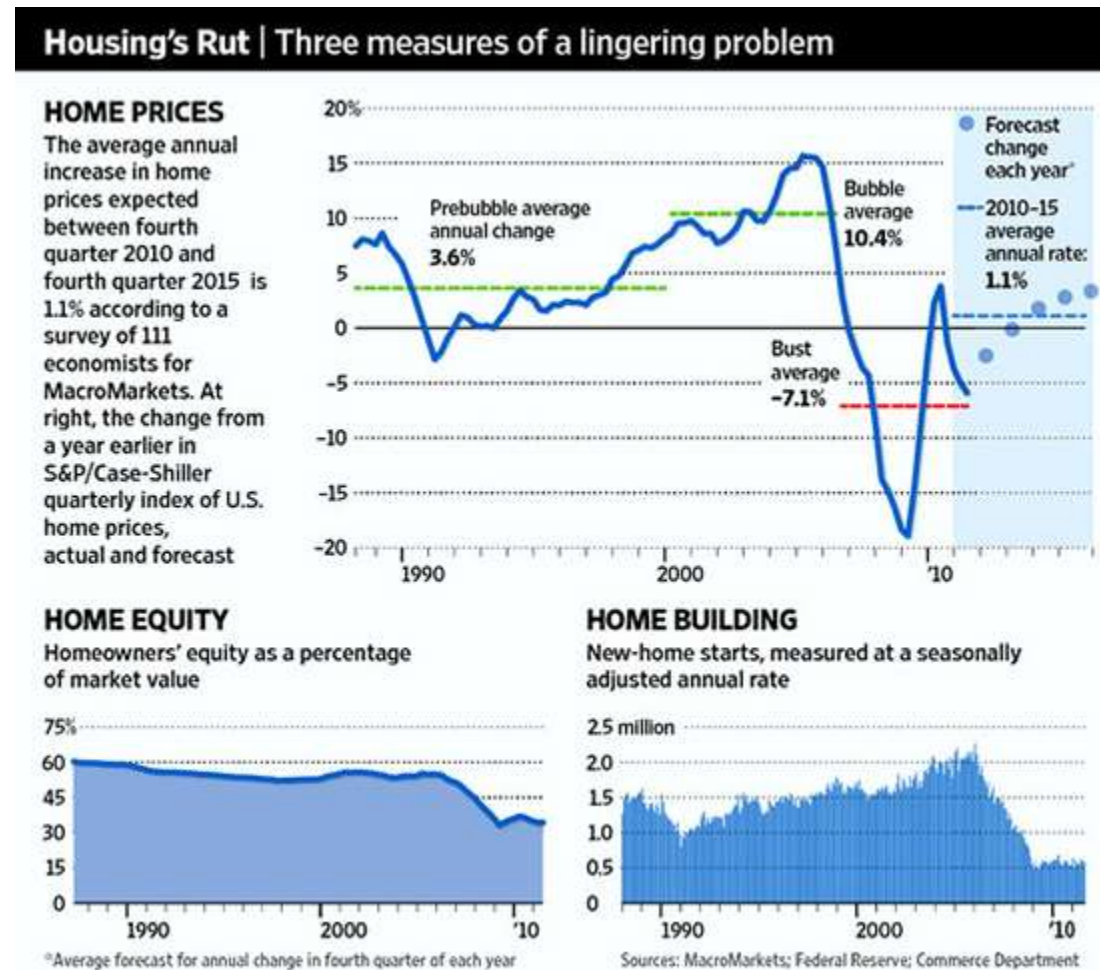


A Brief History of the Housing Bubble

From 2003 to 2006, American lenders and borrowers inflated a massive housing bubble. From 2007 to 2012, this bubble has been deflating, but the bottom is proving elusive. The housing market is closer to the bottom than to the top, and if a viable solution can be found to bring supply and demand into balance, the tremendous affordability from low prices and low interest rates will help a bottom form in the near term.

The conditions preceding the housing bubble, serve as a baseline to establish a sense of normalcy, a guidepost to stable valuations. When the distortions of value due to the housing bubble are corrected, the preceding conditions will be restored.

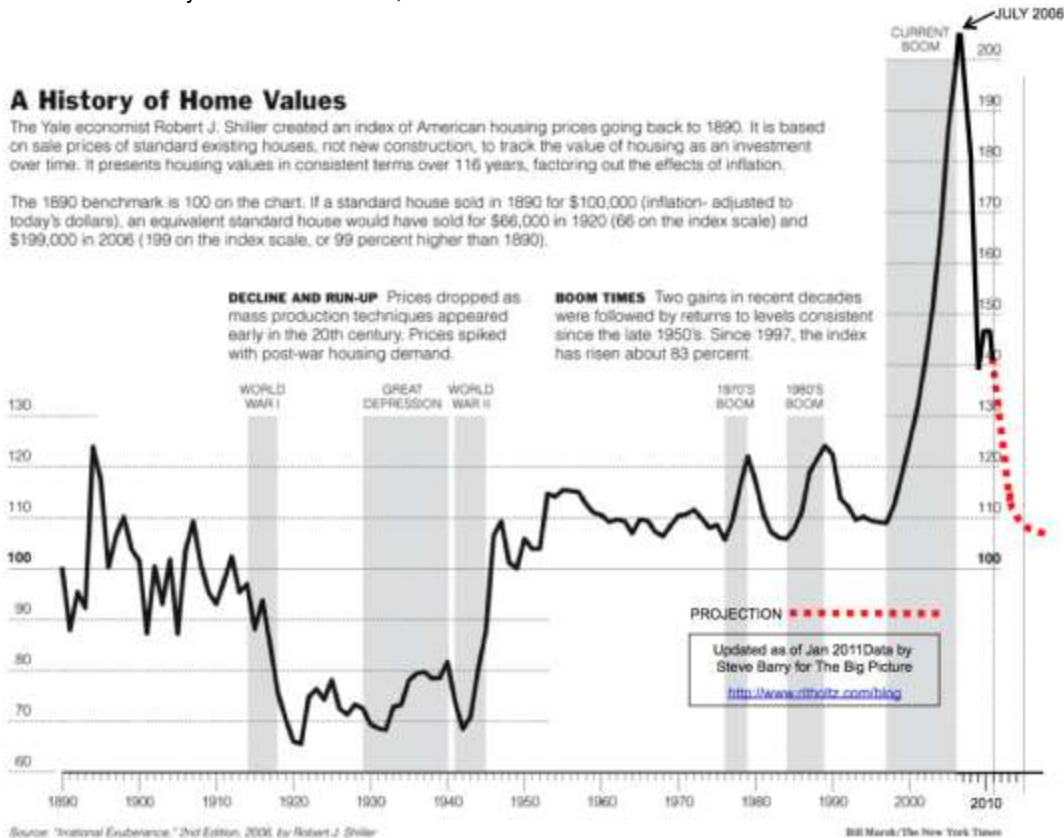


Stable Market Conditions 1993-2002

The period from 1993 to 2002 is a useful decade to analyze for purposes of establishing normalcy in the housing market. For most of the country, this was an unremarkable period of gently rising prices as a response to wage growth and inflation in various markets. In California and select East Coast markets, this period represents the tail end of the previous housing bubble, the bottoming period, and the initial stages of the great housing bubble of the 00s. A variety of useful market data is available for this period for analysis.

The housing bubble was not without precedent in recent history. In the late 1970s and the late 1980s both witnessed minor housing bubbles. In California in particular these bubbles were quite large, and they both served to create a false sense of value in the minds of housing consumers. Most people in California believe they can become rich by owning residential real estate. Despite the cycles of boom and bust, most Californians continue to see residential real estate as a source of no-risk high-yielding returns. Hope springs eternal.

