

Perspectives on the Housing Market and the Emergency Economic Stabilization Act of 2008

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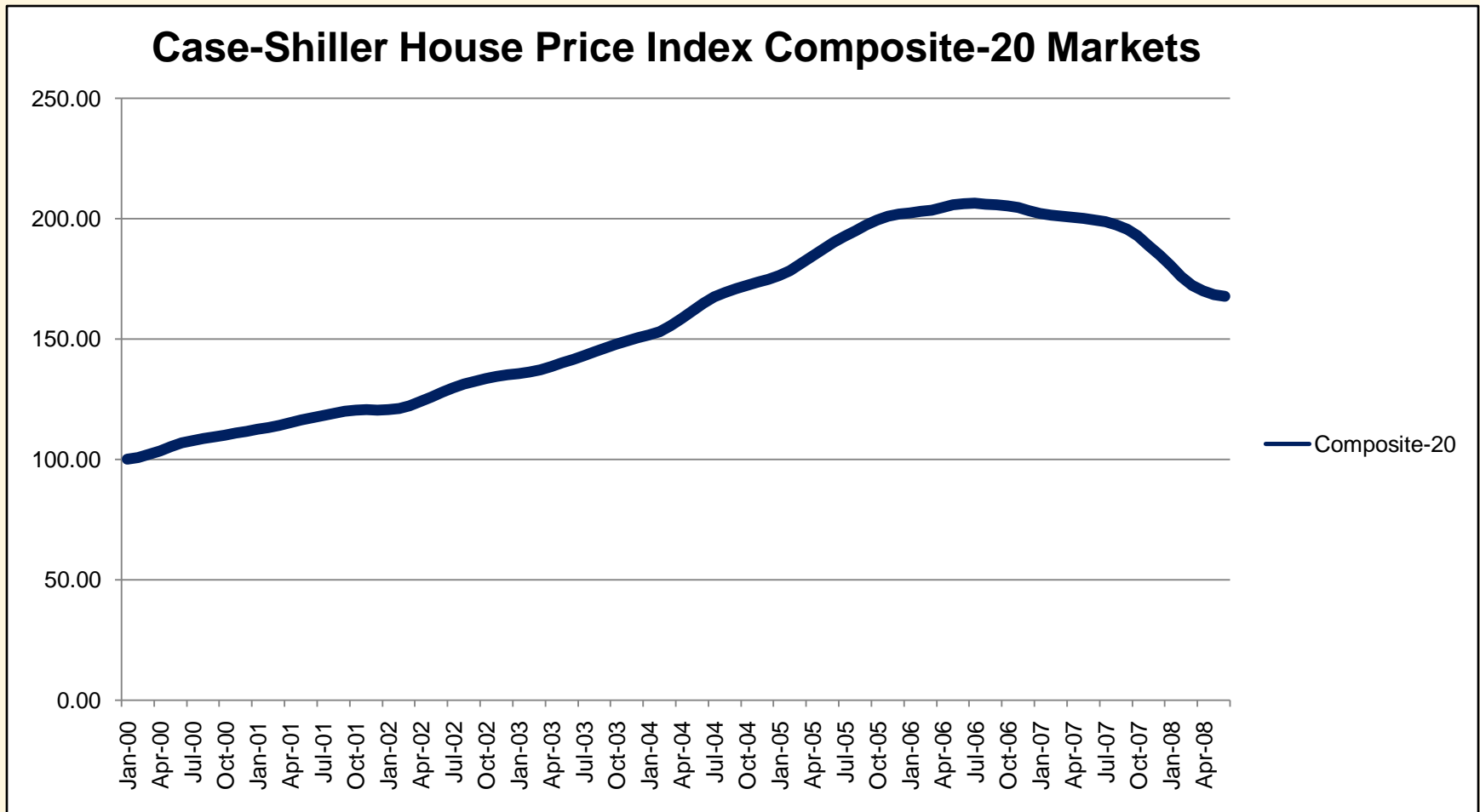
Agenda for Today

- How Did We Get Here?
 - The role of housing prices
 - Structural change in the mortgage market
- Where Are We Today?
 - Default and foreclosure rates
 - Policy initiatives to date
- How Will the EESA Affect the Market?
 - What do these programs do?
 - What effect are they likely to have?
 - Where are the opportunities?

