



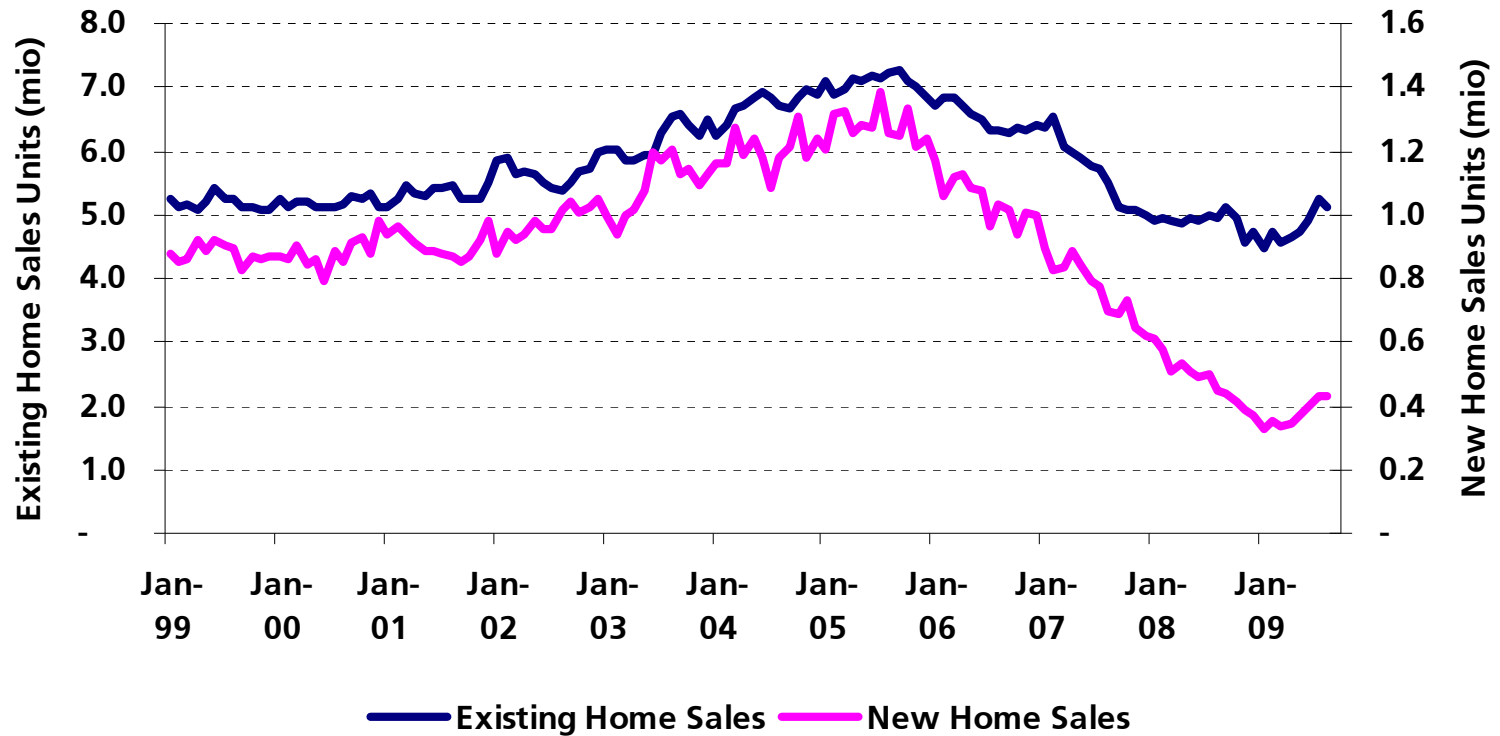
The Deflating Bubble, Part VI: The Lessons of The Bubble and Crisis

AEI-PRIMA
October 22, 2009

Thomas Zimmerman
Managing Director
UBS AG

Existing and New Home Sales Appear to Have Bottomed

Home Sales (New and Existing)