Figure 1: Inflation Adjusted Home Prices, 1890-2010



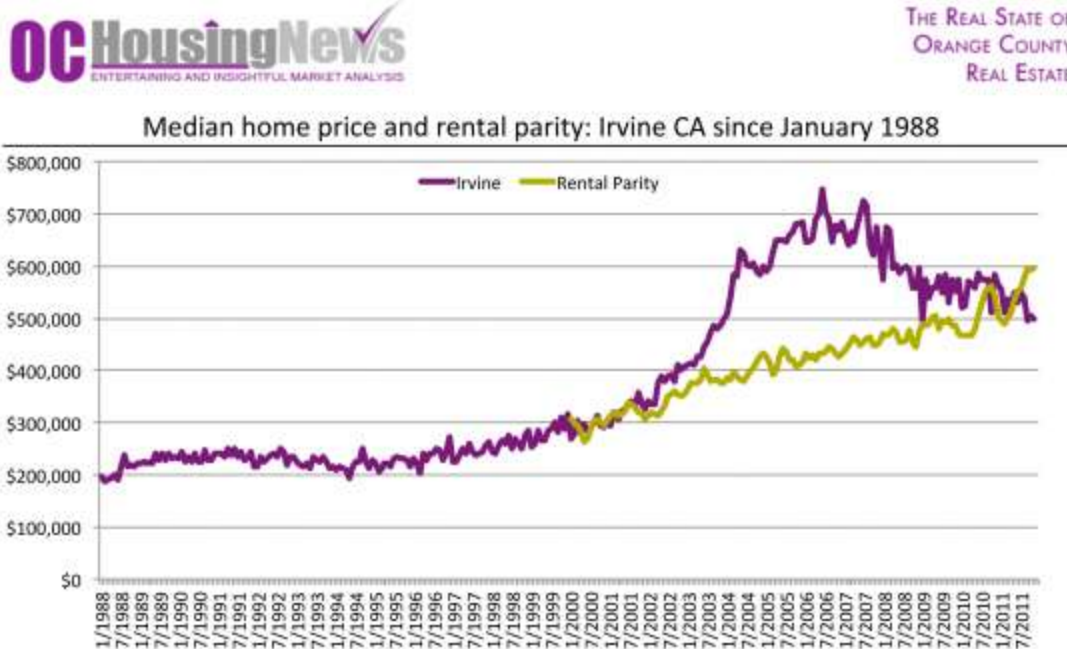
Rental Parity Is Fundamental Value

Rental parity is a mathematical relationship between rental rates and property values where rent is equal to the monthly cost of ownership. The relationship between rents and prices provides a conceptual understanding of value. Rental rates establish where property values should be. Rental Parity is a balance point where there is no financial advantage to choosing renting or owning, a point of theoretical indifference.

If we had a group of theoretically indifferent people who always acted rationally based on perfect information, prices would always be at rental parity; any price below rental parity would be perceived a bargain and bid upward, and any price above rental parity would be perceived as too high, and there would be no bid interest. In the real world, people are not indifferent; in fact, they can become very emotional about buying and selling real estate. When they participate in a market, they get caught up with the herd and move prices without regard to fundamentals; short-term price movements become accepted as the market's long-term trajectory. People believe trees really can grow to the sky.

Rental parity becomes a baseline — a fundamental. Prices are loosely tethered and may depart for long periods, but prices always manage to return to rental parity in time because as a logical point of indifference; it is the natural resting point for a market purged of irrational exuberance.

Figure 2: Median Home Price and Rental Parity in Irvine, CA, 1988-2011



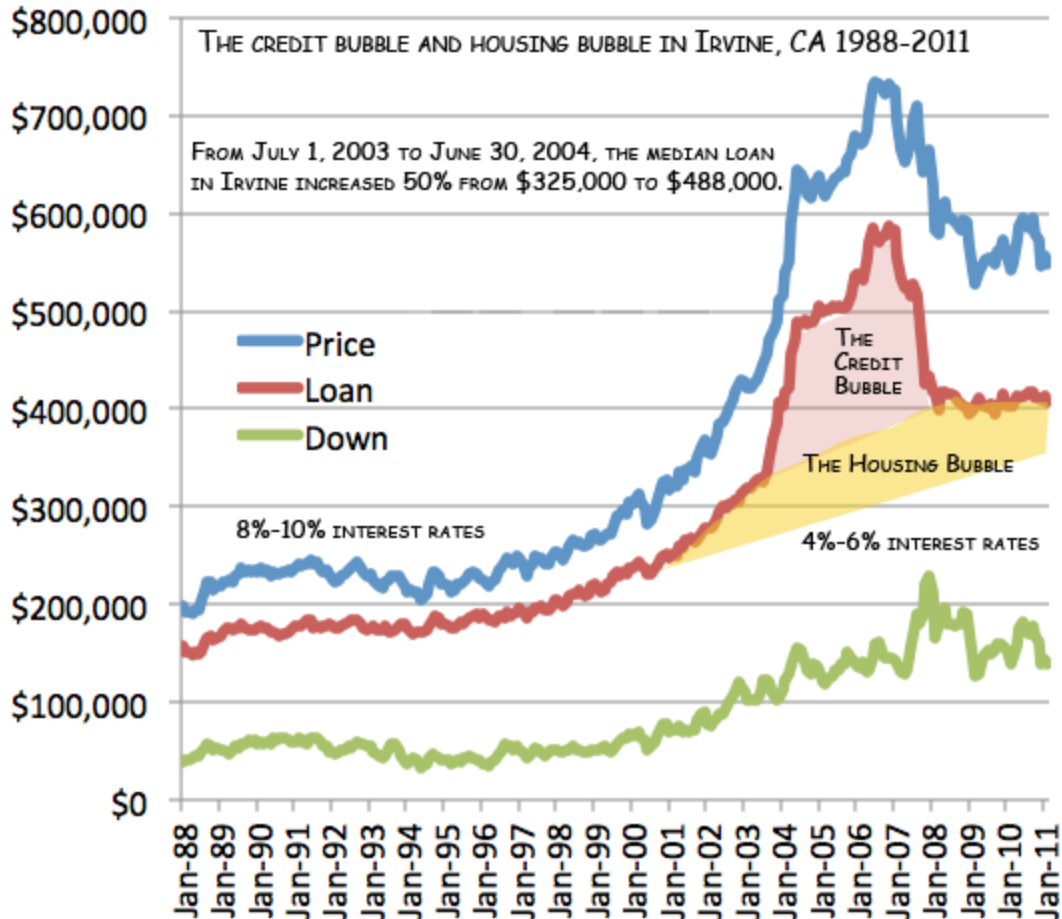
Rental parity relates the micro-economic decisions of individuals to the macro-economic forces in the market. In a housing market dominated by conventional financing (thirty-year fixed-rate mortgages with conventional amortization), rental parity is the best measure of value available.

The Housing Bubble Rally 2003-2006

By late 2002 many markets were overheating, and lenders sought solutions to keep activity high despite inflated prices. Their “innovative” solutions involved moving away from the thirty-year fixed-rate amortizing mortgage to products with adjustable rates, and either no amortization or negative amortization. Since any terms other than amortizing fixed-rate mortgages are unstable, lenders embarked on a Ponzi Scheme. Each “innovation” was more risky than the last, and only continually rising prices fueled by their own unstable lending kept the system going.

From 2003 to 2006, prices went up at unprecedented rates with no identifiable underlying fundamentals. Many economists tried to gloss over the price increases with arguments about job growth, low interest rates, and changes in consumer preferences for housing, but they all ignored the obvious distortions readily observable in conventional measures of value and the nearly vertical rise in prices corresponding to the widespread use of unconventional loan products.

Figure 3: The Credit Bubble and Housing Bubble in Irvine, CA 1988-2011



The unstable loan programs alone were not sufficient to create the housing bubble. The secondary loan market and securitization provided a conduit for money to flow into the market. Credit default swaps gave lenders and investors a false sense of security which permitted them to misprice risk, and with the low interest rates policy of the Greenspan Federal Reserve in response to the collapsing stock market bubble, capital poured into residential mortgages as a high yield alternative.

With unstable loan programs and a strong desire among investors to fund them, loan originators were under enormous pressure to meet the demand for mortgages. In response, they lowered loan qualification standards to near zero with such “innovative” programs as NINJA loans (no income, no job, no assets) and liar loans (stated income).