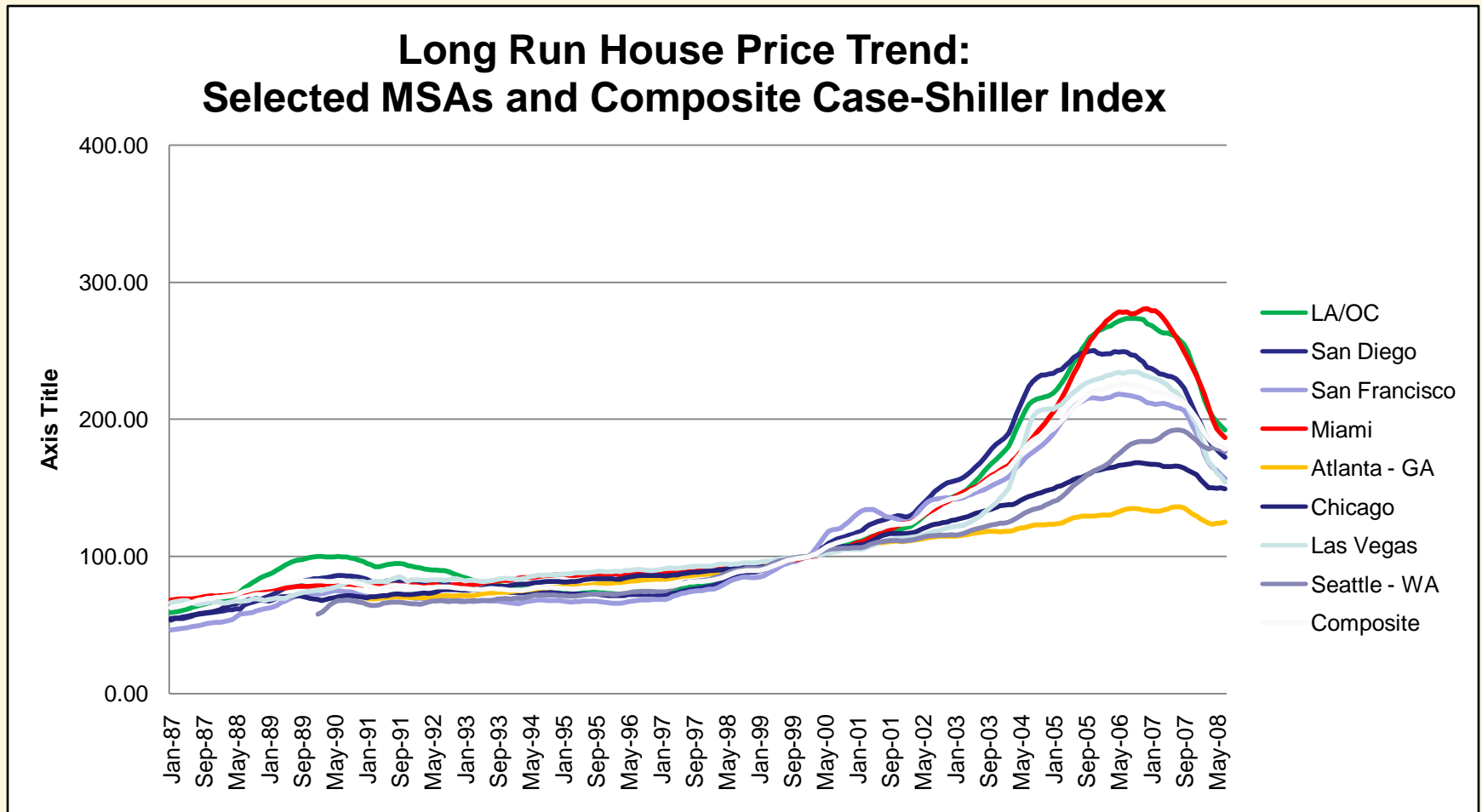
Housing Market

- Best measures available suggest house prices are declining in virtually all markets
- Loan default rates accelerated when housing prices started falling (2006)
- Median price often reported is not a good guide due to changing mix
- Better: Case-Shiller repeat sales indices, publicly available from S&P for 20 major markets and by price tiers

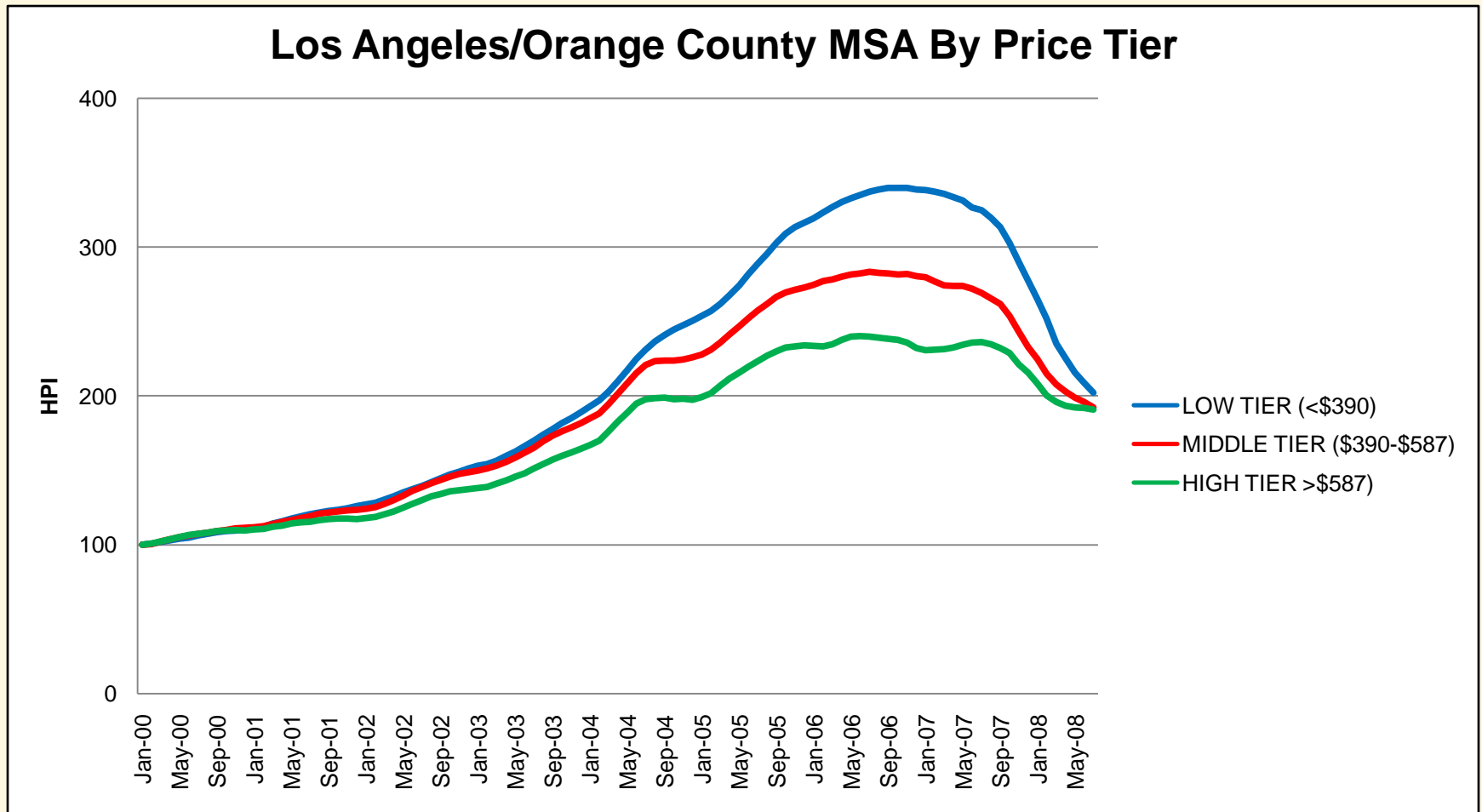
House Prices Increased Sharply; But Starting Declining in 2006



