

# Mortgage Liquidity du Jour: Underestimated No More

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## SECTOR REVIEW

### Tightening the Housing Food Chain

In response to the recent turmoil in the mortgage market, we surveyed our private homebuilders and their mortgage lenders to assess the new home market's exposure to mortgage products that are at greatest risk for tightening and increased regulation in the coming months --- it's not just a subprime issue.

We believe that 40% of the market (share of subprime and Alt-A) is at risk of significant fallout from tightening credit and increased regulatory scrutiny. In particular, we believe the most pressing areas of concern should be stated income (49% of originations), high CLTV/piggyback (39%), and interest only/negative amortizing loans (23%). The proliferation of these exotic mortgage products has been disproportionately weighted to former hotbeds such as California, Nevada, Arizona and Florida, which have accounted for the lion share of builder profits.

Major lenders such as Countrywide, Option One and Wells Fargo have already announced plans to discontinue certain high CLTV and stated income loan programs, and over thirty subprime lenders have closed shop since late 2006. In addition, Freddie Mac recently indicated it will cease buying subprime ARMs that qualify buyers at the teaser rate. We take these recent events and conversations with our industry contacts to estimate a total impact to incremental originations of 21%, or an approximate decline of 236,000 new home sales from December's annual pace to 887,000 units. Combining the reduction in demand from credit tightening with the excessive level of investor speculation in recent years and the risks of a softening economy/declining consumer confidence yields our total estimated peak-to-trough drop in housing starts of 35-45%. This compares to our previous forecast of a 25% decline as discussed in our September 2006 report titled "*Data Masks Grim Reality*," and the current 16% decline thus far on a trailing twelve month basis.

We remind investors that the headwinds from deteriorating credit will impact supply and pricing conditions, as well as incremental demand. With delinquency and foreclosure rates continuing to rise, we believe this will result in more supply hitting the market throughout the year. In addition, we estimate that current inventory figures released by the NAR could ultimately be 20% higher when homes currently in the foreclosure pipeline hit the resale market.

Finally, we believe that tightening liquidity and more stringent appraisals puts current builder backlogs at considerable risk for fallout, which should lead to another surge in cancellations and additional spec inventory on the market. As such, we believe the impact of these headwinds will be felt throughout the entire market (regardless of builder price point), and will likely contribute to the next tranche down in pricing, which in turn could lead to impairment risk surpassing our initial estimate of 20% of book as detailed in our "*Wonder-Land*" report.

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# Executive Summary

## Overview

We have long been of the opinion that the current housing downturn is as much a function of deteriorating affordability as an issue of over supply from fleeing investors and aggressive homebuilders building inventory. In order to mitigate the record price increases seen throughout the majority of the country, homebuyers became increasingly dependant on exotic mortgage products intended to reduce down payments and monthly mortgage payments. We initially highlighted the proliferation of these mortgage products and easing lending standards nearly four years ago in our report titled *"Mortgage Liquidity: Don't Underestimate the Underwriting."* Since our initial discussion on the topic, the evolution of the mortgage market has only accelerated further in the form of sustained easing of lending standards and the more innovation of exotic mortgage products.

In this report, we begin by slicing the mortgage market into five major segments and estimate the overall share of prime conforming, jumbo, Alt-A, subprime, and government (FHA and VA) loans in the purchase mortgage market. Although there is plenty of grey area in terms of defining and reporting lending data (with particular ambiguity surrounding the Alt-A, jumbo and subprime universes), we believe our estimates provide a reasonable depiction of the purchase mortgage market and how it has evolved in the past few years.

We provide investors with a factual understanding of how the loan characteristics of each segment of the market differ, and how easing underwriting standards in recent years have led to a change in mortgage product mix used by homebuyers. We use data from Loan Performance, SMR Research, the Credit Suisse ABS and MBS research teams, and our proprietary network of private homebuilders and mortgage contacts (covering roughly 10% of the total new home market) to determine which states have seen the most dramatic shift into subprime, Alt-A and other exotic mortgages. We then delve into the specific alternative mortgage products that have grown to represent a significant portion of the market, such as interest only loans, negative amortization loans (option ARMs), piggybacks/second mortgages, and low/no documentation mortgages. We highlight the prevalence of these products, the inherent risks involved, and discuss how recent scrutiny from regulators and legislators will likely impact these loan programs and the entire housing market going forward. Although regulatory actions taken thus far have primarily been on the state level, the Credit Suisse Group of External Affairs and Public Policy believes that this legislation could potentially be brought to the federal level within the next 18 months, implying that we will likely see the share of exotics decline drastically throughout the country in the coming months.