Borrowers are already prone to take any loan offered to them, and with the prospect of unlimited wealth in real estate, anyone with a dream and a pulse signed up with a toxic loan to buy houses at ever-increasing prices so they too could make a fortune in real estate. Like all Ponzi Schemes, this one went until no buyers remained. It was a self-fueling process that finally ran out of greater fools in late 2005.

Figure 4: Existing Home Sales 1994-2011



The Credit Crunch and Market Crash 2007

Since the loan terms of the housing bubble were unstable, and since the problems were only masked by the rapid appreciation caused by the introduction of the unstable loan programs, once prices began to fall, it was only a matter of time before borrower defaults began to cause lender losses. Once lenders started losing money, they stopped lending: a credit crunch.

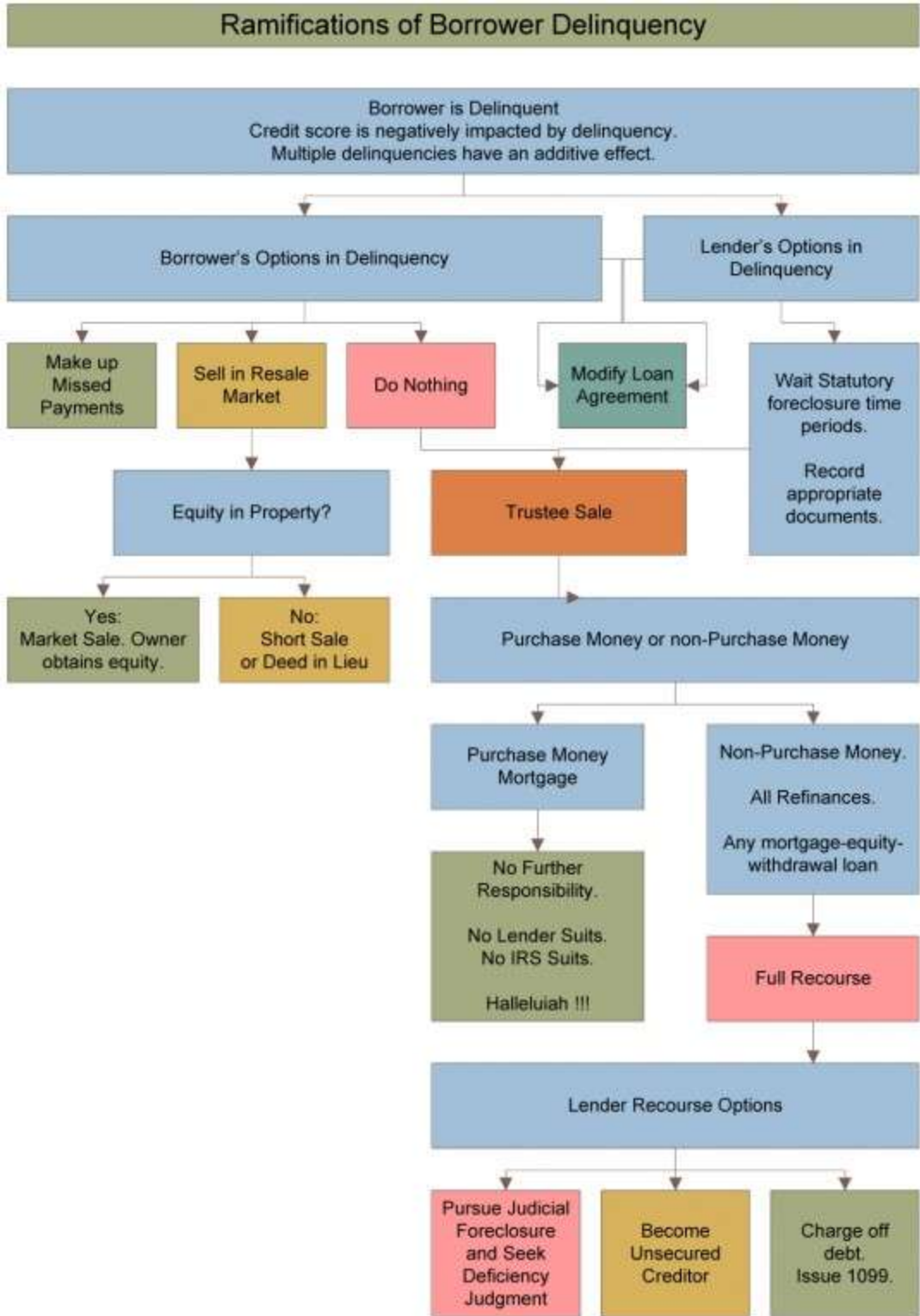
Since the debt loads were much higher than what could be sustained by incomes, and since the borrower pool was compromised by degraded lending standards, many borrowers were insolvent and unable to service the debt or repay the principal. The elimination of unstable loan programs (Option ARMs and interest only loans) caused loan balances to drop 40% in a very short period. Sales volumes plummeted and prices soon followed.

Falling prices made it impossible for borrowers to sell the house for enough to repay the debt, so lenders began losing their capital. This exacerbated the credit crunch as caused an abrupt stop to nearly all private mortgage lending.

Ramifications of Borrower Delinquency

Following is an outline of the options and consequences for delinquent borrowers.

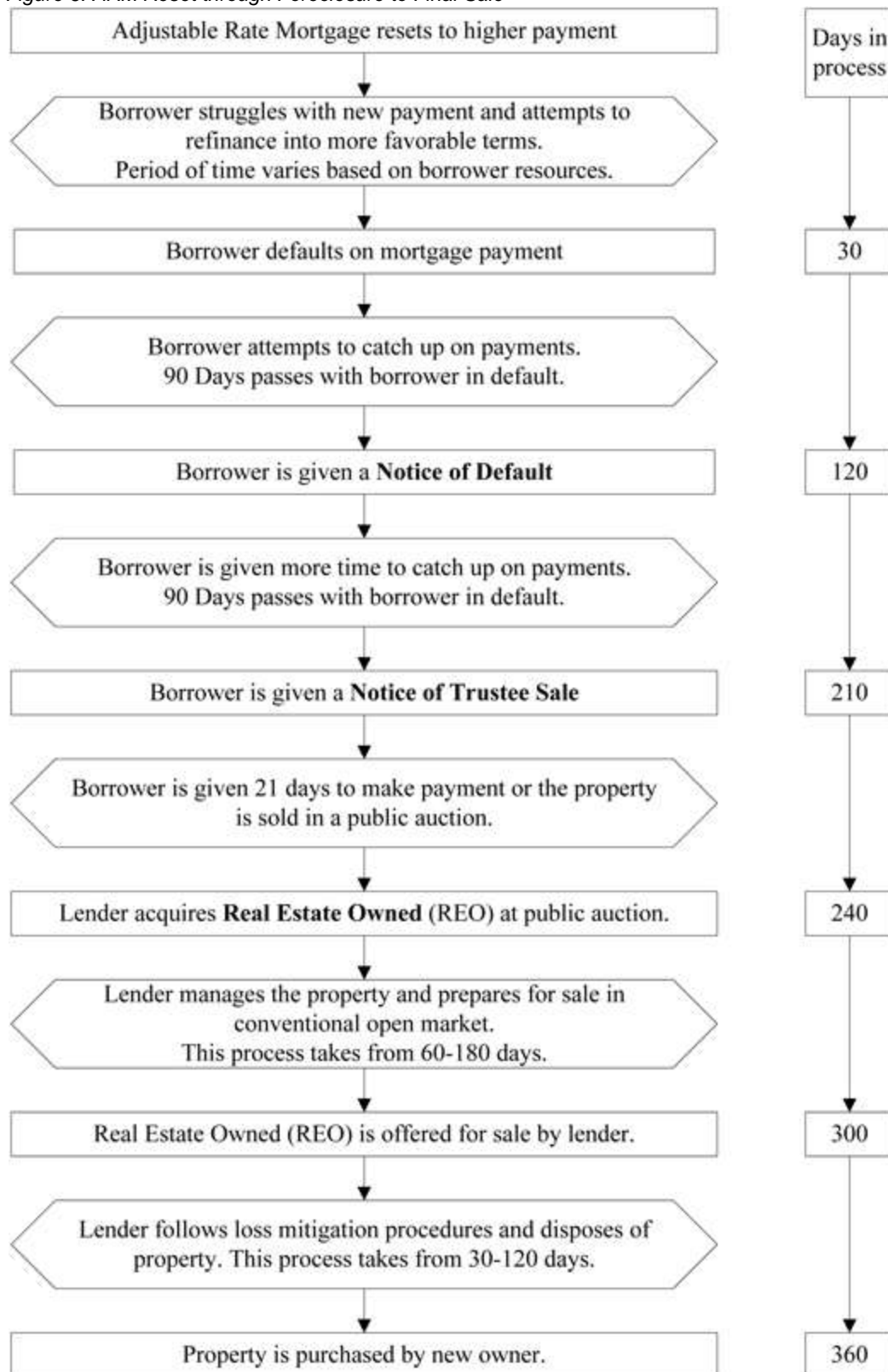
Figure 5: Ramifications of Borrower Delinquency