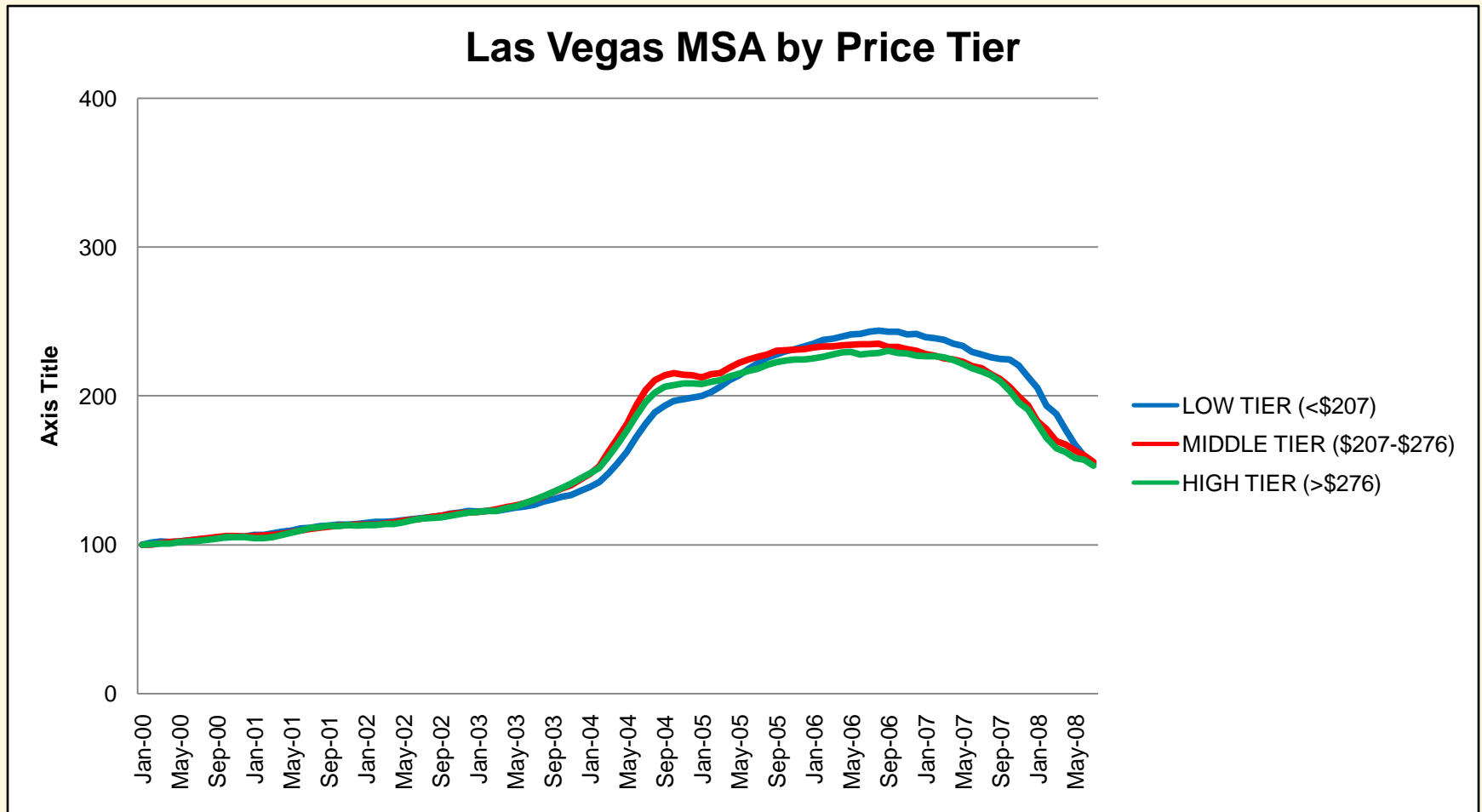
Long Run Varied by Market



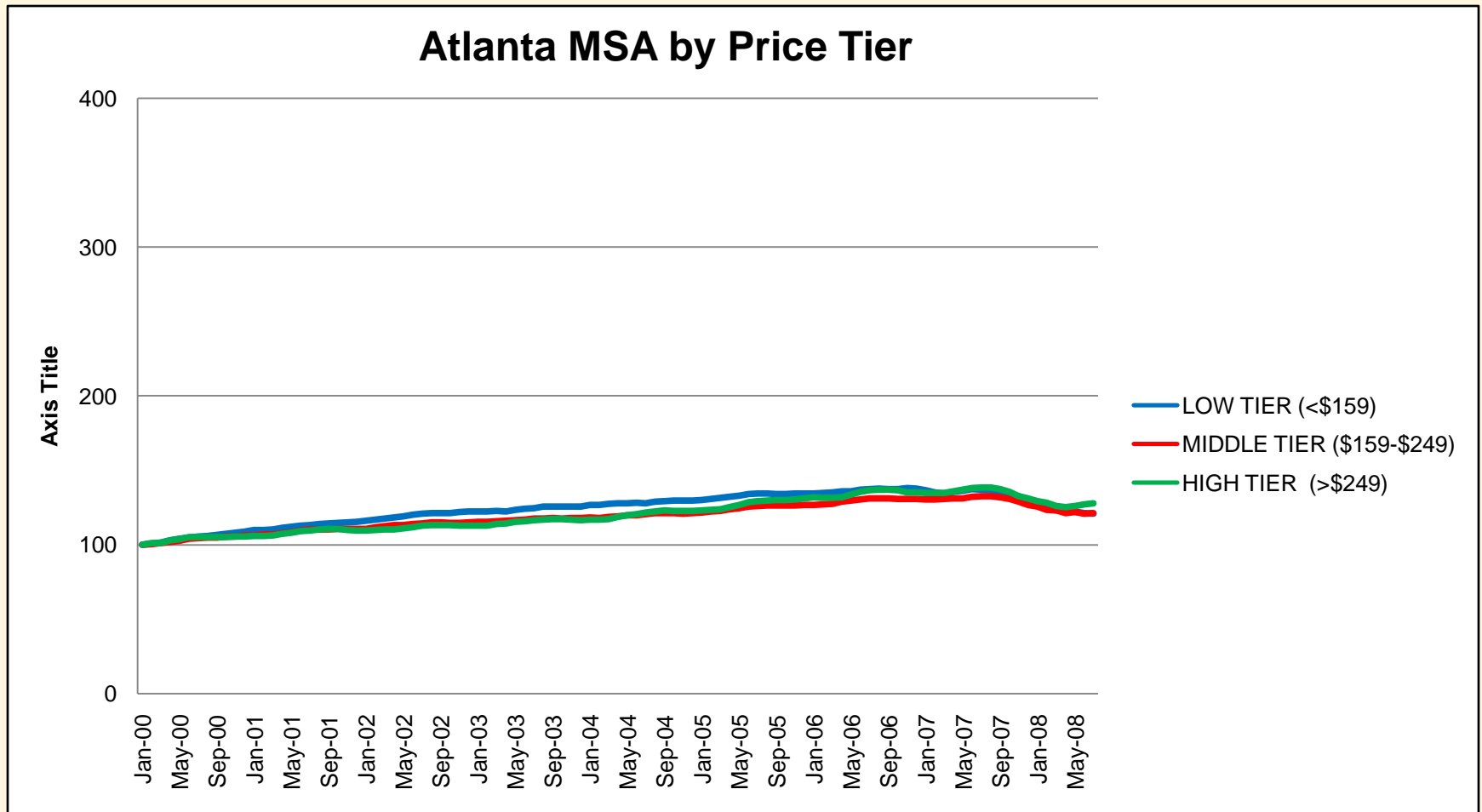
In Some Markets, Lower Priced Housing Was More Volatile Than Higher Priced Housing