We extrapolate our analysis down to the new home market and builder fundamentals. While much of the focus in recent weeks has been on the fallout in the subprime market, we believe the question that investors should be focusing on deals with the builders' reliance on exotic mortgage products throughout the entire credit spectrum and the potential fallout from credit tightening.

That said, responses from public builders regarding subprime exposure have varied greatly, ranging anywhere from 1% of total sales to nearly 20%. We caution investors using the builders' statistics that the data only accounts for the percentage of loans captured through the builders' internal mortgage subsidiary or preferred lender. With capture rates averaging in the 60-80% range, this leaves roughly a quarter or more of the builders' business un-accounted for. Therefore, we would expect the builders' overall exposure to the subprime mortgage market to be greater than disclosed.

Finally, we address topics such as rising foreclosures, early payment default provisions on loans sold by the builders, tightening appraisal standards, and impending ARM resets --- all of which will likely provide additional supply and pricing pressures that ripple through the entire housing food chain and negatively impact all housing related segments.

## Key Takeaways

### Sizing Up The Market

In comparing the mortgage market in 2006 to the lending environment four years ago, we highlight the following key takeaways:

- The overall share of prime conventional loans has declined from an estimated 66% of total purchase dollar originations in 2002 to 45% last year. The GSEs' share loss has been largely attributed to the proliferation of "exotic" mortgage products such as high CLTV loans, low/no documentation mortgages and interest-only/negative amortization loans, which the GSEs have typically chosen to limit their exposure to given the high risk profiles of these products.
- The Alt-A mortgage market has become a haven for homebuyers and investors looking for exotic mortgage products intended to mitigate the lack of affordability caused by surging home prices. While the rapid expansion of the subprime market has been highly publicized and scrutinized of late, the Alt-A market has expanded from just 5% of total originations in 2002 to approximately 20% in 2006. Although the credit profile of Alt-A borrowers is stronger than that of the subprime market (717 average FICO score for Alt-A borrowers versus 646 for subprime), we believe that there is considerable risk associated with the lax underwriting standards and exotic mortgage products utilized in this segment of the market in recent years, both in the form of continued credit deterioration and reduced incremental demand resulting from tightening lending standards.
  - The combined loan to value on Alt-A purchase originations was 88% in 2006, with 55% of homebuyers taking out simultaneous seconds (piggybacks) at the time of purchase.
  - Low/no documentation loans (stated income loans) represented a staggering 81% of total Alt-A purchase originations in 2006, up significantly from 64% just two years earlier (not likely a phenomena just out of convenience).
  - Interest only and option ARM loans represented approximately 62% of Alt-A purchase originations in 2006.
  - Adding to the risk is the fact that 1-year hybrid ARMs represented approximately 28% of Alt-A purchase originations in 2006, setting the stage for considerable reset risk.
  - Investors and second home buyers represented 22% of Alt-A purchase originations last year, which is the largest non-owner occupied share among the various segments of the mortgage market.
- In the past five years, subprime purchase originations have more than doubled in share to approximately 20% of the total in 2006. Over this time period, subprime lenders eased underwriting standards in an effort to gain market share. As one private builder indicated to us, in the past nine months anybody with a pulse that was interested in buying a home was able to get financing, which certainly helps explain the poor performance thus far of 2006 loan vintages. In the third quarter of 2006, the Mortgage Bankers' Association reported that 12.6% of subprime loans were delinquent.
  - 2006 subprime purchase originations posted an alarming 94% combined loan-to-value, on an average loan price of nearly \$200,000.
  - Roughly 50% of all subprime borrowers in the past two years have provided limited documentation regarding their incomes.

- In 2006, 2/28 ARMs represented roughly 78% of all subprime purchase originations according to data from Loan Performance. According to our contacts, homebuyers were primarily qualified at the introductory teaser rate rather than the fully amortizing rate, which for many buyers was the main reason they were even qualified in the first place.

### Lenders and Borrowers Get Exotic

The rapid shift into subprime and Alt-A mortgages does not come close to telling the whole story of the recent evolution of the industry. In order to mitigate record home price increases in recent years, exotic mortgage products have grown to represent a significant portion of the overall market.