The Timing of Default and Foreclosure

With a dramatic increase in loan delinquencies, lenders began a plethora of loan modification and other programs to prevent foreclosures. These programs have largely failed to prevent foreclosure, but they have been somewhat successful in delaying them. Most insolvent borrowers ended up going through the foreclosure process.

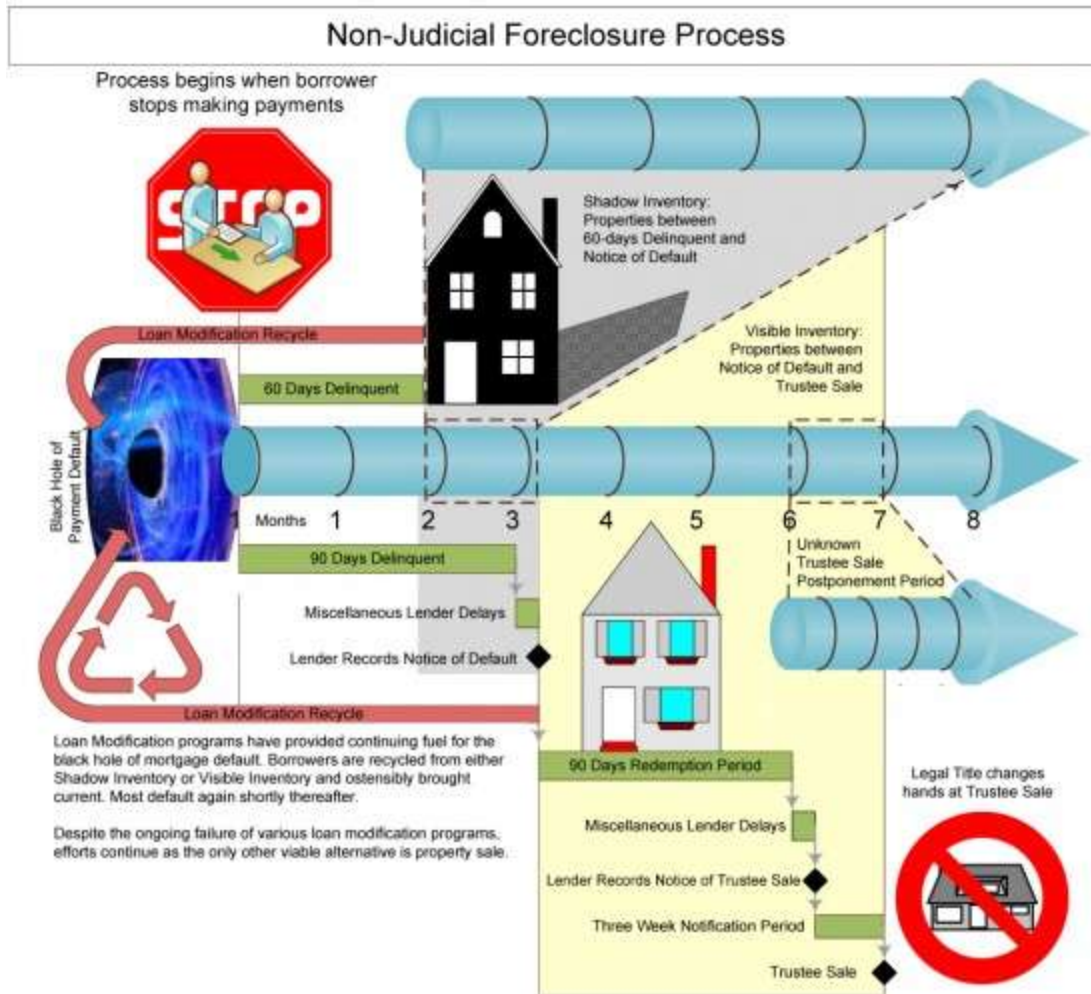
Figure 6: ARM Reset through Foreclosure to Final Sale



Once a borrower defaults on a loan, in most states the lender is required to wait 90 days to give the borrower a chance to get current on their payments. Once a borrower is 90 days late, he receives a Notice of Default from the

lender. Following the Notice of Default, there is another 90-day window where the borrower can make good on their payments. If he is unable (or unwilling) to do so, the lender will file a Notice of Trustee Sale and schedule a public auction for 21 days later. If the borrower cannot pay back the loan or find other ways to delay the process, the property is put up for public auction, generally on the courthouse steps in the jurisdiction where the property is located. At this auction, the lender will generally bid the amount of the outstanding loan and hope another party bids more and pays them off. If the lender is the highest bidder, which is often the case, the lender ends up owning the house.

Figure 7: Non-Judicial Foreclosure Process



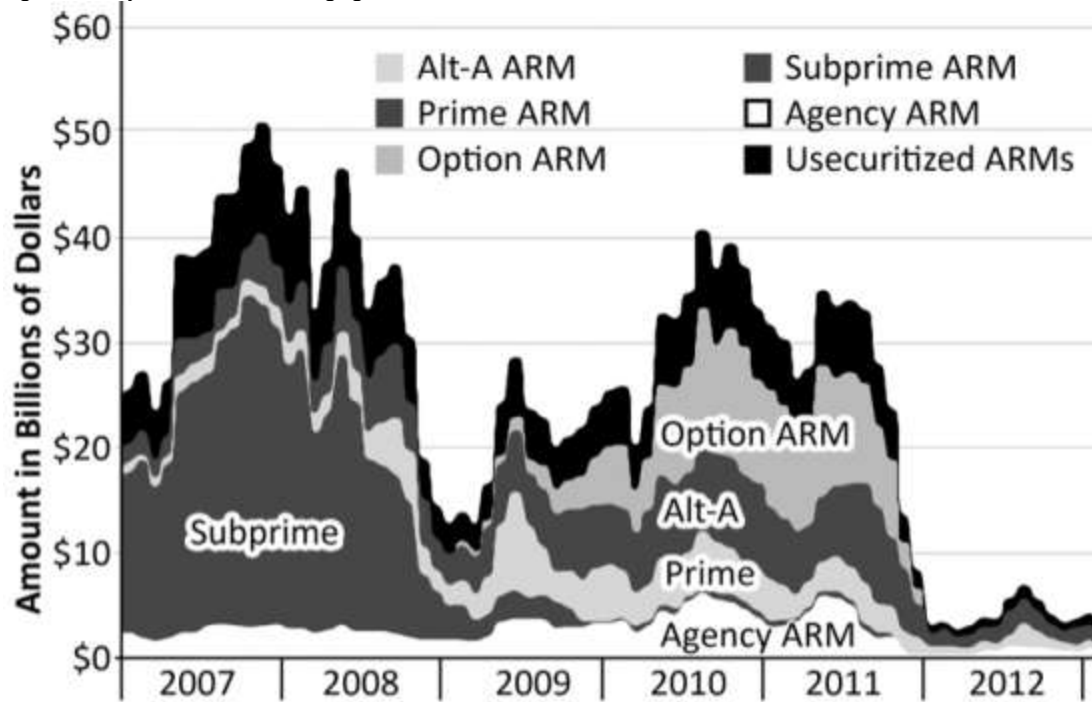
In a normal market delinquencies over 90 days are issued a Notice of Default, but with the surge of delinquencies in the housing bubble, this timeline has been extended for years. The delinquent borrowers not yet served a Notice of Default are shadow inventory.