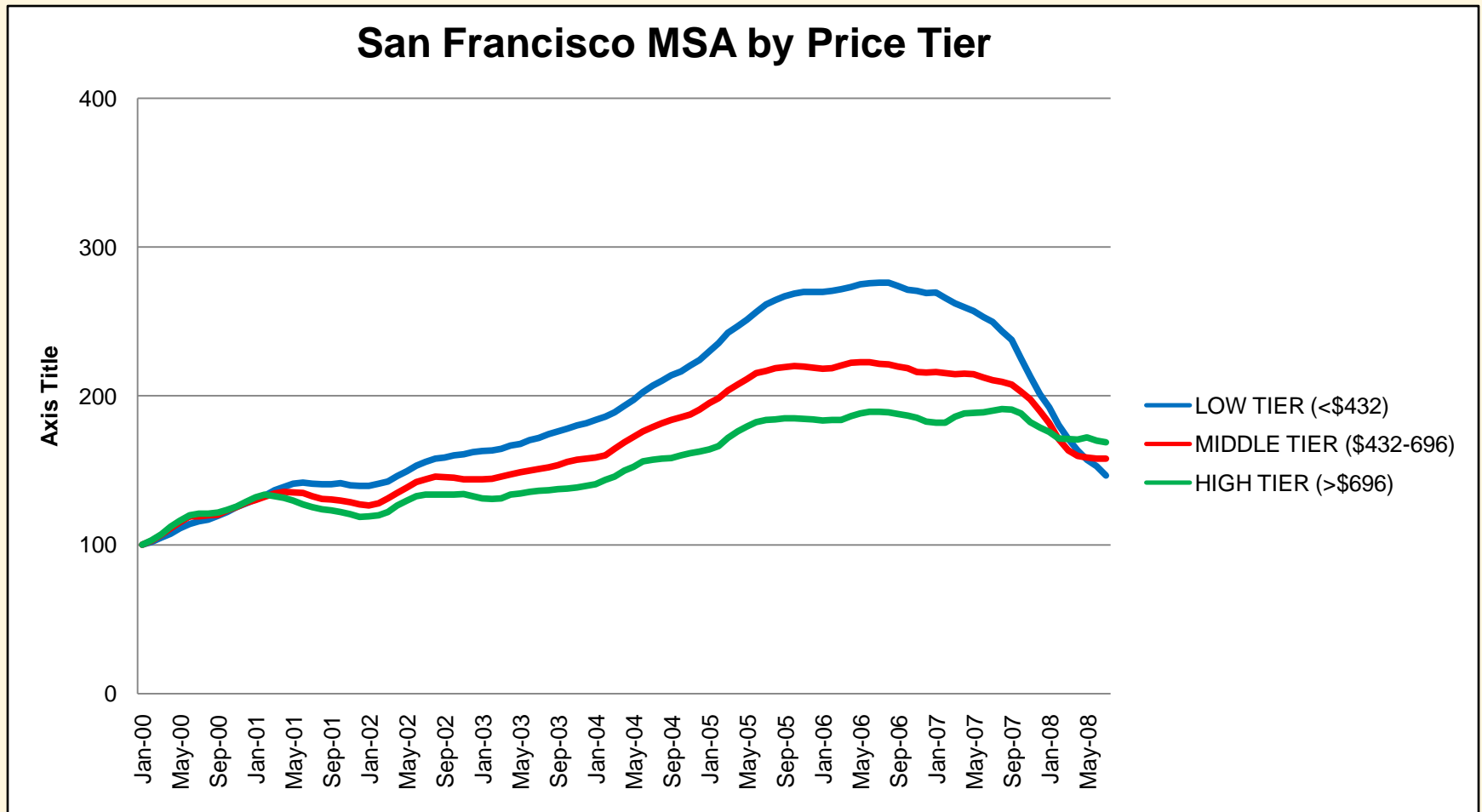
Less So in Other Markets



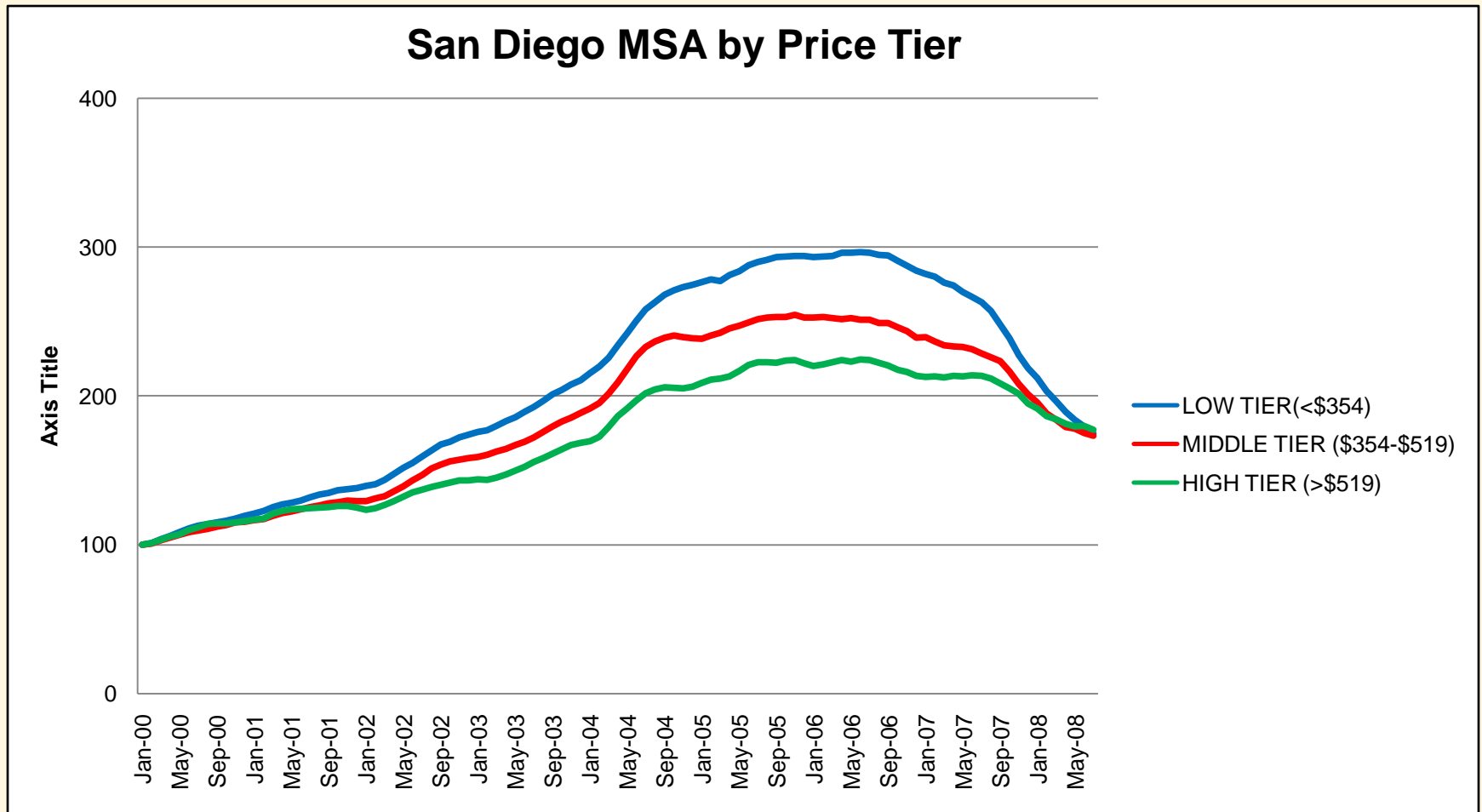
Some Markets Had Only Modest Growth



Northern California Looks A Lot Like LA/Orange County



So Does San Diego



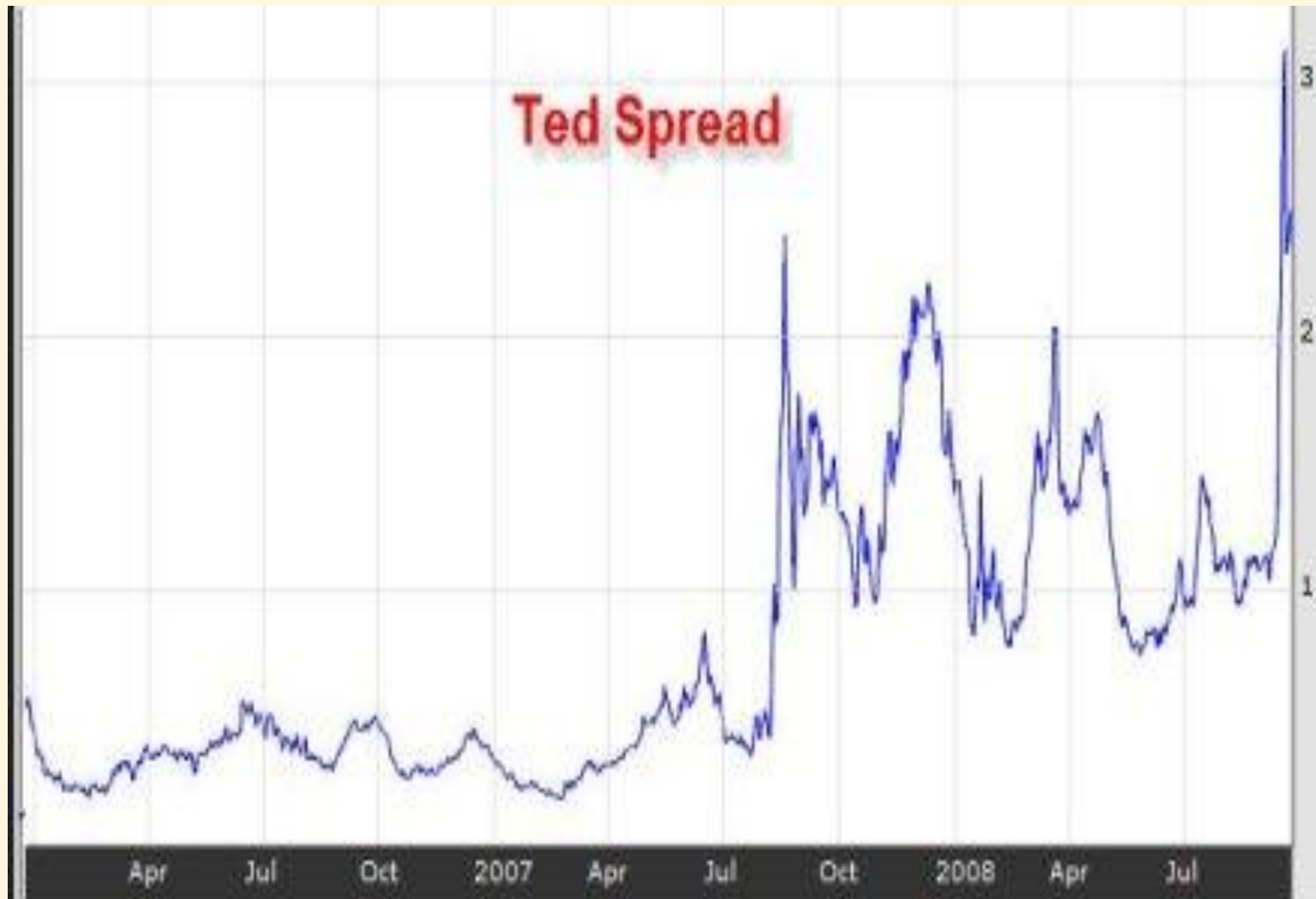
Overview of the Mortgage Market

- Households have about \$10.6 trillion in mortgage debt outstanding, up from \$5.4 trillion as of the end of 2001
- Majority held in mortgage pools and trusts, including Freddie, Fannie, and non-agency securities
