to 59 percent, up from 50 percent in 2007. Cash-out refinancings accounted for 53 percent of the Enterprise's mortgage purchases, compared to 64 percent the year before. Freddie Mac's refinance share of purchases also rose to 59 percent from 53 percent the year before. Cash-out refinancings accounted 53 percent of that Enterprise's total refinance mortgages purchased in 2008, compared to 60 percent the year before. The decline in the cash-out shares reflects the decline in borrower home equity as a result of falling home prices. Refinance mortgages tend to be of higher credit quality than purchase loans.

### **Mortgage Debt Outstanding Declines; Enterprises' Share Rises to Highest Level in Years**

After increasing at double-digit rates during the early part of the decade, the amount of residential mortgage debt outstanding declined in 2008, albeit slightly, for the first time since the Federal Reserve began tracking that data in 1945. Residential mortgage debt outstanding fell less than one percent to \$11.9 trillion. The lower volume of mortgage originations and the high level of mortgage foreclosures and write-offs contributed to the decline. Despite the drop in mortgage debt outstanding, however, that debt remained at a high level and equaled 84 percent of GDP last year, the third-highest level ever after 2006 and 2007.

Each Enterprise's total mortgage book of business—mortgage assets held for investment plus MBS held by others—grew in 2008, albeit at a much slower pace than in 2007. Fannie Mae grew its total book of business by 7.6 percent to \$3.1 trillion, as compared with 13.5 percent the previous year. Freddie Mac's total book of business grew 2.9

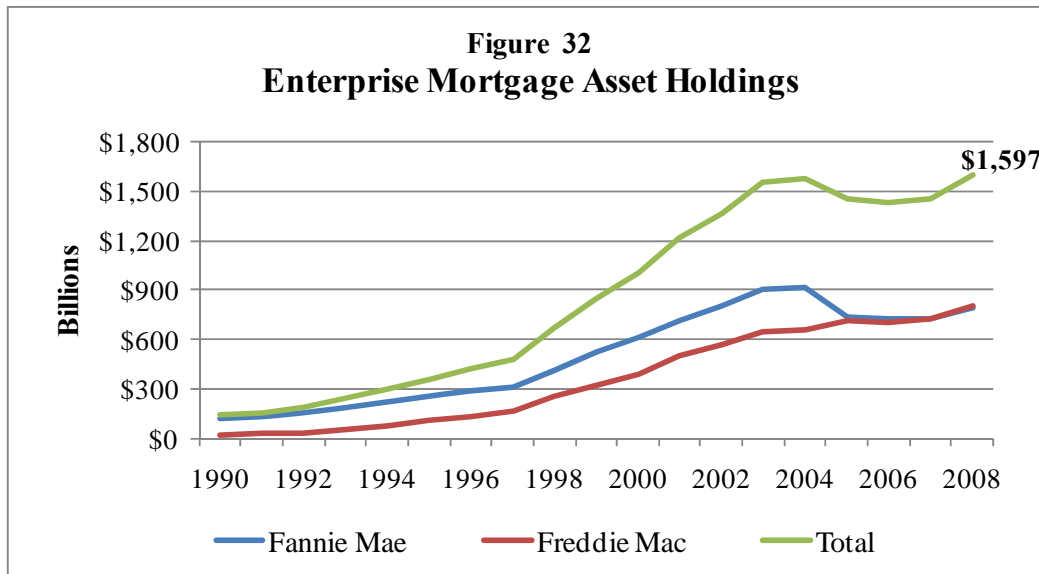
percent to \$2.2 trillion, as compared with 14.8 percent in 2007. Notwithstanding their slower growth, the Enterprises' share of the total mortgage market increased in 2008. Fannie Mae and Freddie Mac ended the year holding and guaranteeing the highest level of the nation's outstanding residential mortgage debt since 2003, 44.3 percent (see Figure 31).



Source: Federal Housing Finance Agency

### Enterprises Increase Holdings of Mortgage Assets

The Office of Federal Housing Enterprise Oversight (OFHEO), a predecessor to FHFA, lifted limits on the total dollar amount of mortgage assets the Enterprises could hold effective at the end of the first quarter of 2008, as they became timely in filing their financial statements. The lifting of the limits and the partial relaxation of capital surcharges (combined with Enterprise commitments to raise additional capital) before and the suspension of all regulatory capital requirements following the conservatorships allowed additional growth in the Enterprises' mortgage asset investments. The SPAs with the Treasury also included a retained portfolio cap of \$850 billion that allowed modest growth in mortgage asset investments through 2009. Both Enterprises grew those investments at a faster pace than in the recent past. Fannie Mae had not grown its holdings of mortgage assets since 2004, whereas Freddie Mac's holdings of mortgage assets had not shown any appreciable growth since 2005, due to the caps on growth of their mortgage assets agreed to in 2006. At year's end their combined holdings of mortgage assets totaled \$1,597 billion (UPB), the highest level ever (see Figure 32).