Subprime: The First Wave of Distressed Inventory 2008

The Adjustable Rate Mortgage Reset Chart produced by Credit Suisse in 2007 details the dollar amounts of mortgages facing payment resets in the six years from 2007-2012. The bulk of the first two years (24 months on the chart) are loan resets from subprime borrowers who purchased in 2005 and 2006. These subprime borrowers paid peak prices for properties. Most of these borrowers were given 100% financing (if they could have saved up for a downpayment, they probably would not have been subprime,) and they were often only qualified based on their ability

to make the initial payment rather than on their ability to make the payment after the reset. There was a special loan program called a 2/28 that most subprime borrowers purchased. This loan fixed a payment for two years; afterward, the payment would increase to a higher interest rate and on a fully-amortized schedule over the remaining 28 years. The payment shock was extreme. This created a condition where most subprime borrowers could not refinance or make their payments, and many of these borrowers defaulted on their loans. Data from early 2008 showed the 2006 and 2007 vintage of subprime loans default rates running close to 50%, and this was before the resets were coming due. Most of these subprime borrowers who went into default lost their properties in foreclosure, and these foreclosures were added to the supply of an already overwhelmed real estate market.

Figure 8: Adjustable Rate Mortgage Reset Chart



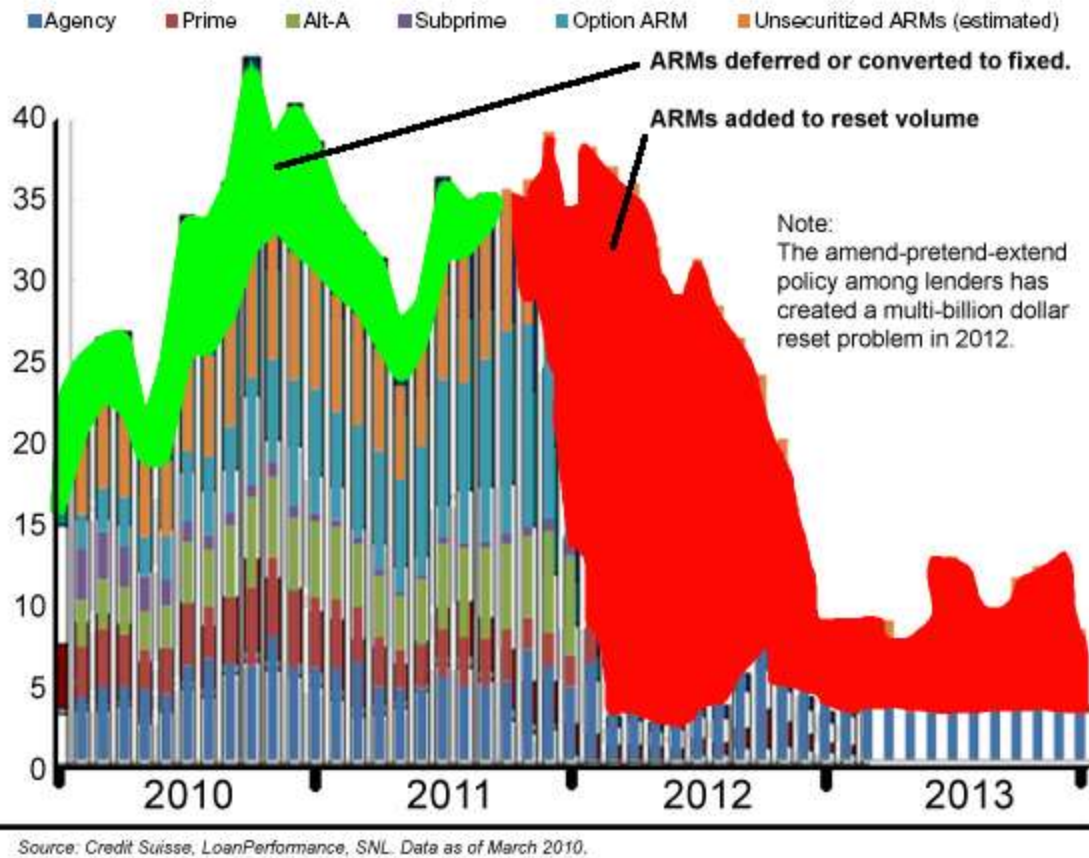
Note: Data as of January 2007

Source: Credit Suisse Fixed Income U.S. Mortgage Strategy.

Since the subprime resets came first, borrowers in areas dominated by subprime were foreclosed on first. The resulting carnage dropped prices 30% or more in some areas and prompted waves of strategic defaults by borrowers who lost hope of ever regaining equity in their properties. As a result, when the larger Alt-A and jumbo loans issued as adjustable rate mortgages were due to reset, lenders chose not to foreclose. As a result, many delinquent borrowers were allowed to squat in houses they still technically owned, but in which they had no equity and were not making payments.

Figure 9: Updated Adjustable Rate Mortgage Reset Chart – March 2010

Adjustable Rate Mortgage Reset Schedule Updated March 2010

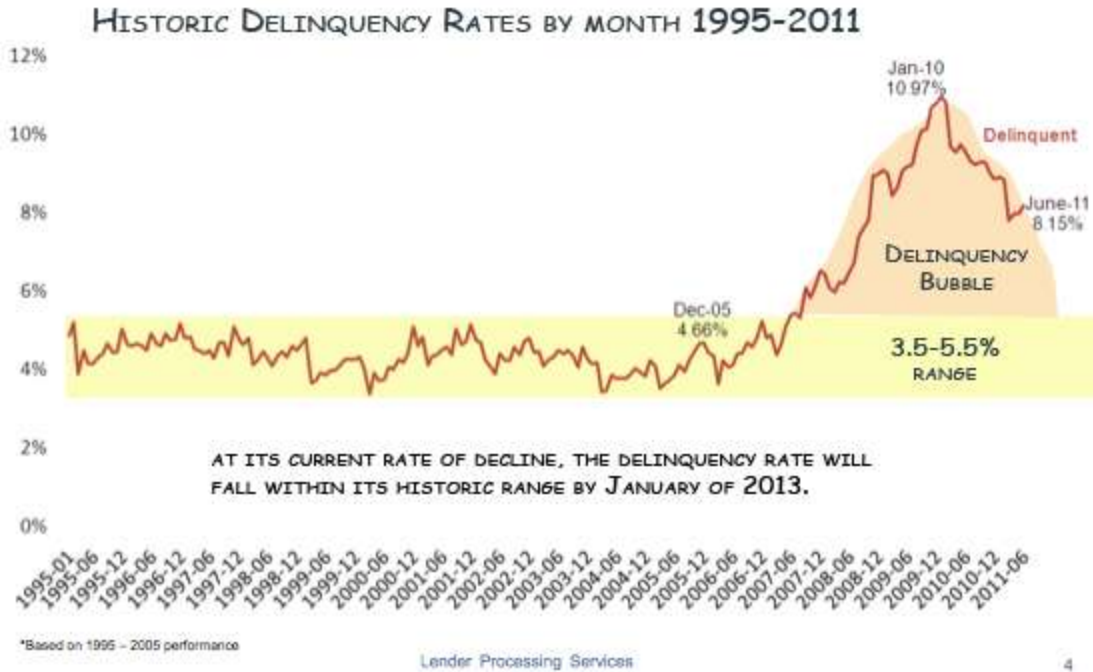


False Stabilization Through Demand Stimulus and Supply Management 2009

As private lending retreated the government decided to step in by taking Freddie Mac and Fannie Mae into conservancy and ramp up its lending at the Federal Housing Authority. By the end of 2008 the federal government directly insured nearly 98% of the mortgage market. To further support the market, the government implemented a tax incentive program where borrowers could obtain an \$8,000 tax credit for purchasing a home. Also, the Federal Reserve embarked on an unprecedented program of buying mortgage-backed securities. They paid prices the private sector would not in order to drive down the interest rates on residential mortgages and increase loan balances.