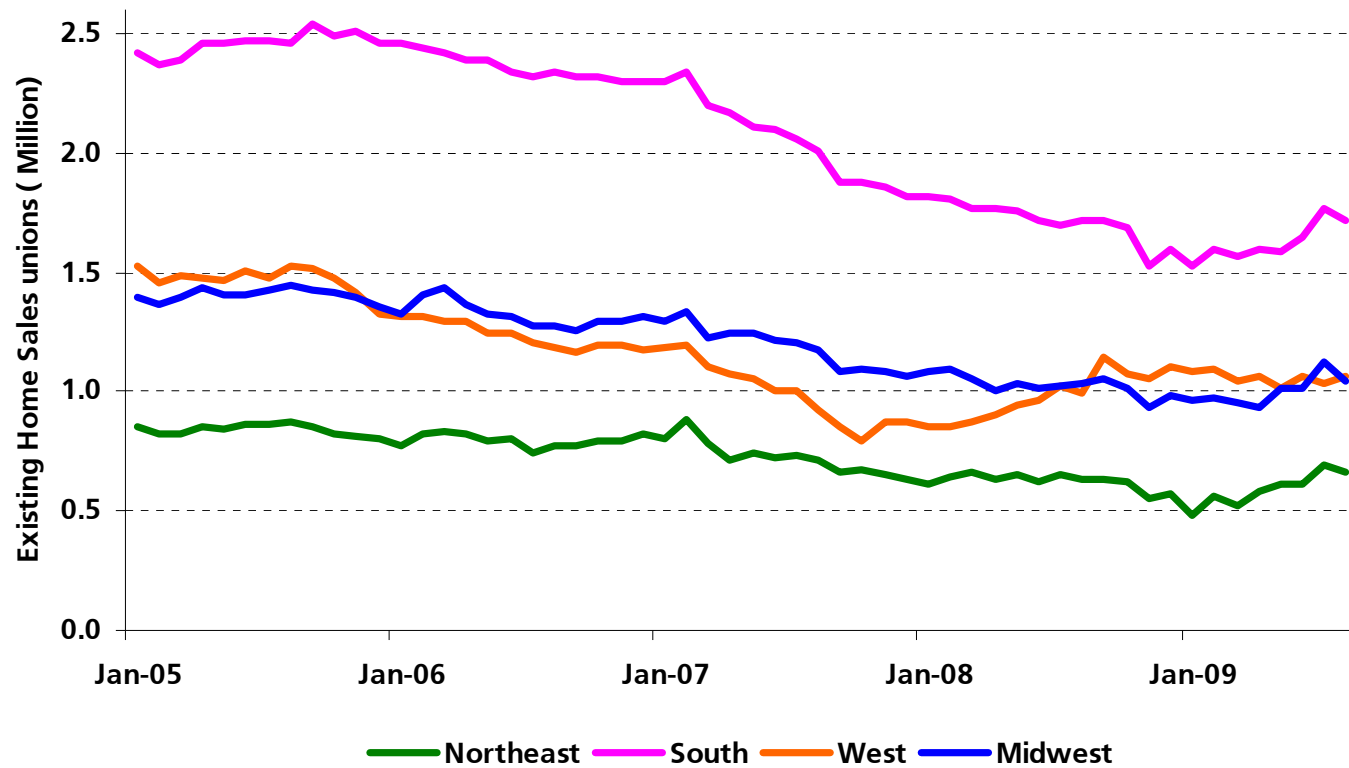


Source: National Association of Realtors
Latest Data: August 31, 2009



But Sales in the West Raise a Question

Existing Home Sales by Region

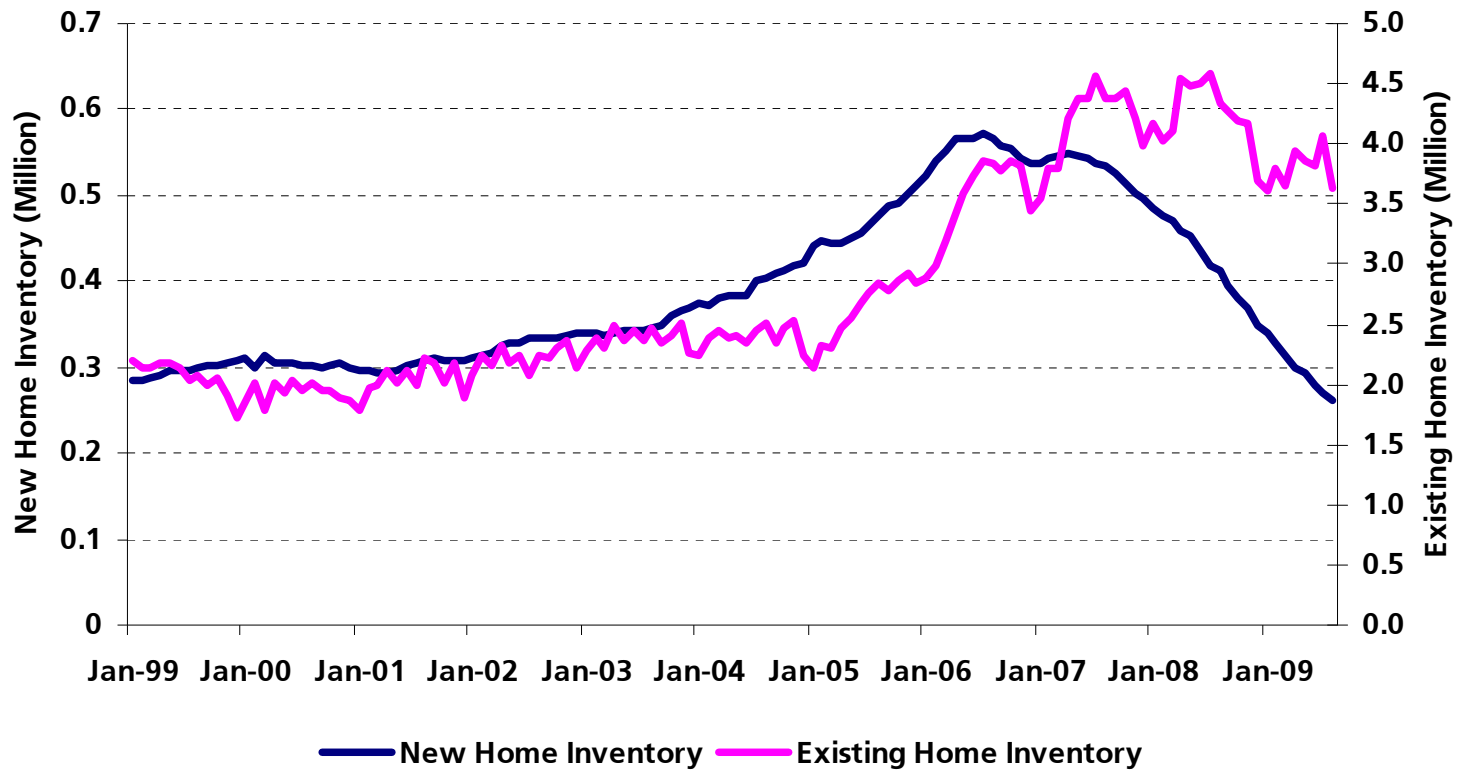


Source: National Association of Realtors
Latest Data: August 31, 2009



Inventory of Existing and New Homes Has Dropped

Inventory for Sale

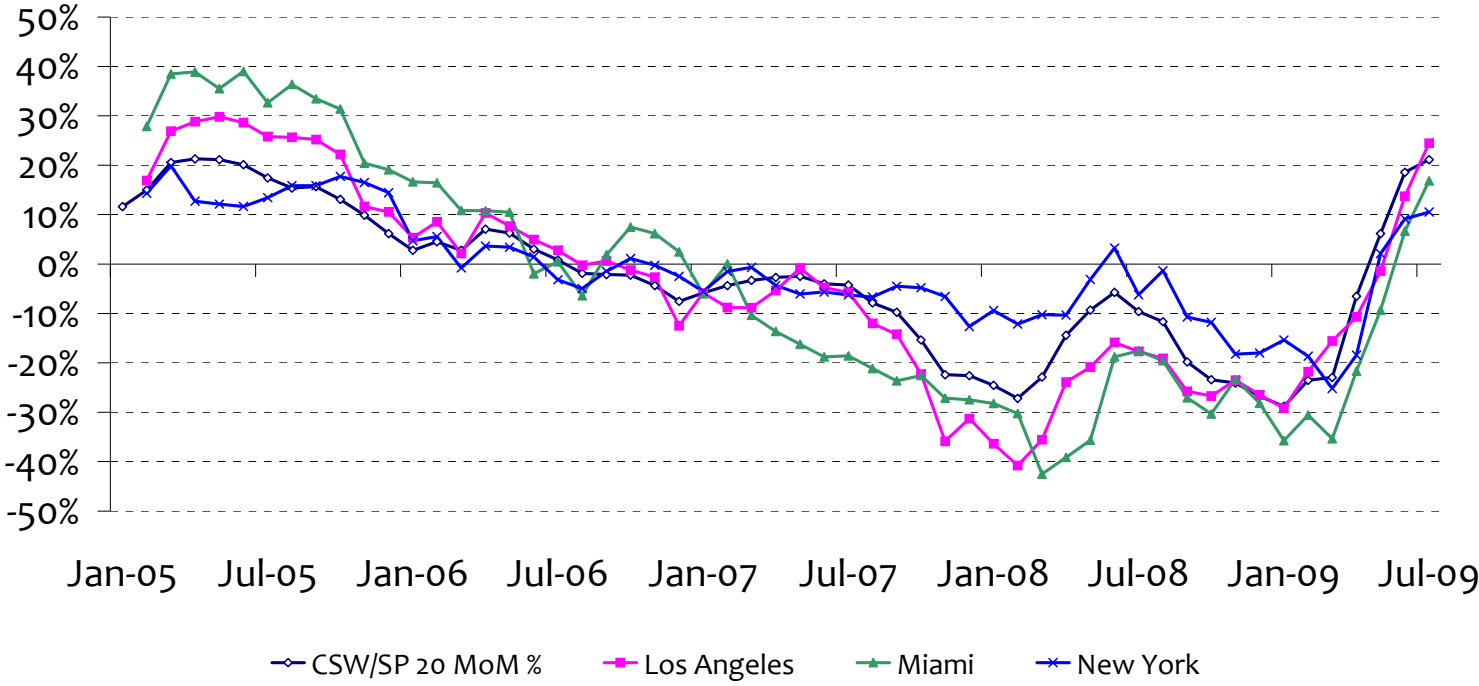