- Based on data from SMR Research, approximately 40% of home purchase mortgages in 2006 involved piggyback loans (through the third quarter), compared to 20% in 2001. When speaking with our private builder contacts, even we were surprised by just how little money recent homebuyers have put down when taking piggybacks into account. Based on a survey of our builder contacts, their average *combined* loan-to-value ratio on home sales in 2006 was 91%, with 49% of homebuyers taking out a simultaneous second mortgage at the time of purchase. With home prices falling anywhere from 10-30% in previously frothy markets, high CLTV borrowers are finding themselves in with significant levels of negative equity in their homes.
- A misconception that we commonly hear is that the growth in piggybacks has generally been isolated to the subprime arena. While more than half of all subprime mortgages had a simultaneous second mortgage associated with them, Alt-A and jumbo loans have seen similar growth in piggyback prevalence in recent years. In fact, 55% of securitized Alt-A mortgages in 2006 had simultaneous seconds attached to them.
- In recent weeks, the lending environment for piggyback loans has tightened significantly. Just three weeks ago, Fremont General Corporation, a top 10 subprime lender, announced that it would no longer be providing these second mortgages to borrowers (the company has since exited the subprime market completely). On March 7, Option One, the 9th ranked subprime lender based on 2006 origination volume, announced that it would no longer originate any mortgages (not confined to subprime) with CLTV's above 95% due to the secondary market's lack of appetite for these loans. Two days later, Countrywide announced that it would no longer be offering any 100% LTV products, effective immediately. We believe it is extremely likely that other major lenders will follow suit, as investors' interest in these high-risk loans continues to wane making it unprofitable for issuers to originate them.
- An estimated 23% of total purchase originations in 2006 were interest only or negative amortization mortgages. Similarly, according to our private builder survey, interest only and option ARMs represented 24% of new home sales in 2006.
- Low/no documentation loans increased from just 18% of total purchase originations in 2001 to 49% in 2006 according to Loan Performance. Based on a survey of our private homebuilders, the percentage of buyers providing limited-to-no documentation was similar on the new construction side of the business to the overall market, at 46% in 2006. While many believe that buyers choose to provide limited or no documentation for convenience rather than necessity, a study by the Mortgage Asset Research Institute sampling 100 stated income (low/no documentation) loans found that 60% of borrowers had "exaggerated" their income by more than 50%.
- The crackdown on these mortgage products has already begun. Last week, Wells Fargo announced that it has completely discontinued its stated income/limited documentation wholesale loan programs in the state of Ohio. The announcement was made in response to the recently enacted Ohio Senate Bill 185, which suggests that certain mortgage products originated in Ohio by non-bank entities may not be included

in securitization pools. While this announcement has not received much media attention, we believe it could be a major event if other states pass similar legislation.

- The Credit Suisse Group of External Affairs and Public Policy believes that this legislation could potentially be brought to the federal level within the next 18 months, implying that we will likely see the share of low and no documentation loans decline drastically throughout the country in the coming months.
- As a response to defaults rising and with new leadership in Congress, in December 2006, the Senate Banking Committee Chairman, Senator Chris Dodd and five other committee members increased pressure on federal banking regulators to take action and tighten underwriting of certain subprime products (notably 2/28 ARMs).
- Likely not coincidentally, in late February, Freddie Mac made it known that it will cease buying certain subprime mortgages, limiting its purchase to loans that qualify borrowers at the fully indexed, fully amortized rate and will limit the use of low-doc subprime loans (most importantly, this will impact 2/28 loans, which represented nearly 80% of subprime originations in 2006).

### Where's the Greatest Risk?

While we ultimately believe that the impact of tightening lending standards will be felt in all markets across the country, there were several states and MSAs that were particularly reliant on risky and exotic mortgages in the past few years in order to fuel incremental housing demand.

- Given that we estimate that Nevada, California, Arizona, Florida and Virginia had the greatest share of Alt-A originations in 2005, we believe the fallout on incremental demand will be considerable in these markets. These five states are also the top five EBIT generators for our homebuilding universe, representing roughly 75% of total operating profit in 2005.
- In a survey of our private homebuilders, our contacts confirmed that the Alt-A market is a significant portion of their overall business, representing 18% of new home sales, on average, in 2006. In addition, our builder contacts specifically operating in Nevada (30% Alt-A share), California (28%), Florida (27%), and Arizona (20%) confirm that those states have an above average concentration of Alt-A loans of the overall mortgage pie.
- We estimate that Rhode Island (28% subprime share), California (25%), Mississippi (25%), Illinois (24%), and Texas (23%) had the greatest percentage of subprime homebuyers in 2005.
- More than 60% of homes purchased in 2006 had piggyback loans attached to them in hotbeds such as Los Angeles, the Inland Empire, Las Vegas, and Sacramento. More than half of all home purchases last year had CLTVs of 95% or higher in markets such as the Inland Empire, Las Vegas, Fresno, Detroit and Fort Myers (just to name a few!).
- Similar to piggybacks, the prevalence of IOs and option ARMs has been disproportionately weighted to high priced MSAs such as San Diego (42% of total), the Bay Area (40%), Los Angeles (39%) and Las Vegas (38%).
- While the share of low/no documentation loans appears to be the highest in former investor hotbeds such as California, Las Vegas and Florida, there is not much of a drop-off in other parts of the country. Based on a survey of our private homebuilders, the percentage of buyers providing limited-to-no documentation was greatest in Arizona (71% of total), California (69%), Nevada (52%) and Florida (47%), while the average for all markets in 2006 was 46%.