- Banks held \$2.8 trillion in home mortgages on their balance sheets, including \$1.9 trillion in first liens and \$0.9 trillion in second liens (mostly HELOCs)

What Happened?

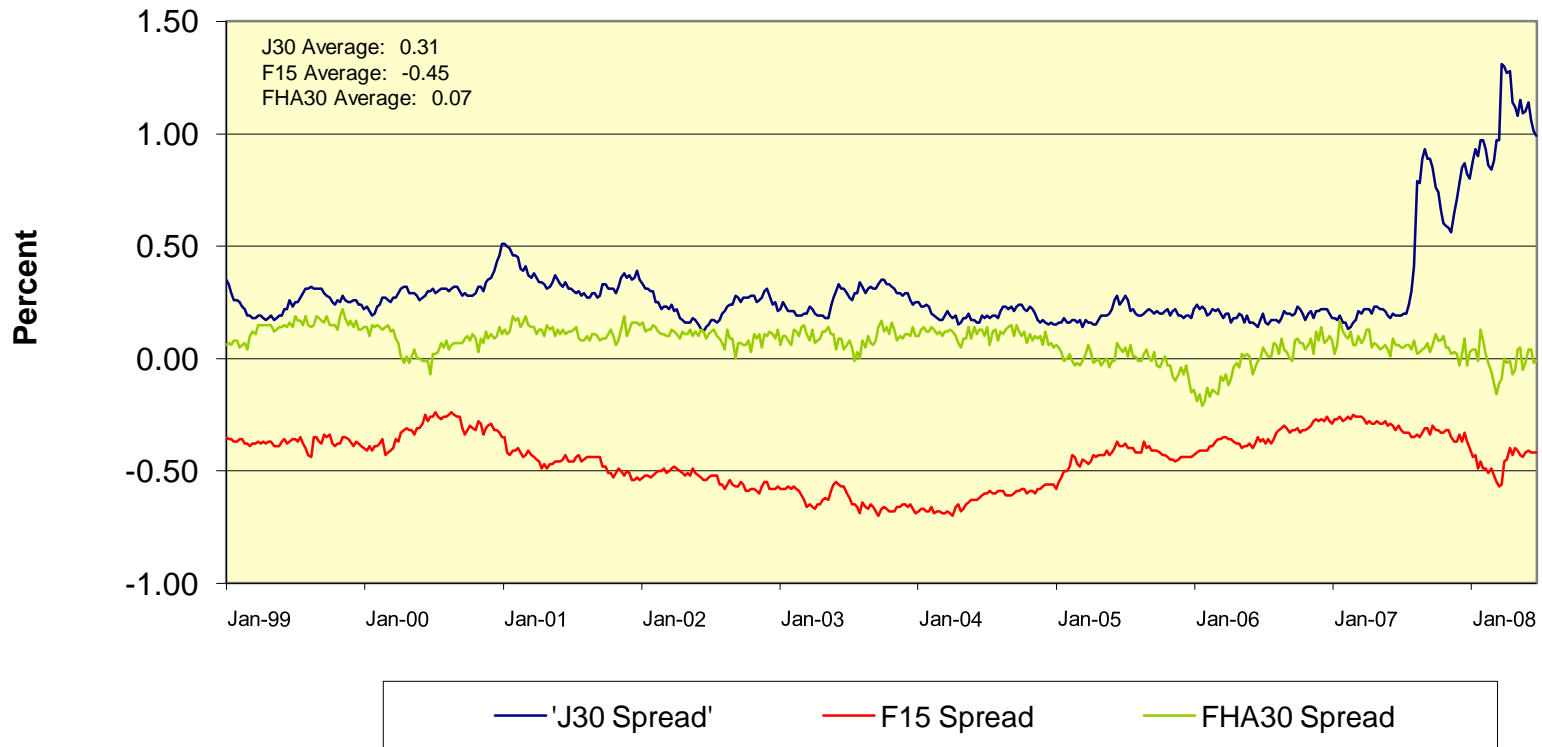
- House prices peaked in 2006 and effect of declines began to be evident in 2007 with rising defaults, especially in subprime
- In August 2007, two Bear Stearns Hedge Funds, including the High-Grade Structured Credit Strategies Enhanced Leverage Fund declared bankruptcy (fund had borrowed heavily to invest in CDOs backed by subprime MBS)
- Fallout caused a dramatic increase in all credit spreads, including mortgage spreads