Source: National Association of Realtors
Latest Data: August 31, 2009



Home Price Indices Have Turned Positive

Case-Sheiller-Weiss/S&P Indices (MoM Annualized)



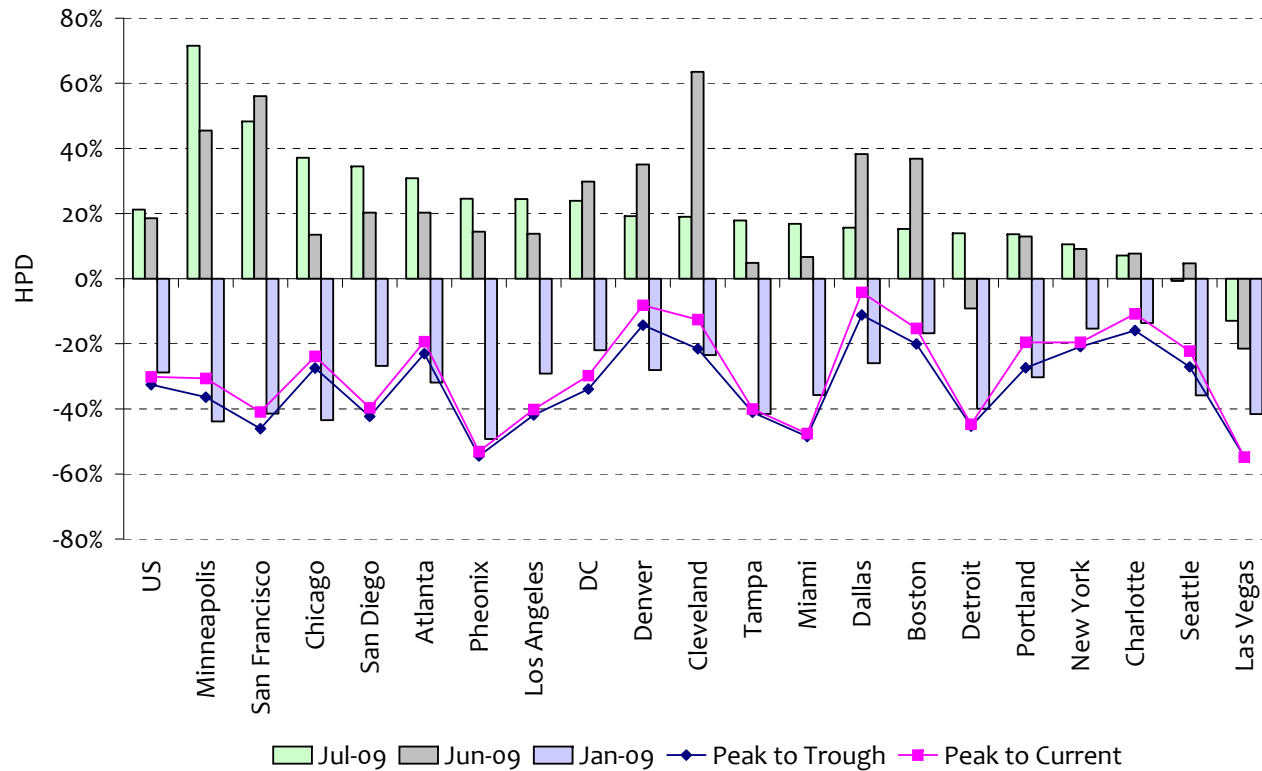
Source: Case-Shiller
Latest Data: July 31, 2009



Case Shiller 20 MSA Indices Gained 1.6% MoM in July

- The housing market saw an improvement with magnitude and breadth beyond expectations