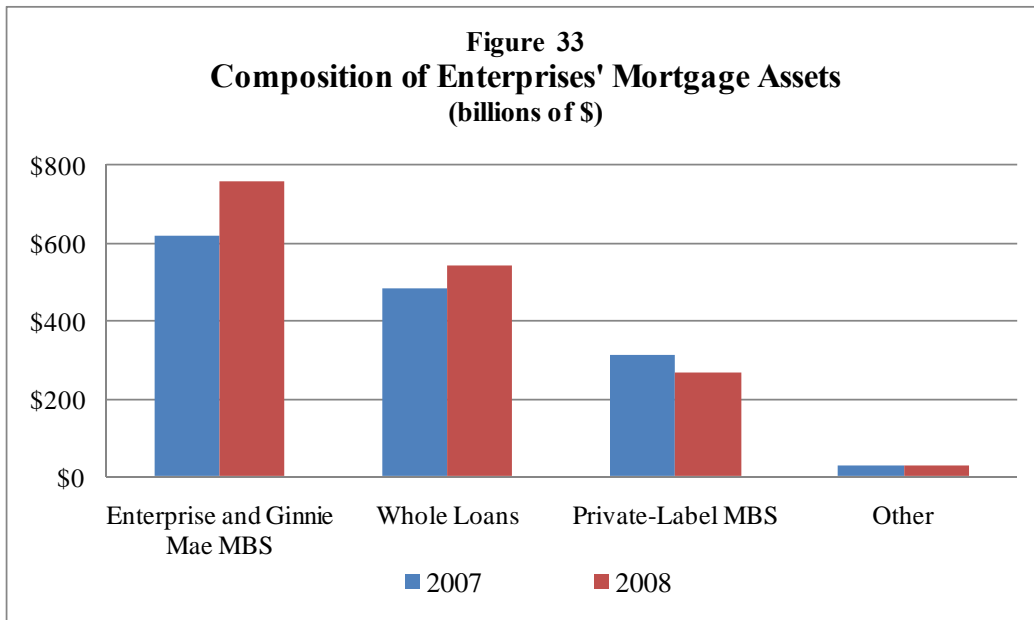


Source: Fannie Mae and Freddie Mac

There was a slight change in the composition of the mortgage assets held by Fannie Mae and Freddie Mac in 2008. Enterprise and Ginnie Mae MBS comprised a greater share of the Enterprises' mortgage asset holdings in 2008, \$759 billion of unpaid principal balance (UPB) or 48 percent compared to 43 percent the previous year (see Figure 33). Both Enterprises, but especially Freddie Mac, made large purchases of their own securities in the second and fourth quarters. Freddie Mac purchased \$219 billion of its MBS in 2008 compared to \$141 the year before, while Fannie Mae purchased \$68 billion of its securities compared to \$25 billion the year before.

Both Enterprises increased their holdings of whole loans, which on a combined basis rose to \$541 billion (UPB), an increase of 11 percent. As a share of total mortgage investments whole loans held constant at 34 percent. Freddie Mac increased its holdings of whole loans by \$29 billion to \$111 billion (UPB). At year's end, whole loans accounted for 14 percent of the Enterprise's total mortgage assets' UPB, compared to 11 percent the year before. That was the highest dollar volume of whole loans held by Freddie Mac ever and the largest share since 2000. While Fannie Mae continued to hold a very large volume of whole loans, the relative share of those assets fell slightly in 2008 to 54 percent of its total mortgage assets' UPB, compared to 55 percent the year before.