Ted Spread: 3-month LIBOR – 3-month Treasury

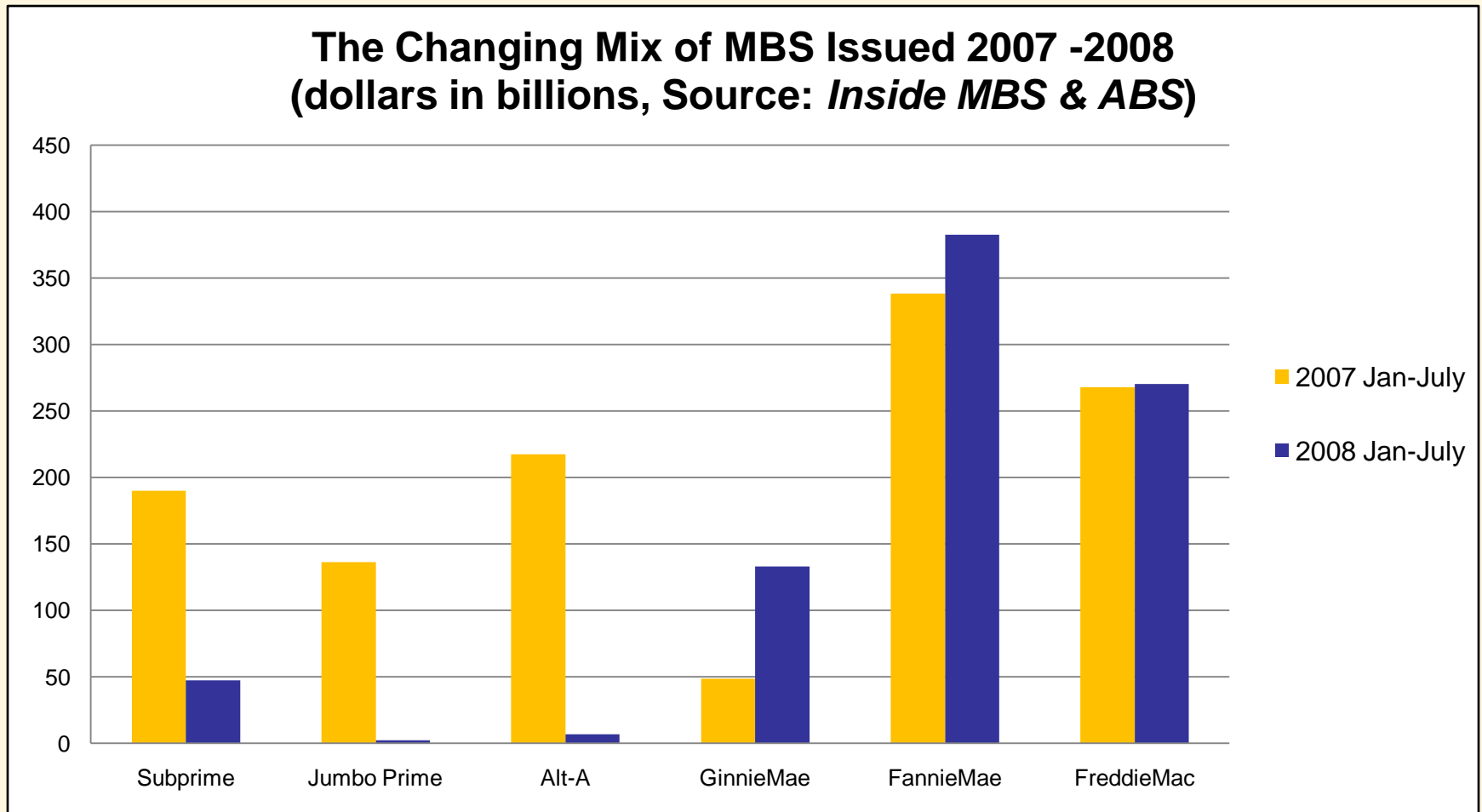


Similar Pattern in the Jumbo-Conforming Spread

HSH Spreads to Conforming 30 Rate
Jan 1999 through Jun 20, 2008



Resulting Collapse in Non-agency MBS Issued Dried Up Liquidity



Residential Mortgage Market

The Big Picture

- About 45.4 residential million mortgages in the U.S. (first liens)
- As of Q208 about 6.41% are delinquent (defined as 30, 60, or 90 days past due)
- As of Q208 about 2.75% are in the foreclosure process
- Rates much higher in the subprime segment, but that segment comprises only about 13% of all loans outstanding