SP/CS 20 MSA HPD Comparison

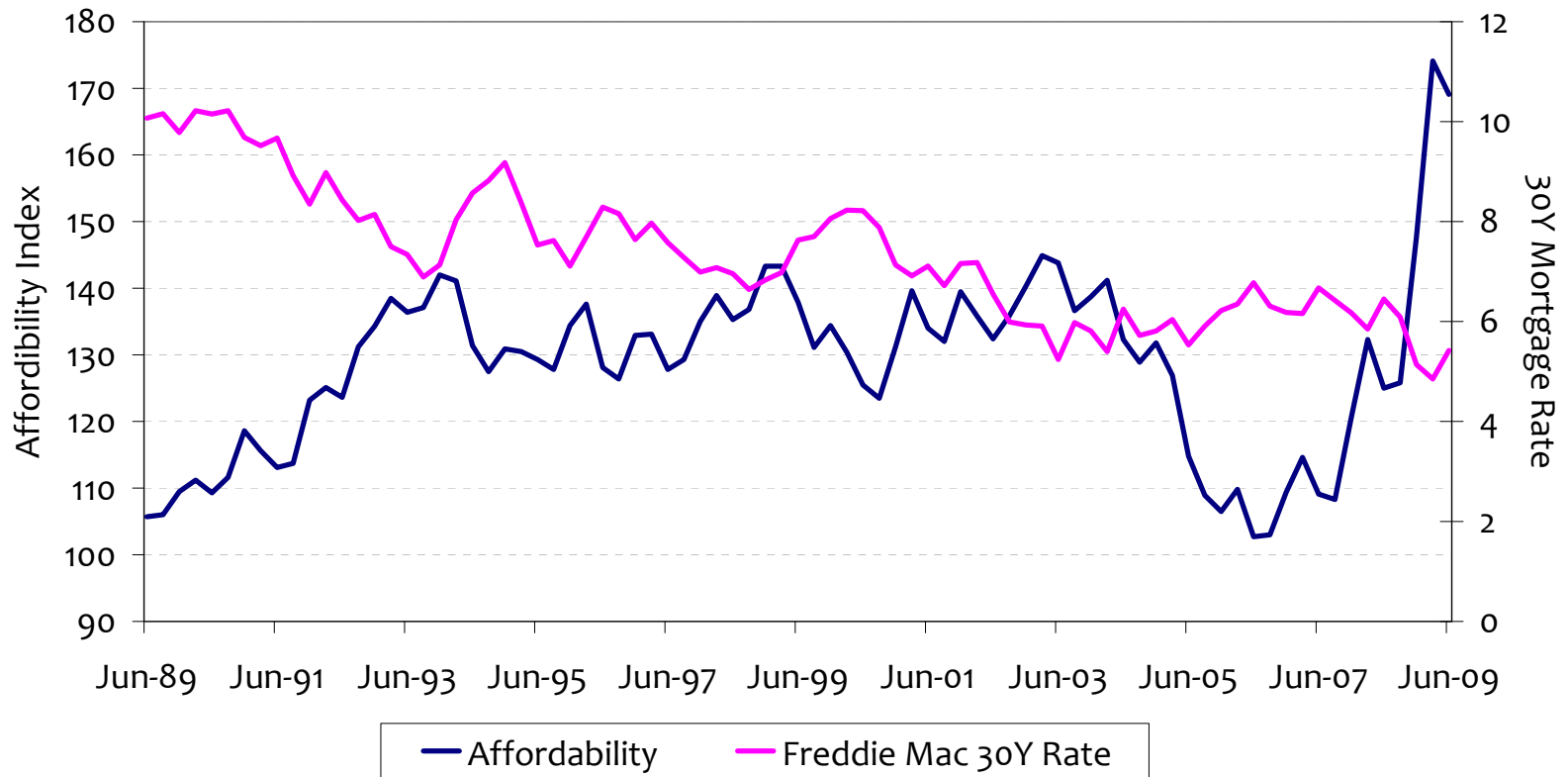


Source: Case-Shiller
Latest Data: July 31, 2009



Affordability Has Reached an Historic High

NAR Quarterly Housing Affordability Index



Source: National Association of Realtors
Latest Data: September 2009



But Non-agency MBS Market is Almost Non-existent

Mortgage & Asset Securities Issuance

(Dollars In Millions)

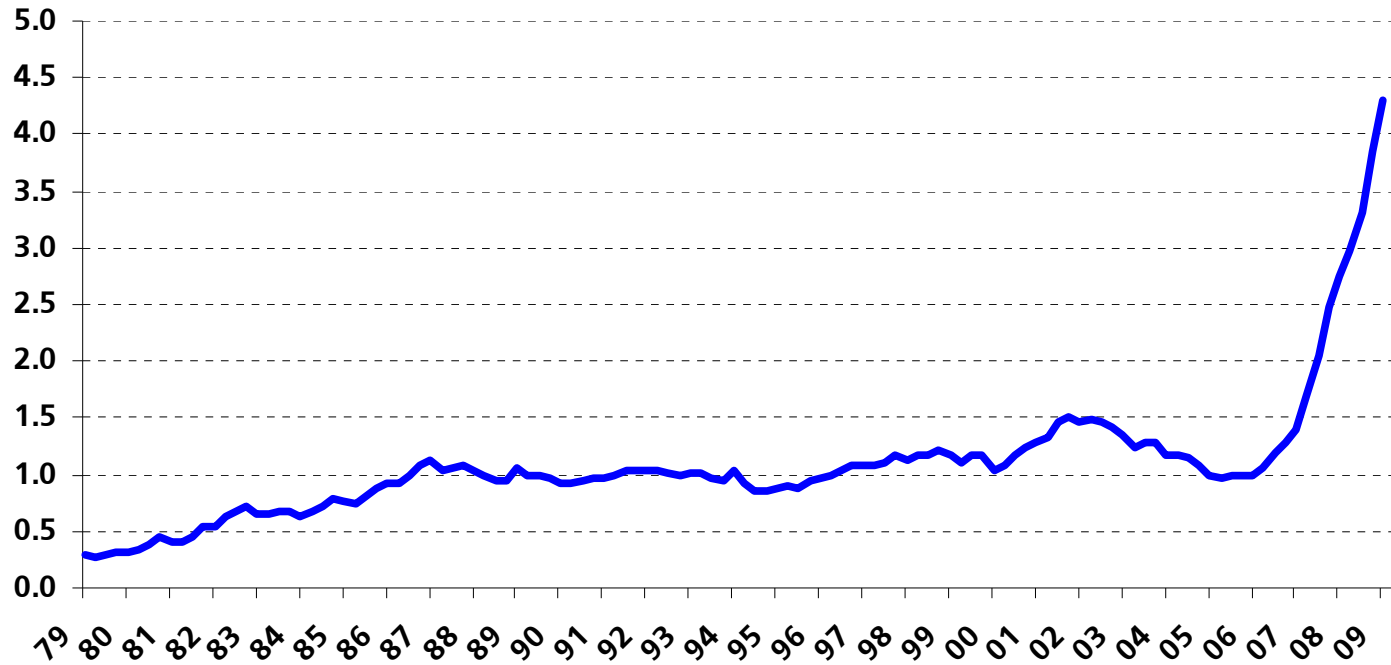
Year/Qtr. End	GNMA	FHLMC	FNMA	Non-Agency	Total	% of Non Agency
1990	\$64,344	\$73,815	\$96,695	\$24,431	\$259,285	9%
1991	\$62,630	\$92,479	\$112,903	\$49,349	\$317,361	16%
1992	\$81,919	\$179,207	\$194,037	\$89,466	\$544,629	16%
1993	\$137,984	\$208,724	\$221,444	\$98,493	\$666,646	15%
1994	\$111,185	\$117,110	\$130,622	\$63,182	\$422,099	15%
1995	\$72,763	\$85,877	\$110,456	\$48,926	\$318,022	15%
1996	\$100,880	\$119,702	\$149,849	\$69,893	\$440,324	16%
1997	\$103,743	\$114,528	\$149,429	\$119,132	\$486,832	24%
1998	\$149,112	\$250,764	\$326,148	\$203,211	\$929,234	22%
1999	\$151,410	\$233,031	\$300,689	\$147,899	\$833,029	18%
2000	\$103,251	\$165,624	\$210,205	\$135,959	\$615,038	22%
2001	\$172,708	\$389,611	\$525,321	\$267,320	\$1,354,960	20%
2002	\$172,135	\$547,056	\$723,299	\$413,955	\$1,856,445	22%
2003	\$217,716	\$713,787	\$1,198,616	\$586,216	\$2,716,336	22%
2004	\$124,388	\$365,148	\$527,145	\$864,152	\$1,880,833	46%
2005	\$85,766	\$397,867	\$481,260	\$1,191,263	\$2,156,182	55%
2006	\$82,275	\$360,023	\$456,857	\$1,145,612	\$2,044,768	56%
2007	\$95,511	\$444,312	\$617,707	\$707,013	\$1,864,544	38%
2008	\$269,046	\$357,861	\$541,960	\$57,992	\$1,226,859	5%
1Q09	\$88,581	\$103,776	\$154,320	\$5,490	\$352,167	2%
2Q09	\$116,265	\$151,342	\$315,955	\$26,417	\$609,979	4%
3Q09	\$126,992	\$121,193	\$199,923	\$10,563	\$458,671	2%