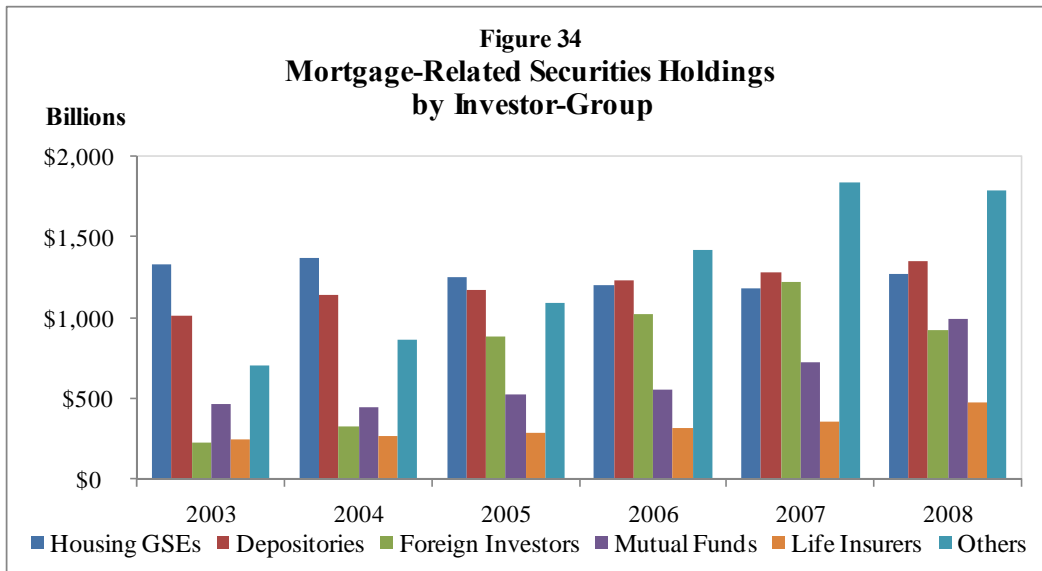
Private-label securities, the third largest class of assets held by the Enterprises, declined 14 percent on a combined basis in 2008. Freddie Mac reduced its holdings by 15 percent, while Fannie Mae reduced its holding by 12 percent.



Source: Fannie Mae and Freddie Mac

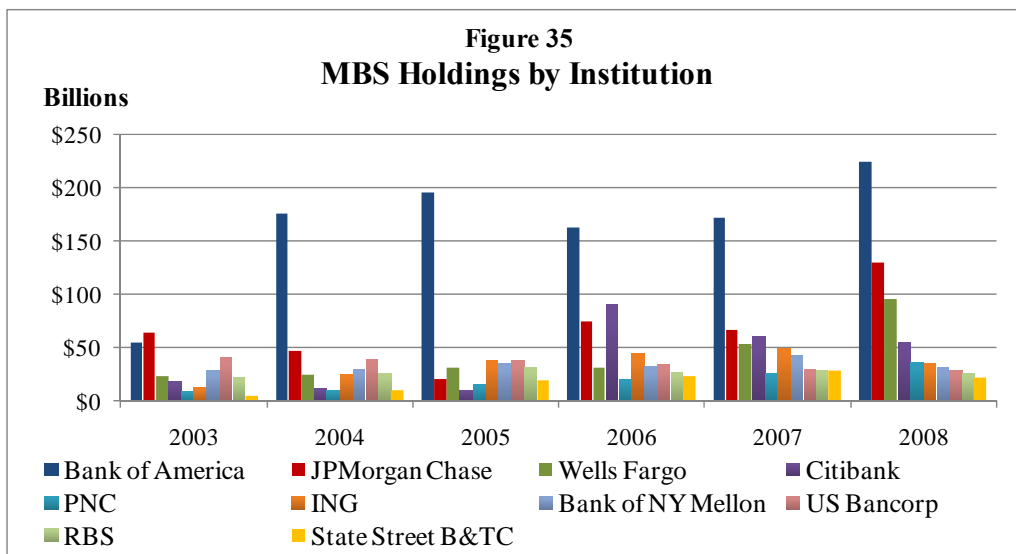
### Foreign Investors Reduce MBS Holdings

Notwithstanding the decline in mortgage securitization in 2008, outstanding MBS issued by U.S. firms increased 3 percent to \$6.8 trillion. However, that was the smallest increase on record. In addition to slower growth of outstanding MBS, 2008 saw a shift in the holdings of those securities by certain investor groups. Since 2000, the share held by foreign investors—a category that includes private firms and foreign central banks—had increased three-fold to over 18 percent. That trend came to an abrupt stop in 2008 as MBS held by foreign investors declined, especially during the second half of the year, to a share of 14 percent at year's end (see Figure 34). That was lower than the combined shares of the housing GSEs of 19 percent. Depository institutions were the largest single-group holders of MBS with a share of 20 percent at the end of 2008, slightly higher than the prior year's level. Holdings by other investors—a category that includes hedge funds, nonprofits, and other groups for which detailed data are not available—declined to 29 percent from 30 percent the year before. Mutual funds showed the biggest gain in MBS holdings, rising 38 percent to \$995 billion. That translated into a market share of 15 percent, up from 11 percent the year before.