Source: Mortgage Bankers Delinquency Survey June 2008

Foreclosure Rates by Loan Type

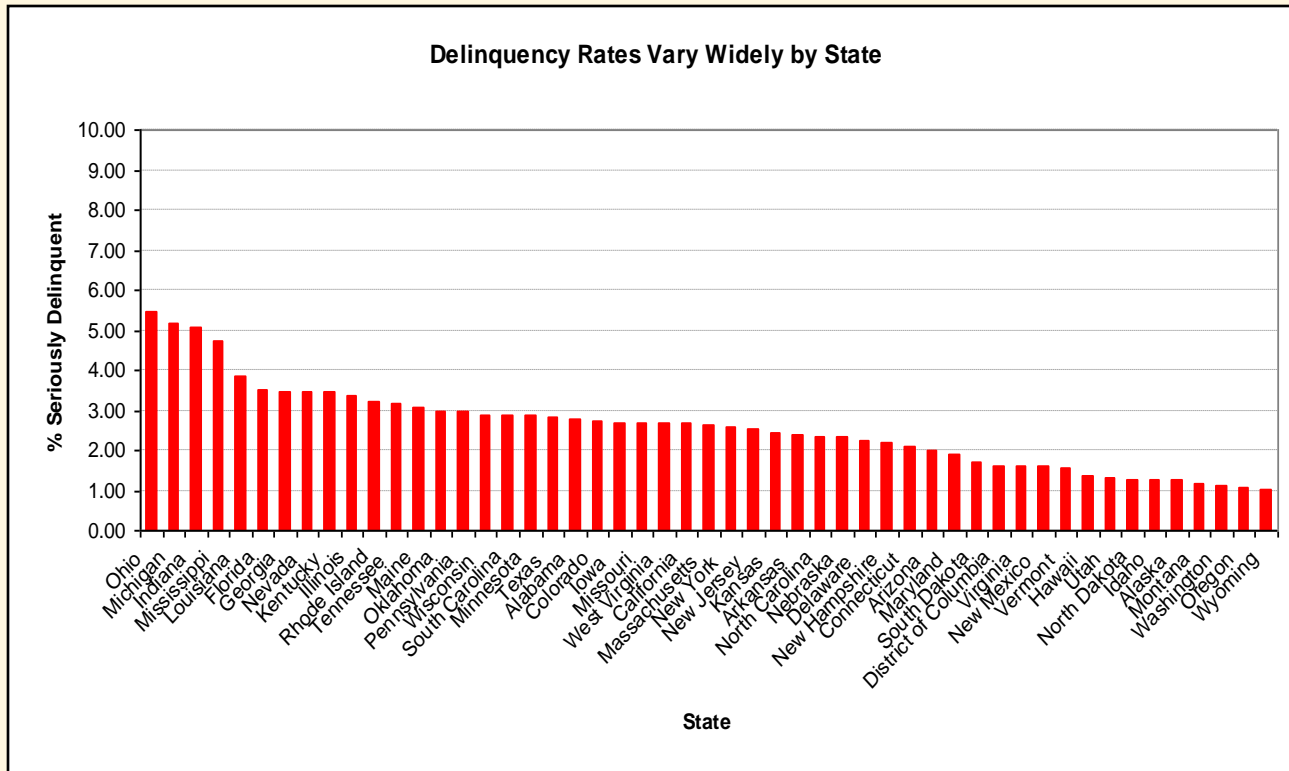
(Source: Mortgage Bankers Association)

Loan Type	Percent of All Loans Outstanding	Percent of Foreclosures Started
Prime Fixed	65%	18%
Prime ARM	15%	20%
Subprime Fixed	6%	12%
Subprime ARM	7%	42%
FHA	7%	8%

On Bank Balance Sheets

- As noted previously, banks and thrifts hold \$2.8 trillion in home mortgages on their balance sheets
- These have a serious delinquency rate of only 2.7%
- So most of the bad debt is in mortgage-backed securities and related assets, not whole loans

Wide Variation by Geography



Source:
Mortgage Bankers Delinquency Survey June 2008

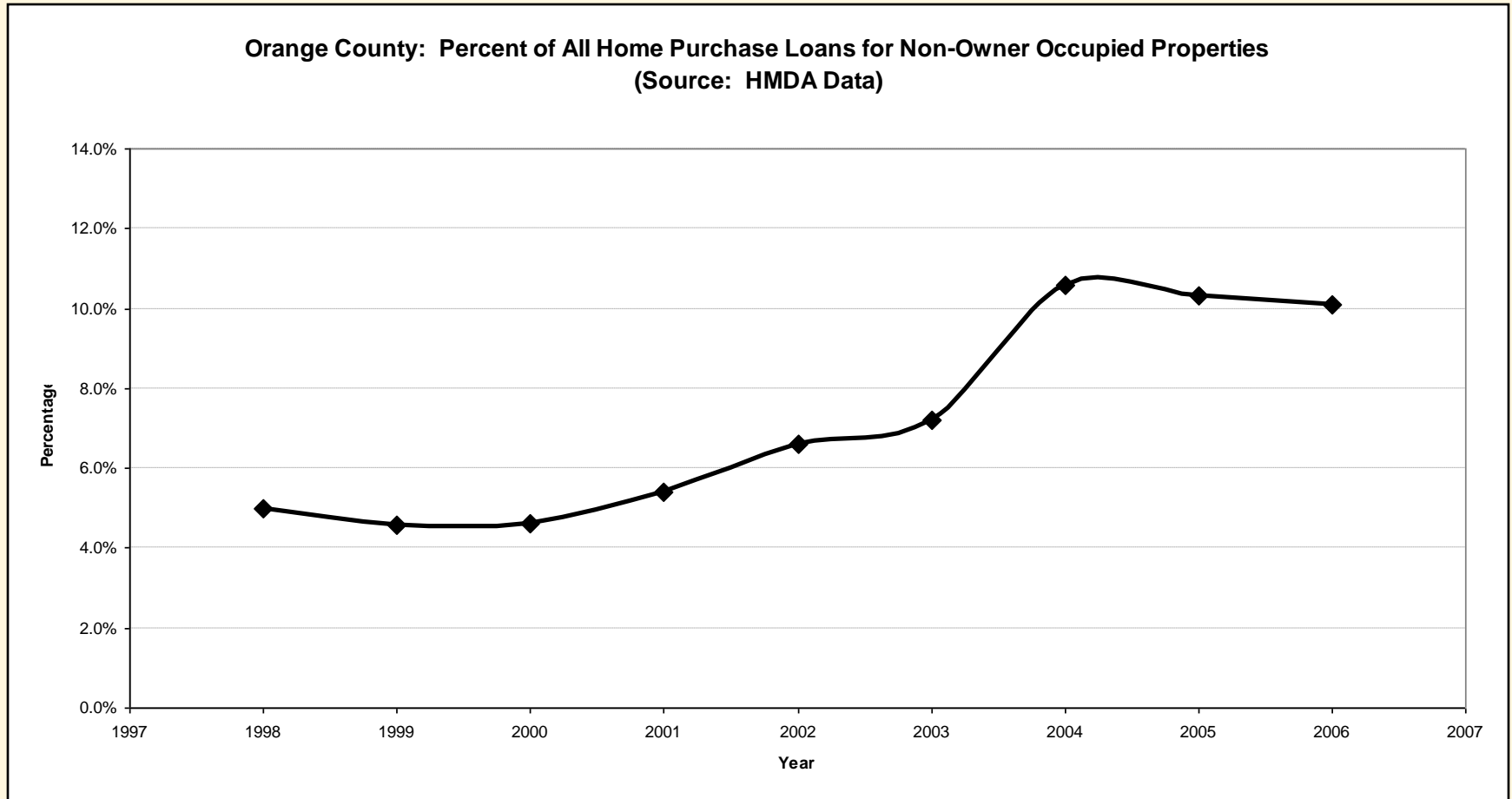
U.S. Mortgage Market: The Subprime Segment

- Loans to borrowers with low credit scores and/or high levels of debt to income
- Traditionally the province of unregulated consumer finance companies and used for debt consolidation purposes
- Market grew rapidly over recent years, fueled by rapid house price appreciation which created value against which to lend