Source: *Inside MBS & ABS*
Latest Data: Q3, 2009



Foreclosures at Record Level

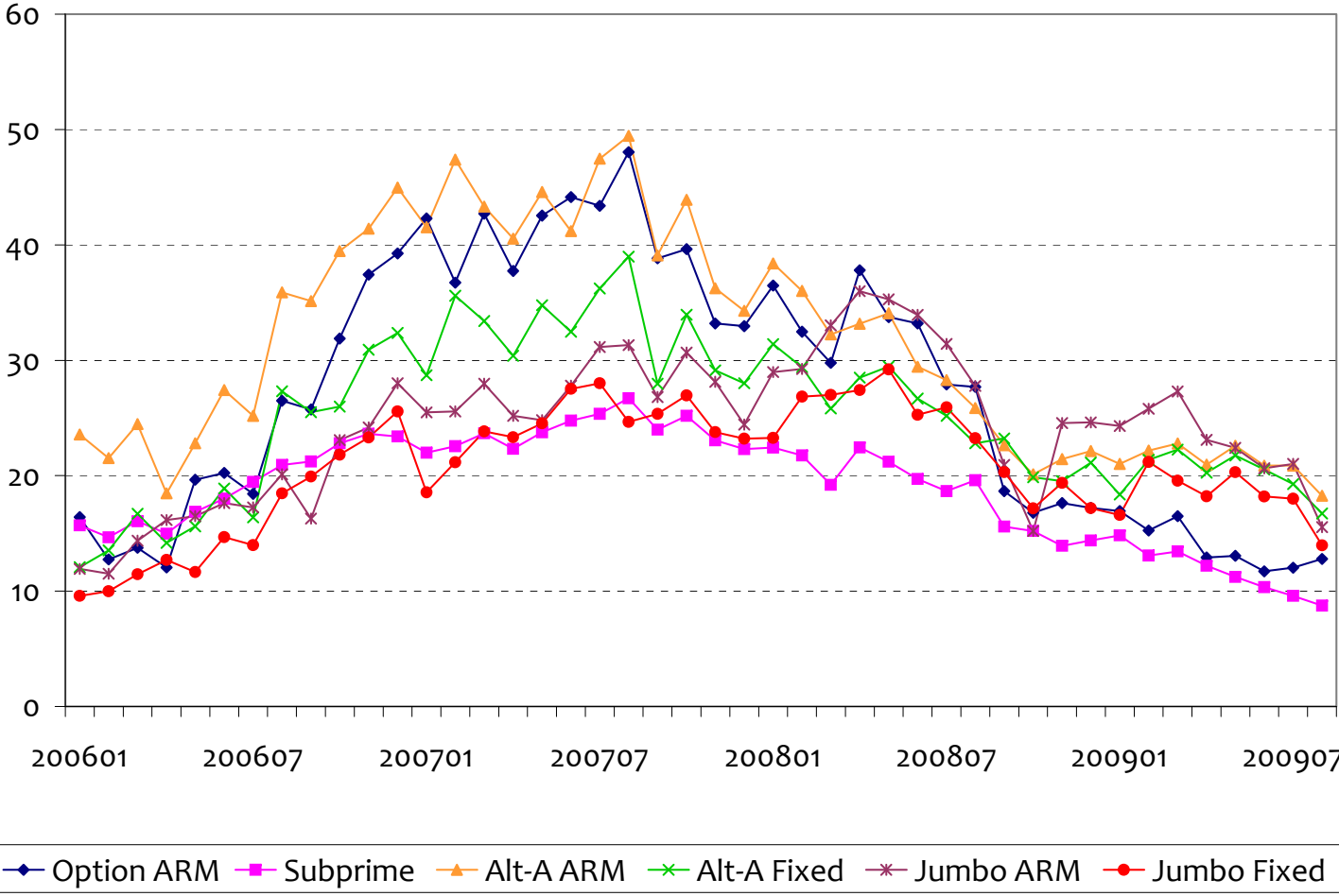
Foreclosures As % of Total Loans



Source: Mortgage Banker Association
Latest Data: June, 2009



Monthly 90-day to Foreclosure Roll Rate Still Falling



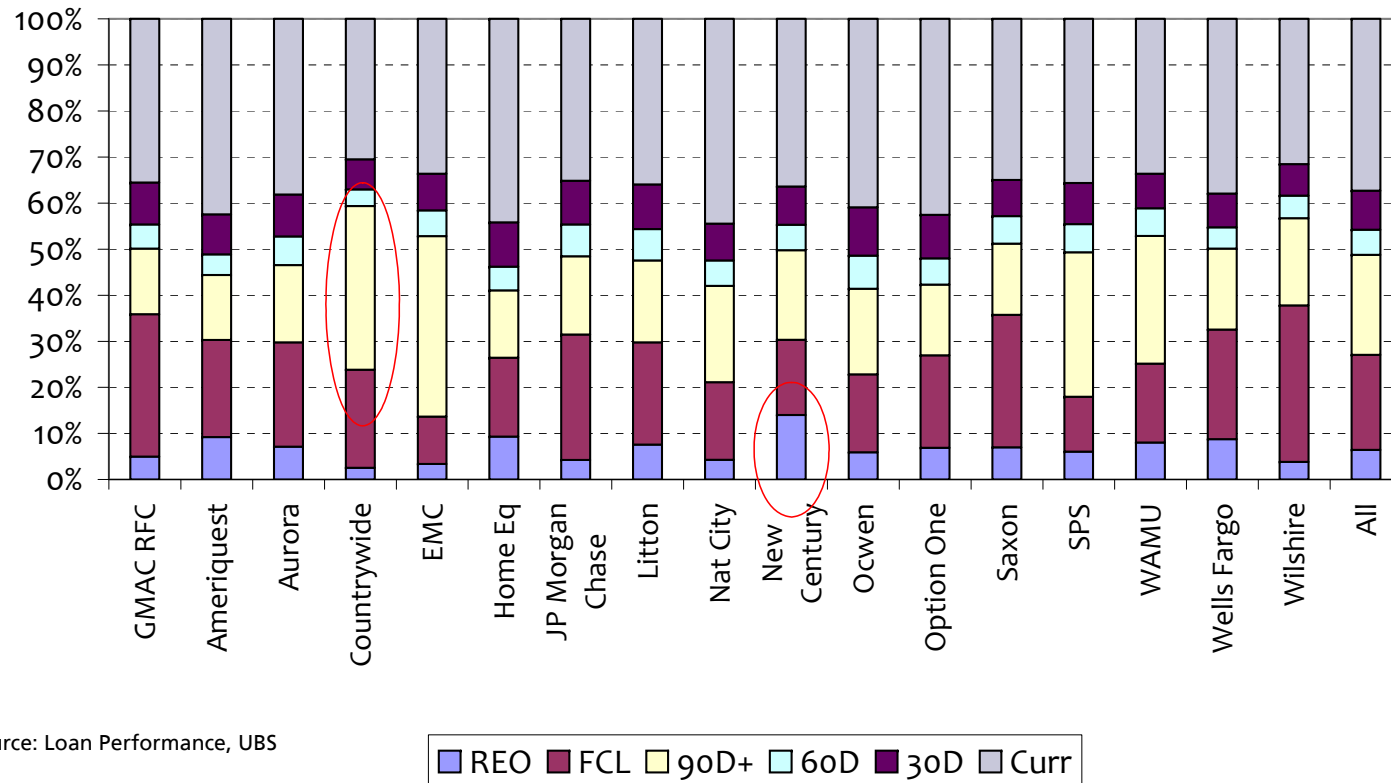
Source: Loan Performance, UBS
 Latest Data: July, 2009