### Large Banks Increase Their Holdings of MBS

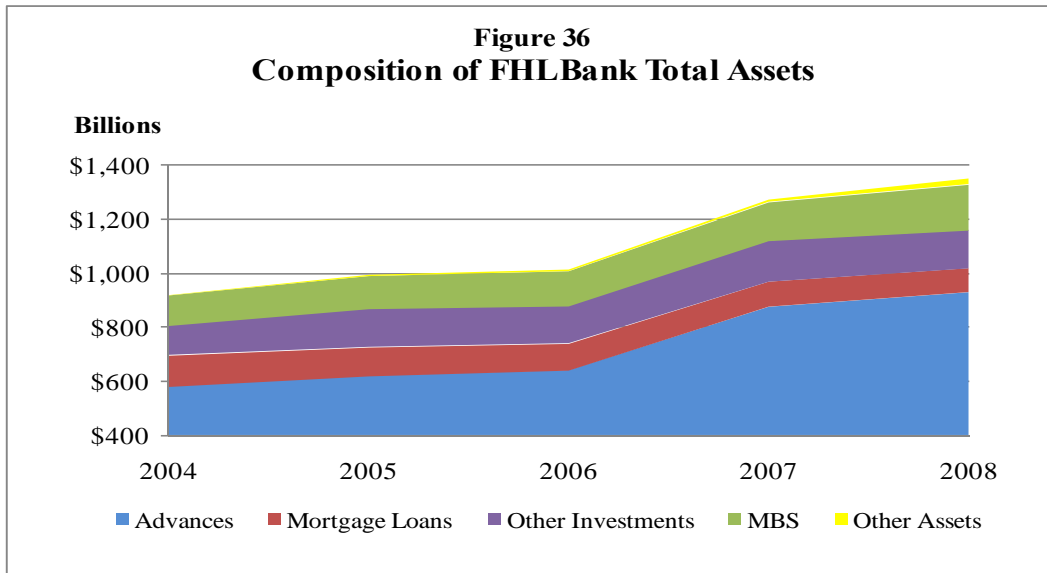
Increased MBS holdings of large banks contributed to the larger share of MBS held by depository institutions in 2008. According to data compiled by the FDIC, large banks—especially Bank of America and JPMorgan Chase—significantly increased their holdings of MBS (see Figure 35). However, most of that increase came as a result of acquisitions of other financial intermediaries that also held sizable MBS investments. For instance, JPMorgan Chase’s increased MBS holdings reflect, in part, the acquisitions of Bear Stearns and Washington Mutual, and Bank of America’s the acquisition of Countrywide.



## Federal Home Loan Banks Continue to Support Mortgage Lending

To help restore liquidity to the secondary mortgage market, in March 2008 the Federal Housing Finance Board, a predecessor to FHFA, authorized the FHLBanks to increase temporarily their holdings of MBS from 300 to 600 percent of capital. Holdings of MBS above 300 percent of capital were restricted to MBS guaranteed by the Enterprises or Ginnie Mae. At year-end, the FHLBanks held \$96 billion of agency MBS, up from \$55 billion one year earlier. The FHLBanks also held \$73 billion of private-label MBS at the end of 2008. In all, those institutions increased their holdings of MBS 18 percent from the previous year-end.

The FHLBanks continued to be a major source of liquidity to their member financial institutions and, thereby, the primary mortgage market in 2008. Advances outstanding reached an all-time high of \$1,012 billion in the third quarter but contracted in the fourth quarter as member institutions drew on other funding sources. Demand for long-term debt issued by the housing GSEs declined and the yields on consolidated obligations issued by the FHLBanks increased, making advances a less attractive source of funding for members. At the end of 2008, FHLBank advances outstanding totaled \$929 billion (69 percent of total assets), up 6 percent from the end of 2007 and 45 percent from the end of 2006 (see Figure 36).



Source: Federal Home Loan Banks Office of Finance