U.S. Mortgage Market: The Subprime Segment

- Most subprime loans are adjustable-rate
- Rates typically fixed for 2-3 years, then subject to potentially large rate increases
- Rationale: borrower improves financial position and can refinance into prime market in a few years
- Risk: a higher level of interest rates can make payments hard to afford if household finances do not improve

Some of Growth Due to Speculative Purchase of Homes by Non Owner-Occupants



Causes and Consequences

- House prices took off
 - But government loan limits didn't keep pace, so an increasing fraction of securities backed by mortgages had no credit guarantees
 - And, at least since 2000, incomes haven't keep up
- Interest rates dropped
 - More volatile short rates often dropped more than long rates – volatile spread

Causes and Consequences (continued)

- During the 1980s Wall Street learned that you can lend money to ***companies*** that aren't AAA and still get paid back (the “junk” or high yield market)
- Those companies (previously shut out of credit market) will pay high fees to investment bankers to issue debt
- They will also pay coupons sufficiently high to offset their increased default risk

Causes and Consequences (continued)

- During the 1990s Wall Street learned you can lend money to **households** that aren't AAA and still get paid back (the “subprime” or alternative mortgage market)
- Those households (previously shut out of credit market) will pay high fees to mortgage bankers and brokers to borrow
- They will also pay high coupons, but perhaps not high enough to offset their increased default risk, especially if house prices decline widely

Causes and Consequences (continued)

Technology and Industry Structure

- Automated underwriting put decision-making capability on the desktop of every independent mortgage company and mortgage broker starting about 1995
- By 2005, the National Association of Mortgage Brokers reported that 68 percent of home loan originations involve mortgage brokers (recently this has dropped to under 20%)
- By 2005, 63 percent of mortgages were originated by mortgage companies, 70 percent of which were independent (limited regulation)

Causes and Consequences (continued)

Industry Structure

- Highly leveraged Wall Street investment banks all sought to establish vertically integrated mortgage-backed securities production capabilities
 - EMC Mortgage (Bear Stearns, now JPMC?)
 - Aurora Loan Services (Lehman Brothers, now ?)
 - First Franklin Financial (Merrill Lynch, now B of A?)
 - MortgageIT (Deutsche Bank)
 - Saxon Mortgage (Morgan Stanley)
 - EquiFirst (Barclays)
 - Lime Financial (Credit Suisse).

Causes and Consequences (continued)

Growth in Home Ownership

“ The share of Americans who owned homes rose from 64 percent in 1994 to 69 percent by 2005. This time the new homeowners were largely low and moderate-income groups, and minorities. Over the decade, the homeownership rate in the lowest tenth of the income scale rose 4 percentage points to 43 percent, the second lowest rose 4 percentage points to 49 percent... About 12 million new homeowners have emerged...”(Former Fed Governor Gramlich, 2007)

Current Mortgage Market Problems: Some Things We Don't Know

- Defaults and foreclosures up
 - But concentrated in states with job losses (e.g. Ohio, Michigan, Indiana)?
 - But concentrated in areas where investors bought houses to flip based on expected appreciation (e.g. Florida, Nevada, California)?
 - But concentrated among lower income households who couldn't really afford adjustable rate mortgages especially if short rates rose and the ability to refinance disappeared?

The Emergency Economic Stabilization Act of 2008

- Third major policy initiative of 2008
- Stimulus package was the first
- Second was the Housing and Economic Recovery Act of 2008 signed in July
 - Created Hope for Homeowners (FHA program)
 - Increased conforming loan limits for both conventional conforming and FHA segments
 - Created the new regulator for Freddie and Fannie (FHFA) with powers of conservatorship

The Emergency Economic Stabilization Act of 2008

- Signed into law in October
- Establishes the Troubled Asset Relief Plan (TARP) and phased in funding of \$700 billion
- Creates the Office of Financial Stability within the Treasury Dept and authorizes the Secretary to purchase, or guaranty, “troubled assets” from “any financial institution”; also to make equity investments

The Troubled Asset Relief Plan

- Troubled assets are broadly defined as “residential or commercial mortgages and any securities, obligations or other instruments that are based on or related to such mortgages” originated or issued before March 14, 2008
- Covers RMBS, CMBS, CDOs and related derivatives
- Estimated \$4.5 trillion of such paper outstanding

TARP Capital Purchase Program

- \$250 billion investments in senior preferred stock and warrants in eligible financial institutions
- First \$125 billion goes to 9 major institutions
- Formula based on risk-weighted assets to determine amount of senior preferred stock to be purchased (1-3% of risk-weighted assets)
- Terms: 5% cumulative dividend for first five years, 9% thereafter (incentive to retire)

TARP Capital Purchase Terms

- Senior preferred stock is non-voting (except in certain cases)
- May not be redeemed for 3 years except by issues of new common equity
- Restrictions on dividends paid to common shareholders and executive compensation
- Warrants for 15% of the amount of the senior preferred also granted at current common equity price (upside)

TARP Objectives and Likely Impact

- Increase liquidity in the credit markets by removing troubled assets from balance sheets and inject new capital
- Key success measure: reduction in the risk spreads on credit instruments
- Does not directly address collateral values (e.g. house prices) but reducing mortgage spreads will make home purchases relatively more affordable

Where Are the Opportunities?

- Buying distressed assets at deep discounts
 - Finished lots at less than \$0.50 on the dollar
 - Raw land at even deeper discounts
 - Most foreclosure sales today have no bidders
 - Short sales and bank REO
 - Buying distressed debt itself?
- Need for capital, because financing such assets will probably be difficult

Conclusions

- Growth in subprime lending was fueled by house price appreciation and mortgage securitization model
- Subprime lending increased the rate of homeownership, but perhaps among parts of the population who could not afford it
- Losses experienced by those with subprime loan exposure produced a loss of confidence in all mortgage-related assets

Conclusions (continued)

- Mortgage credit spreads have increased substantially as a result
- Mortgage-backed securities without credit guarantees have become illiquid, including CMBS
- Such assets are widely held worldwide, causing contagion, also to commercial real estate
- Federal Reserve and Treasury are actively attempting to restore liquidity to the market (EESA and TARP are key first steps)
- Many opportunities for those with unleveraged capital available to invest

References

- 1) United States Government Accountability Office. 2006. Alternative Mortgage Products . Report to the Chairman, Subcommittee on Housing and Transportation, Committee on Banking, Housing, and Urban Affairs, U.S. Senate. GAO-06-1021
- 2) FFIEC. 2006. Interagency Guidance on Nontraditional Mortgage Product Risks . September 25, 2006, available at www.ffiec.gov.
- 3) FFIEC. 2007. Interagency Statement on Subprime Mortgage Lending. June 28, 2007, available at www.ffiec.gov.
- 4) Gramlich, Edward. 2007. Subprime Mortgages: America's Latest Boom and Bust. Washington, D.C.: The Urban Institute Press.
- 5) Shiller, Robert. 2008. The Subprime Solution. Princeton University Press