Delinquency Buckets By Subprime Servicers

- Countrywide has a LARGE 90-day bucket as the servicer keeps loans from entering foreclosure
- New Century has a relatively large REO bucket as liquidation was slow

Delinquency Buckets by Subprime Servicers
-- 2006 Vintage



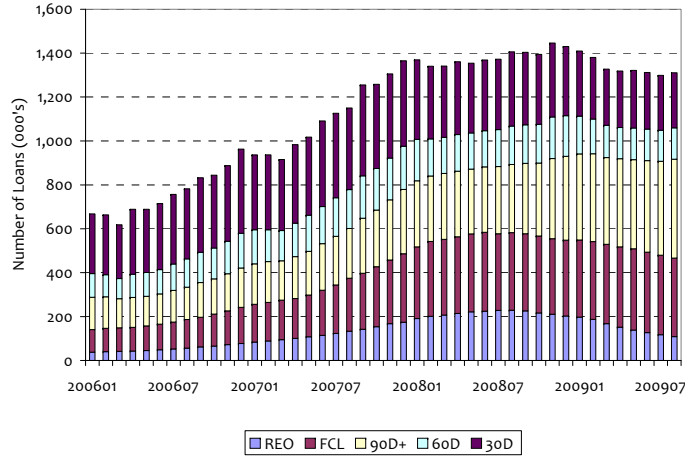
Source: Loan Performance, UBS



Loans in Delinquency Buckets by Product Types – Total Non-agency

- Subprime delinquency pipeline has passed its peak level since end of 2008; while prime jumbo delinquency continue to rise