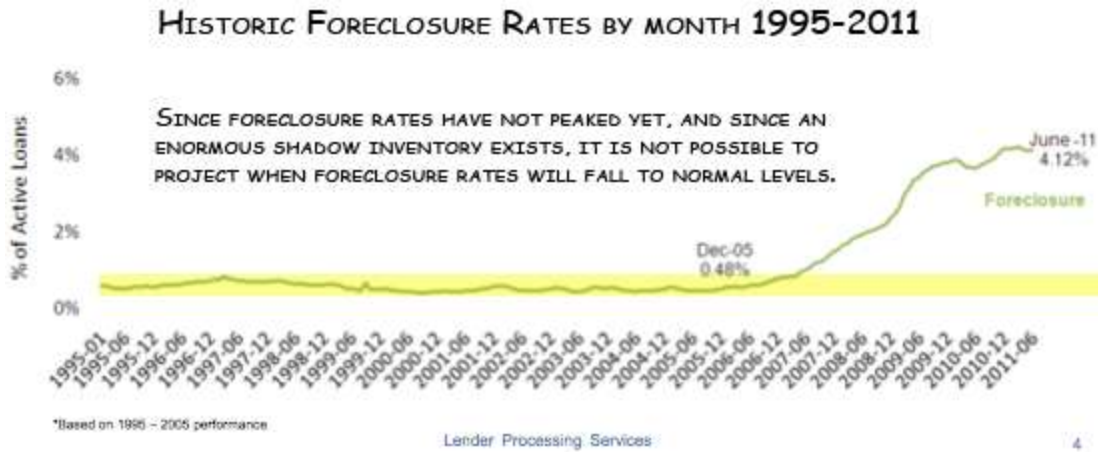
Despite the heroic efforts to stimulate demand, the supply of delinquent borrowers destined to become foreclosures and later REO needing liquidation greatly exceeded the demand. Prices crumbled.

Figure 10: Historic Delinquency Rates 1995-2011



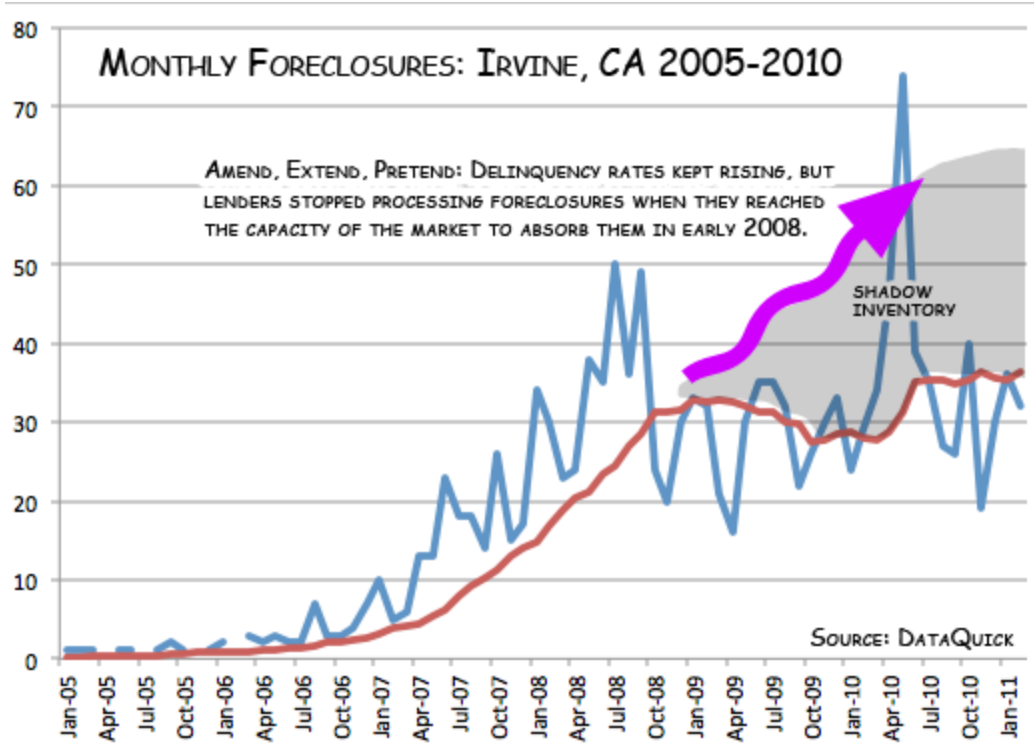
In early 2009 lenders slowed their rates of foreclosure to balance supply with demand in an effort to stabilize prices. Since this disconnected delinquency rates from foreclosure rates, many borrowers who were delinquent were not pushed through foreclosure. Shadow inventory was born.

Figure 11: Historic Foreclosure Rates 1995-2011



In nearly every housing market across the country in early 2009, lenders slowed foreclosures and began building shadow inventory.

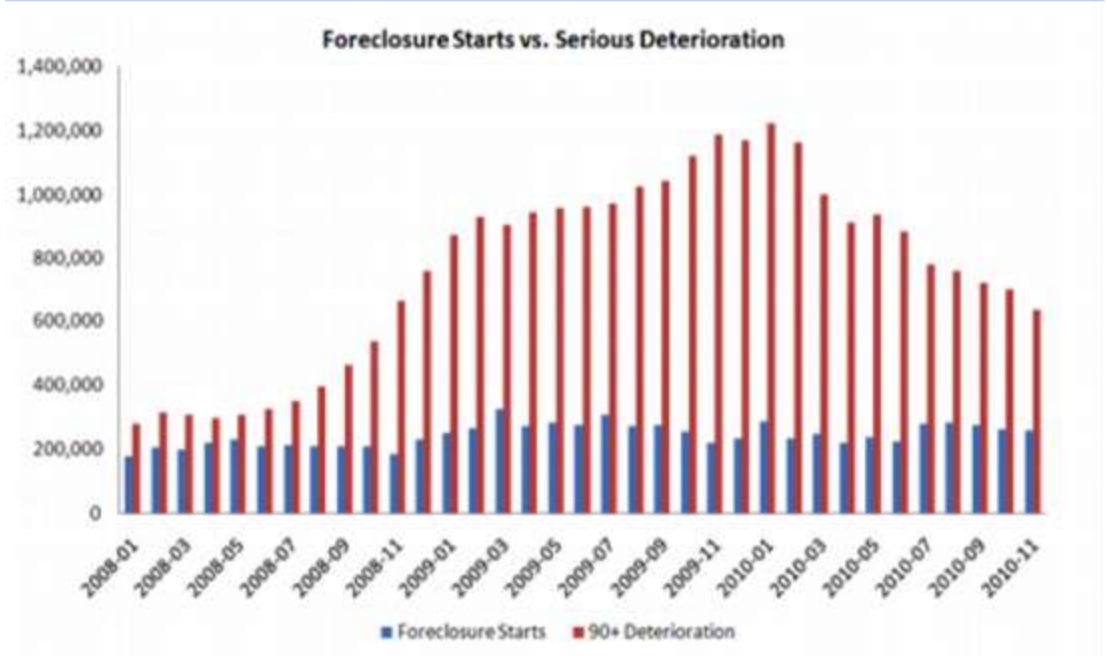
Figure 12: Monthly Foreclosures, Irvine, CA 2005-2010



Shadow inventory is a result of the disconnect between delinquency and foreclosure.

Figure 13: Foreclosure Starts Versus Serious Delinquencies

The volume of loans rolling to seriously delinquent statuses beyond 90 days still far outnumbers foreclosure starts.