- We believe that tightening liquidity puts current builder backlogs at considerable risk for fallout, which should lead to another surge in cancellations and additional spec inventory on the market. We are already hearing anecdotes from builders in California, Florida, Nevada and Texas of buyers in backlog being unable to obtain financing because their loan program is no longer being offered by the lender (or the lending requirements have changed), which could lead to the next tranche down in pricing.

### **Watch Out For Pent-Up Supply and Further Pricing Pressure**

While much of the focus in the next few months for the builders will likely be on credit tightening and how that will impact homebuyers' ability to get financing, we do not want to underestimate the impact that rising foreclosures and delinquencies will have on the supply and pricing dynamics of the housing market. Given the recent credit deterioration in the subprime and Alt-A markets, and the likely fallout throughout the entire housing chain, we are of the opinion that there is a real threat of "pent-up supply" that will hit the market in the next six-to-twelve months as a result of the lax underwriting standards of recent years.

- In January, RealtyTrac reported that roughly 130,500 homes entered the foreclosure process across the country, which represented the highest level since the company began disclosing the data two years ago.
- There are three basic stages of the foreclosure process. While the timing of each stage can vary depending on state laws, based on conversations with industry experts we believe it may take anywhere from six-to-twelve months for a home to move through the entire foreclosure process and finally end up as a unit of inventory. On a trailing six month basis (we take the low-end of our potential duration of the foreclosure process), roughly 700,000 homes have entered foreclosure based on RealtyTrac's data. Over the last twelve months, 1.0% of total households in the U.S. have entered foreclosure (1.29 million homes), up from 0.7% in 2005.
- We estimate that there are approximately 565,000 homes in the foreclosure process around the country that have the *potential* to be added to inventory within the next two-to-six months in the form of an REO, and another 135,000 that are already listed or on the verge of being listed as "must-sells."
- To put this into perspective, the National Association of Realtors reported existing inventory of 3.55 million units in January, implying that total inventory may be 20% understated when taking foreclosures into account.
- The builders may also be on the hook for defaults due to early payment default provisions. An early payment default (EPD) for a homebuilder occurs when a loan originated by the builder's mortgage subsidiary defaults within a pre-determined timeframe, and the builder is forced to repurchase the loan from the secondary market investor that it originally sold it to. Based on our survey of private builders, 43% of builders responded that they have EPD provisions attached to their mortgages, with the timeframe that they would be forced to repurchase a defaulted loan ranging anywhere from one month to more than six months. Only 19% of respondents have had to repurchase any loans thus far, although we believe this could become a larger issue if credit conditions continue to deteriorate and builders are forced to take REOs on to the balance sheet.
- The states with the highest level of foreclosures in 2006 were Colorado (2.7% of households), Nevada (2.1%), Georgia (2.0%) and Michigan (1.4%). Not surprisingly, all of these states have seen significant pricing pressure in the past year or more.
- Rising subprime and Alt-A delinquency rates will likely keep foreclosure levels elevated for the foreseeable future. Subprime 60+ day delinquencies and foreclosure rates for 2006 vintages are running more than 3 times the levels from 2004 vintages given the sharp downturn in home prices and underwriting standards that continued to ease

through much of the year. Delinquencies of 90 days or more, foreclosure and REO rates on 2006 vintage Alt-A ARMs are running 3 to 4 times above the levels from 2003 and 2004 vintages.

- Roughly \$300 billion of securitized subprime mortgages (36% of outstanding subprime MBS) are set to reset in 2007 alone, with \$500 billion in total mortgage debt (6% of outstanding) scheduled to reset during the year. While we are not attempting to make a call on the consumer, part of our concerns surrounding our building products and furniture spaces, as well as the concerns expressed by the Credit Suisse Broadline and Hardline retail teams are centered on the potential consumer implications of payment shock associated with these rate resets.
- Another major issue that our contacts are extremely concerned with is the tightening of appraisals. Several of our builder contacts have reported increasing instances of appraisals coming in below the price that the home was sold for a few months earlier, which is causing builders to lower the price to the appraised value at closing. Appraisals are now coming back several times, and up to three days before closing given the tighter standards. On the existing side, many builders have reported buyers in backlog that have had to cancel because the appraisal value of their home came in below their sales price and outstanding loan value. While most of the focus on lending tightening has been on the actual mortgage products and lending criteria, we believe that this headwind may prove to have a significant impact on the overall housing market by forcing the next drop in home prices, as reluctant home sellers finally face the reality that their home is not worth what it was two years ago.