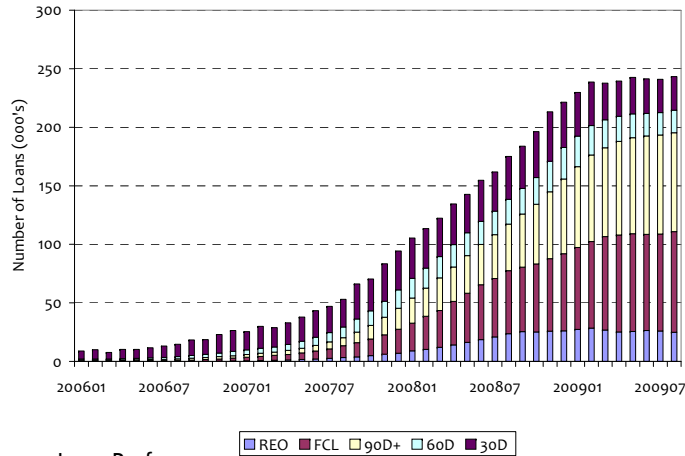
Subprime



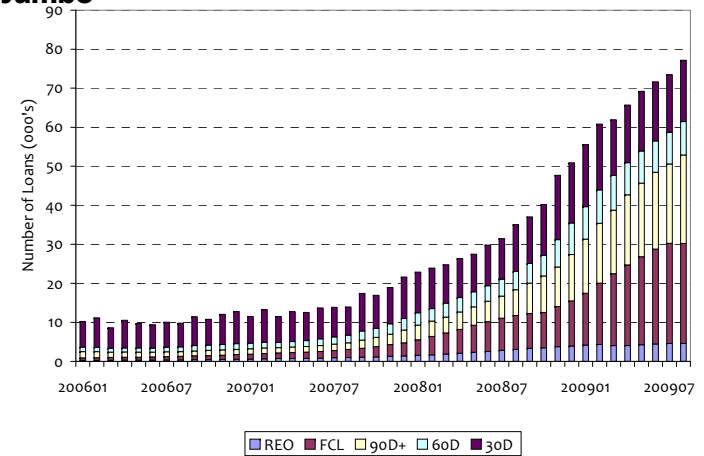
Alt A



Option ARM



Jumbo



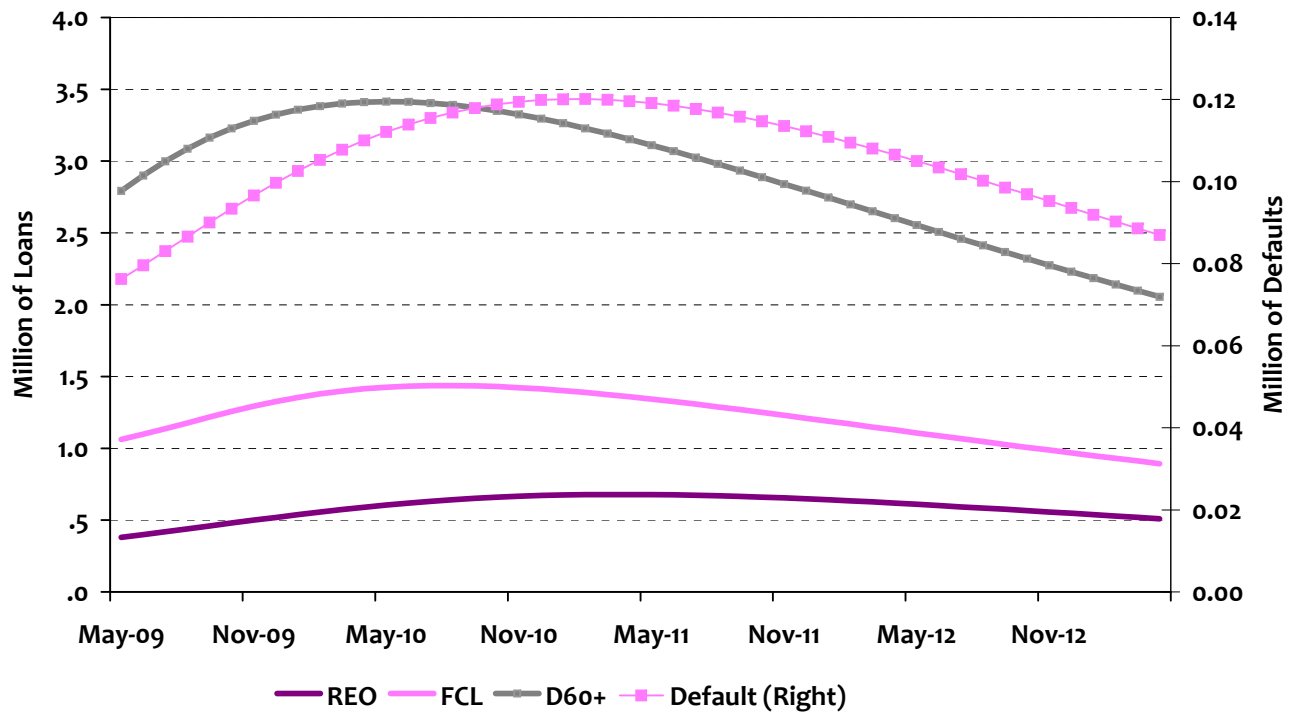
Source: Loan Performance
Latest Data: July 2009



Expect 5 MM Defaults In 4 Years Plus 2 MM in Delinquency

- Default will not peak until year end 2010; monthly default rates will peak at 120K units