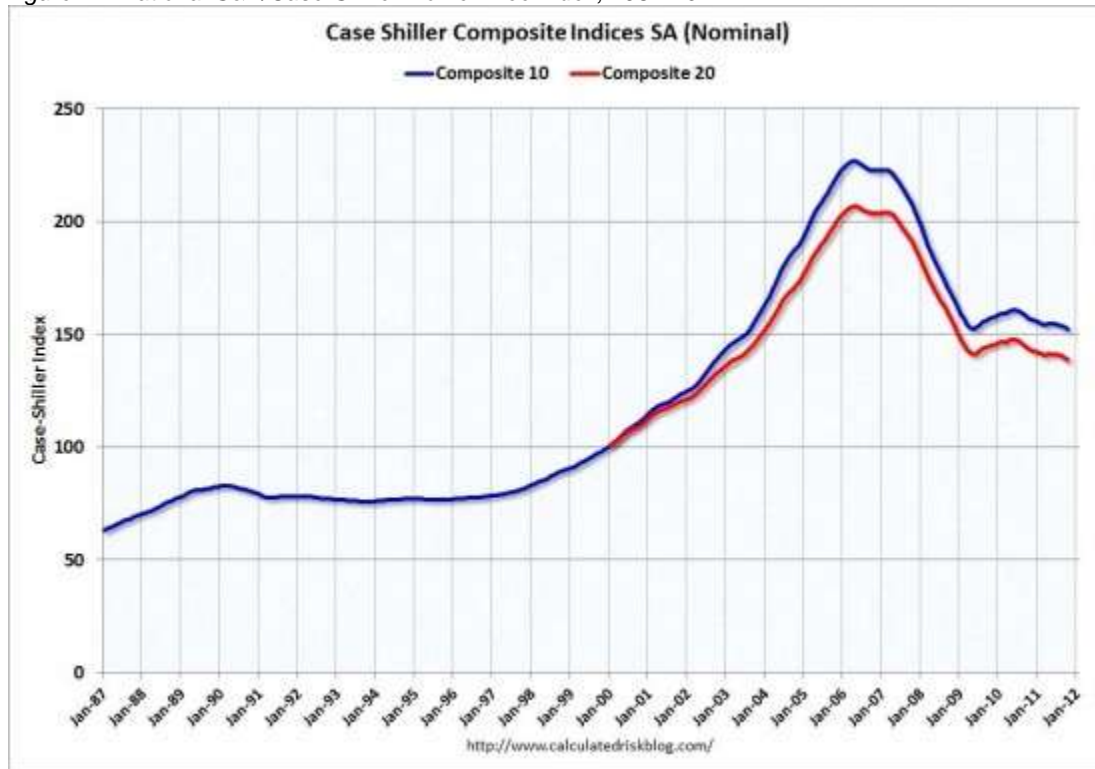


Eventually the shadow inventory must be pushed through the system. Lenders are not going to give away a trillion dollars worth of homes.

Market Double-Dip as Subsidies are Removed 2010-2011

Lenders, the Federal Reserve and the government responsible for the losses at the GSEs and FHA were all hoping the engineered bottom they created in 2009 would provide the market momentum that would carry forward. This was never a realistic possibility. In many markets prices were still inflated in 2009, and with the overhang of distressed inventory on the MLS, in the foreclosure pipeline and waiting in shadow inventory, and the depleted buyer pool needed to absorb this inventory, there was little chance of the market props forming a durable bottom.

Figure 14: National S&P/Case-Shiller Home Price Index, 1987-2011

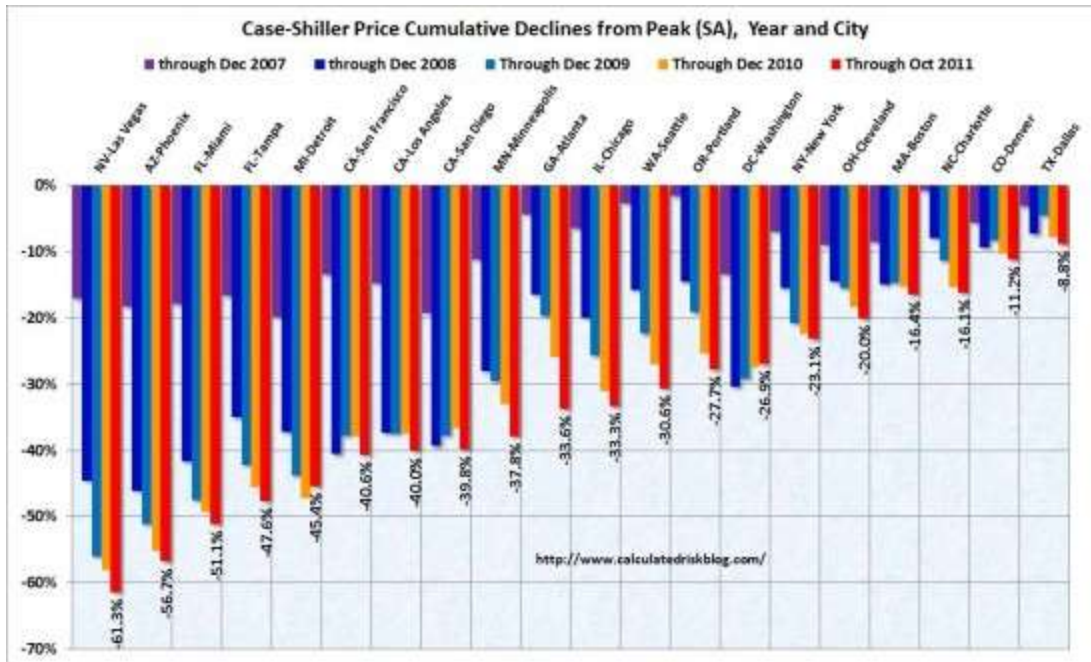


The double-dip represents the second phase of the housing bubble deflation. The first phase was the removal of the toxic financing and government props. The second phase is the liquidation of supply left over from the debacle.

An uneven market decline

Because of differences in where subprime loans were concentrated, housing markets all over the country have declined at different rates. Contrary to popular belief, this is not because borrowers in prime areas were not experiencing mortgage distress. In many locations, the delinquency rates among high wage earners is actually higher than their subprime counterparts, but these borrowers have been allowed to squat in shadow inventory as banks hope to keep house prices up in those areas to increase their capital recovery when they do foreclose.