Projected Mortgage Loan Counts by Delinquency Bucket

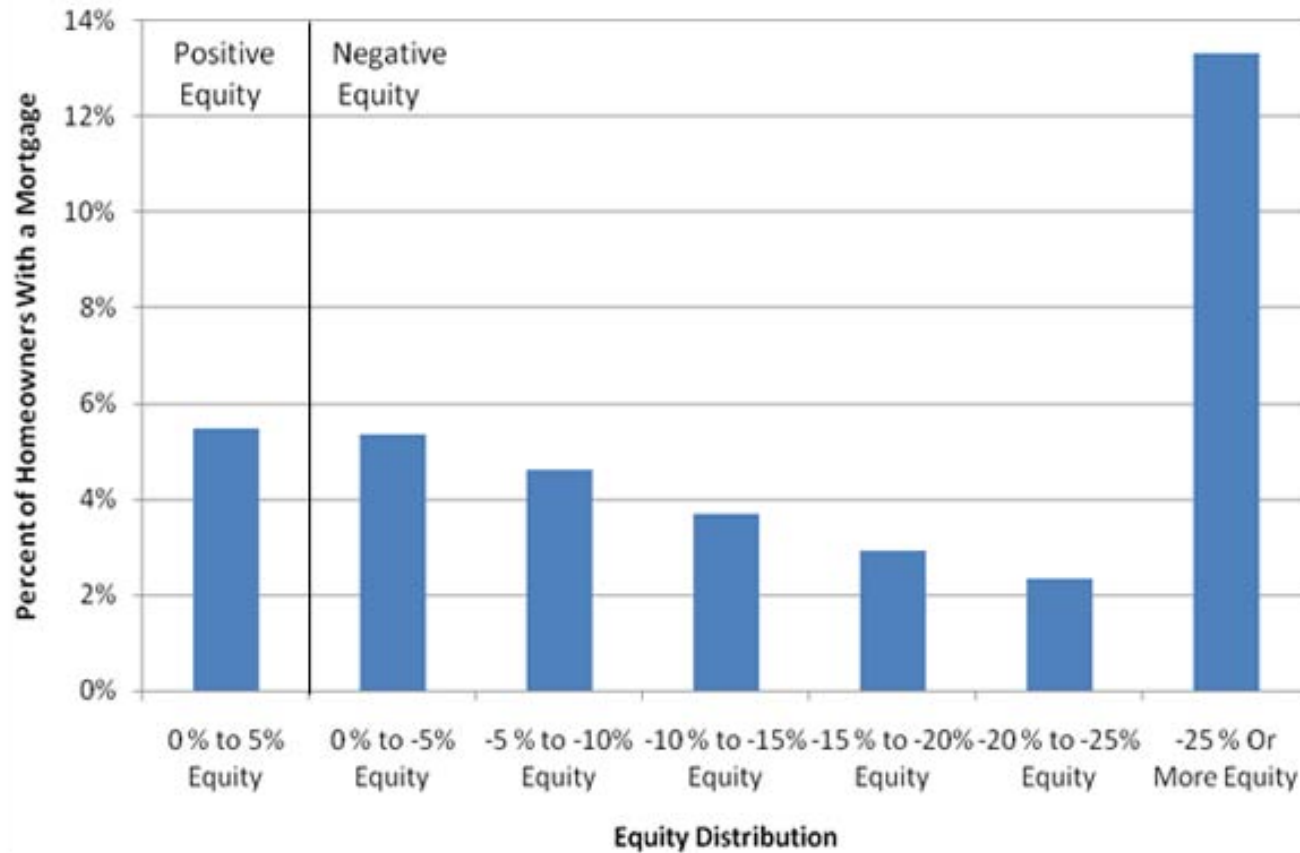


Source: Loan Performance and UBS



Distribution of Homeowner Equity

Figure 1: Distribution of Homeowner Equity



Source: First American Core Logic



Government Programs Have Had Little Impact So Far

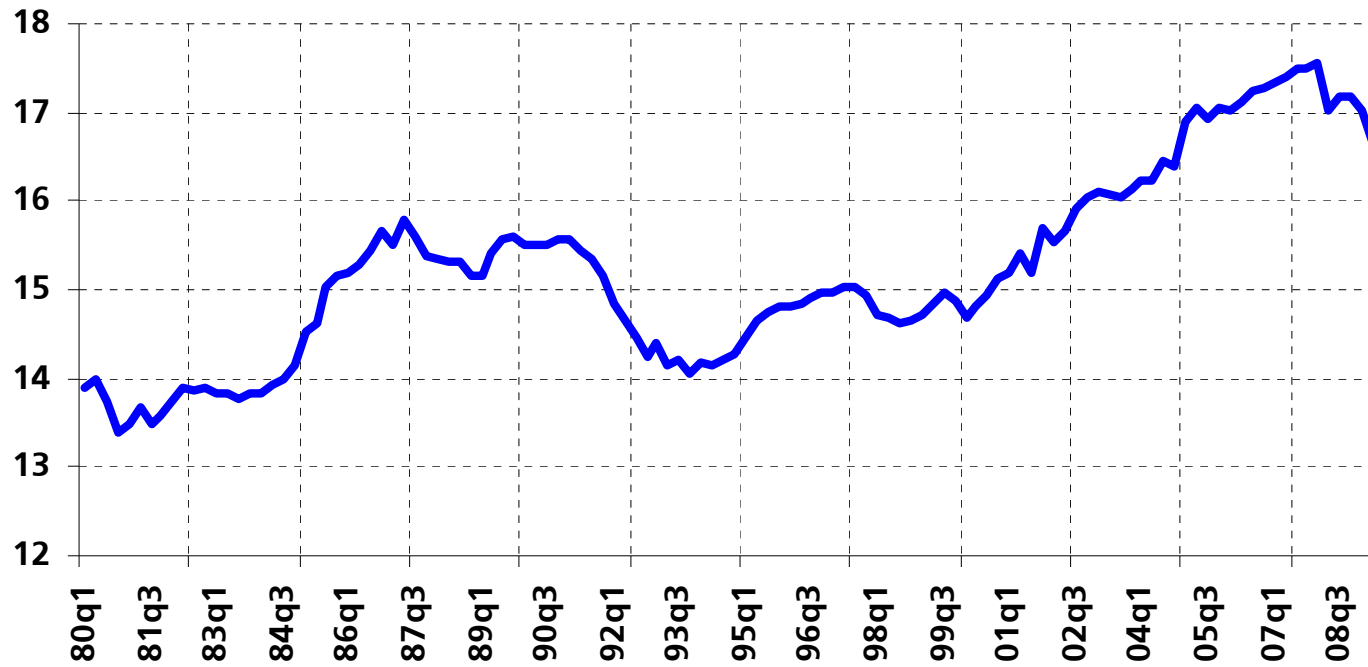
Effectiveness of HAMP remains to be seen.

HAMP

- 500,000 trial mods started by Oct 6, 2009
- Not all trial mods will transition to actual mods
- Default rate is unknown
- HAMP = Option ARM, because in 5 years, the loan resets
- HAMP \neq principal write-down
- New program to encourage short sale if HAMP mod doesn't work

Debt Burden Still Elevated

Financial Obligation Ratio



Source: Federal Reserve Board
Latest Data: October, 2009



In Spite of Fundamentals, Toxic Assets Have Rallied

	Prime		Alt - A		Option Arm	ABX	
	Hybrid	30 Yr Fixed	Hybrid	30 Yr Fixed	Super Senior	06.2 PEN	06.2 LCF
Jan 2008	97	97	97	87	76	n/a	86.3
March/April Low -2009	47	55	38	42	30	53	29
Sep. 30, 2009	74	84	63.5	69	49	71.7	41.8
% Change March/April Low to Sep 30	57%	53%	67%	64%	63%	35%	44%

Source: First American Core Logic



1-4 Family Mortgages Outstanding

1-4 Family Mortgages Outstanding

(Dollars In Millions)

Year/Qtr. End	Ginnie Mae MBSs	Freddie Mac 1-Fam PC	Fannie Mae 1-4 Family	Non-Agency MBS	Total MBS	Portfolio Holdings	Total Mortgages Outstanding	% of Total Mortgage Outstanding	
								Total MBS	Portfolio Holdings
2000	\$611,553	\$859,473	\$1,152,950	\$377,500	\$3,001,476	\$2,108,824	\$5,110,300	59%	41%
2001	\$591,368	\$981,586	\$1,392,278	\$463,200	\$3,428,432	\$2,252,468	\$5,680,900	60%	40%
2002	\$537,888	\$1,109,182	\$1,634,581	\$543,600	\$3,825,251	\$2,612,249	\$6,437,500	59%	41%
2003	\$473,738	\$1,177,262	\$2,115,410	\$666,400	\$4,432,810	\$2,784,490	\$7,217,300	61%	39%
2004	\$441,235	\$1,217,218	\$2,141,319	\$1,048,600	\$4,848,372	\$3,403,828	\$8,252,200	59%	41%
2005	\$405,246	\$1,341,808	\$2,126,316	\$1,621,900	\$5,495,270	\$3,868,130	\$9,363,400	59%	41%
2006	\$410,196	\$1,489,630	\$2,277,365	\$2,141,300	\$6,318,491	\$4,104,809	\$10,423,300	61%	39%
2007	\$443,461	\$1,752,764	\$2,615,433	\$2,172,200	\$6,983,858	\$4,128,642	\$11,112,500	63%	37%
1Q08	\$461,481	\$1,798,615	\$2,697,608	\$2,104,800	\$7,062,504	\$4,111,296	\$11,173,800	63%	37%
2Q08	\$471,154	\$1,837,071	\$2,799,982	\$2,018,400	\$7,126,607	\$4,029,593	\$11,156,200	64%	36%
3Q08	\$537,384	\$1,851,888	\$2,807,581	\$1,940,700	\$7,137,553	\$3,963,447	\$11,101,000	64%	36%
4Q08	\$597,206	\$1,850,425	\$2,841,099	\$1,852,800	\$7,141,530	\$3,862,370	\$11,003,900	65%	35%
1Q09	\$639,540	\$1,870,443	\$2,870,383	\$1,770,400	\$7,150,766	\$3,843,034	\$10,993,800	65%	35%
2Q09	\$699,268	\$1,886,638	\$2,994,248	\$1,680,500	\$7,260,654	\$3,690,446	\$10,951,100	66%	34%

Source: GNMA, FNMA, FHLMC, Federal Reserve Board, Inside Mortgage Finance
Latest Data: Q2, 2009



Lessons of the Bubble and Crisis

- ◆ Regulation is necessary, not sufficient, to prevent bubbles and another crisis.
- ◆ Bank regulatory pluralism can be a valuable safety net, not necessarily evidence of faulty design.
- ◆ Government is good at some tasks, awful at others.
 - Good job on bank liquidity/Terrible at helping housing industry recover.
- ◆ As usual, pendulum swings too far. Example - new controls on consumer credit:
 - Bank regulators have required banks to base mortgage lending on a “fully indexed, fully amortized” basis since September 2007. That stopped most flagrant subprime and Alt-A lending.
 - Federal Reserve amendments to Reg Z will also restrict types of mortgage loans banks and other institutions can originate.
 - New credit card rules have stopped most egregious bank policies.
 - Consumer Financial Protection Agency?
 - Preemption of Federal rules by State rules?

Lessons of the Bubble and Crisis – (cont'd)

- ◆ People will always be hypocritical and short-sighted.
 - After the crisis is over, OK to pummel Fed, banks, Treasury, etc.
- ◆ When things appear too good to be true, believe it!! They really are.