Figure 15: Price Declines by MSA from Housing Bubble Peak

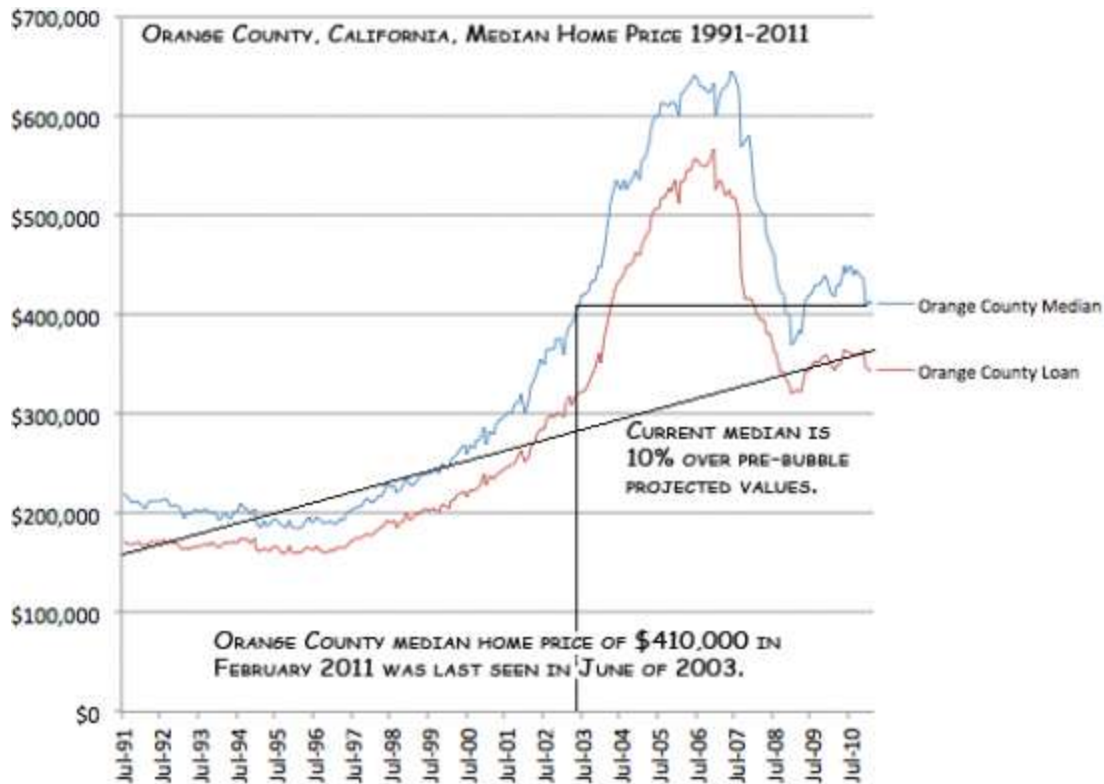


The uneven nature of the market decline can be illustrated by comparing Orange County, California, to Clark County, Nevada.

Orange County, California

Orange County is characterized by large amounts of Alt-A and jumbo loans with relatively little subprime. The subprime areas in Santa Ana have fallen precipitously, but the prime areas have held up as delinquent borrowers live in their homes without making payments.

Figure 16: Orange County, CA, Median Home Price, 1991-2011



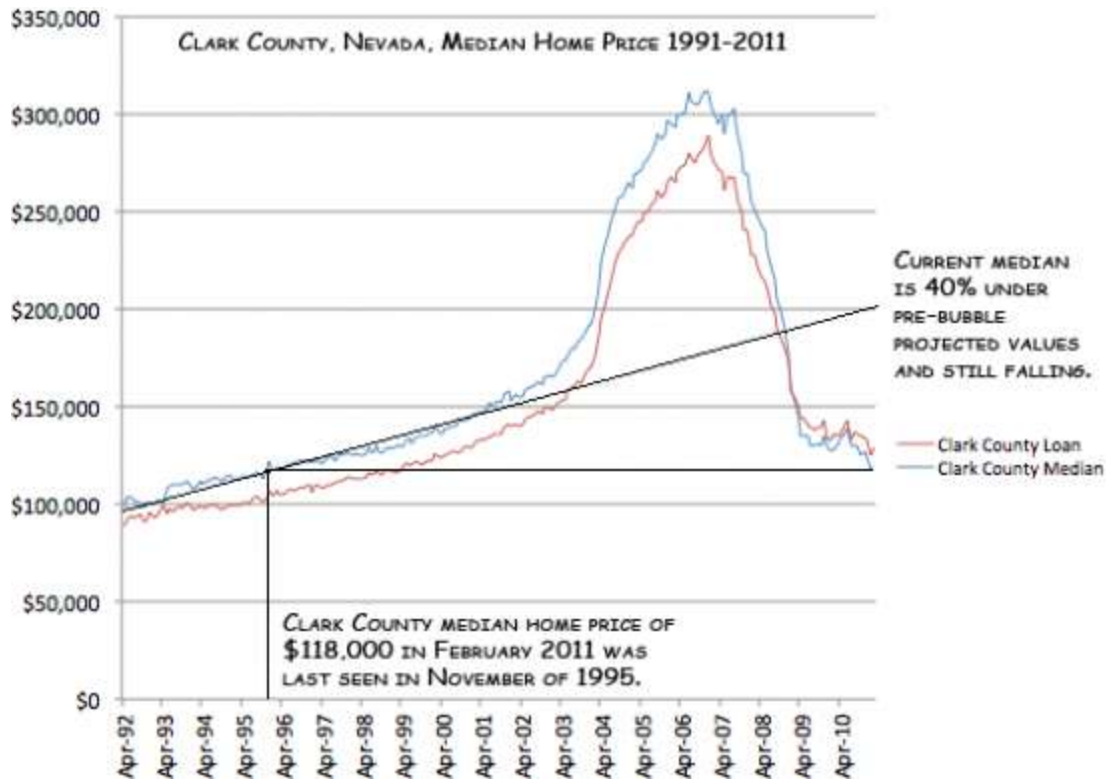
Orange County and other coastal markets have not finished deflating from the housing bubble. Rather than a sign of market strength, the markets that have fallen the least have the most danger of further declines from the liquidation of shadow inventory.

Clark County Nevada

Clark County Nevada is the most extreme bubble crash market. It shows the classic bubble pattern with a severe overshoot of fundamentals to the downside. It represents one of the best opportunity to acquire undervalued assets likely to rise significantly once the overhead supply is worked through the system.

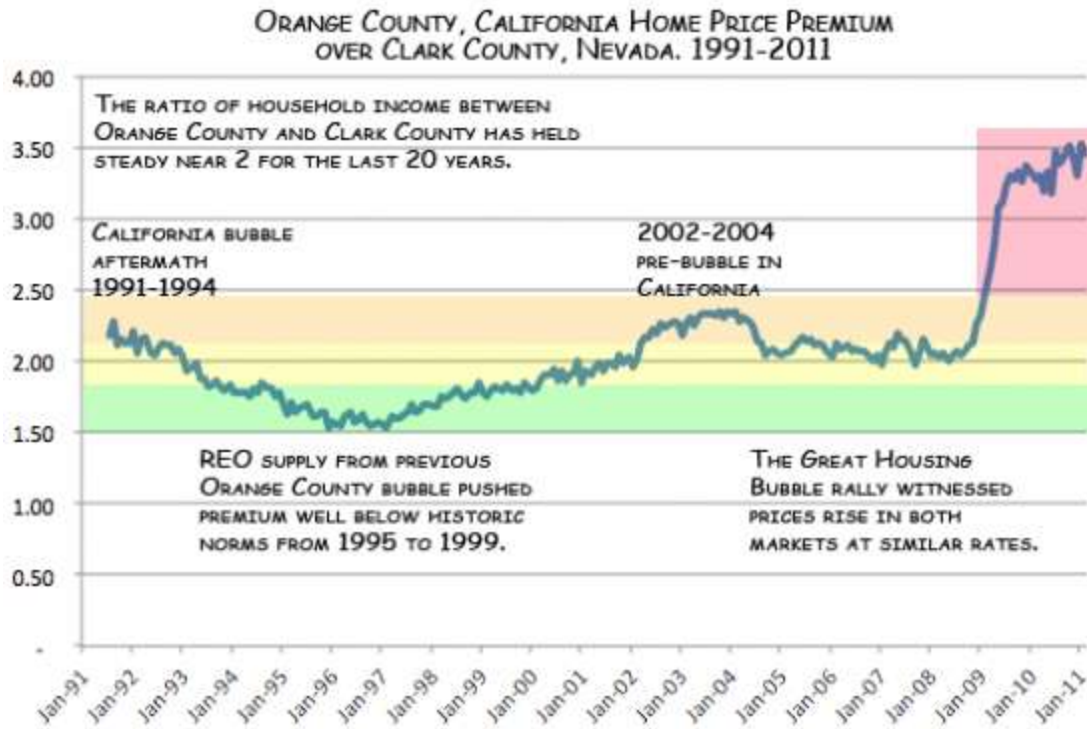
Clark County, Nevada, has unprecedented affordability. Prices are the same as the mid 90s when incomes were less and interest rates were near 10%. It costs less to own a median home in Clark County on a payment basis than it does to lease basic transportation.

Figure 17: Clark County, NV, Median Home Price, 1991-2011



Directly comparing Orange County to Clark County reveals how uneven the crash has been.

Figure 18: Comparison of Orange County, CA to Clark County, NV, 1991-2011



The final chapter of the story of the housing bubble will be about inventory liquidation and a return to normalcy. It may take years to write, but the endgame is near.

Courtesy of OCHousingNews.com