## Tying It All Together

- The obvious corollary to our analysis of the risk underlying the mortgage market is its pending impact on new home sales and homebuilder fundamentals. In recent days, several public homebuilders have commented on their exposure to the subprime mortgage market. While the focus has predominantly been isolated to the subprime market, we believe the question that investors should be focusing on deals with the builders' reliance on exotic mortgage products throughout the entire credit spectrum and the potential fallout from credit tightening.
- That said, responses regarding subprime exposure have varied greatly, ranging anywhere from 1% of total sales to nearly 20%. While we would be extremely surprised to see such a wide range in exposure among the various builders (especially those selling to similar price points), we are not terribly shocked to see the differing responses given the blurred boundaries between mortgage segments.
- We caution investors using the builders' statistics that the data only accounts for the percentage of loans captured through the builders' internal mortgage subsidiary or preferred lender. With capture rates averaging in the 60-80% range, this leaves roughly a quarter or more of the builders' business un-accounted for. Many of our contacts indicated that a disproportionate share of their non-captured home sales are subprime borrowers. If the same holds true for the public, we would expect the builders' overall exposure to the subprime mortgage market to be greater than disclosed.
- The fact that builders do not have, or have not historically tracked more in-depth credit statistics for their buyers leaves risk that any tightening could take the group by surprise, reminiscent of our concerns regarding investors nearly two years ago.

### New Home Market Impact

- With financing pulling back at the entry-level, we believe it is only a matter of time until the impact is felt in other price points. If 15-25% of entry-level buyers that would have

used subprime financing can no longer obtain funding, does this mean that 15-25% of potential move-up buyers can no longer obtain a buyer for their home, and so on?

- Analyzed another way, we take each piece of the general mortgage market and use conversations with industry contacts, recent tightening announced by lenders and expected legislative and regulatory actions, to estimate the proportion of each segment that could be eliminated by tighter lending standards. In our base case, we assume that 50% of the subprime market is at risk, taking originations back to 2003 levels, which would impact total purchase volume by 10%. Similarly, we estimate that 25% of Alt-A and 10% of prime loans would not be approved under tighter restrictions for various combinations of investor purchases, piggybacks, low down payments and low documentation, and the impending ripple effect down the entire housing market food chain. In aggregate, the total fallout of incremental originations would be 21% over the next one-to-two years.
- Related to speculation, investors' share of the market climbed to roughly 18% in 2005 and 2006 from an average of 7% from 1998-2001, implying that a return to the mean would remove 11% of housing demand.
- Combining the two yields a 25-35% reduction in peak housing production. This would likely be exacerbated by declining consumer confidence, investor demand falling below historical norms, the risk of a softening economy and supply pressures weighing on demand (all of which seem present today), suggesting at least a further 10% drop. Aggregating the various impacts would result in a 35-45% drop-off in new starts from the peak of 2.1 million homes to roughly 1.2-1.4 million, as compared to the 16% decrease thus far on a trailing twelve month basis. For comparison, starts during the last three downturns ending in 1991 (down 34%), 1982 (down 32%) and 1980 (down 37%) fell by an average of 34%.
- Expressed differently, if we assume that the full impact of mortgage lending tightening will be felt in 2007, all else equal, we would expect new home sales to fall roughly 20% from December's seasonally adjusted rate of 1.123 million to an annual rate of 887,000 homes (236,000 reduction from tightening lending standards).
- Our new forecast of a 35-45% peak-to-trough decline in housing starts compares to our initial "back-of-the-envelope" estimate of 25% as discussed in our September 2006 report titled *"Data Masks Grim Reality."* Given our forecast reduction, we are lowering our 2007 earnings estimates across our space. Please see our note also published today called *"A Different Kind of Spring Selling Season: Reducing 2007 Estimates"* for more details.
- Thus far, the group has recognized \$3.9 billion of our estimated \$10.5 billion of impairments expected via writedowns and option forfeitures with new order home prices falling 12% in 4Q06 from a 4Q05 peak. Our estimated writedown analysis was predicated on new home values falling back to 2003 levels, which would be a further 5.5% reduction from current levels. Given the incremental headwinds of reduced demand from liquidity tightening, and additional supply coming to the market in the form of REOs, buyers falling out of backlog and appraisal tightening, we remain confident in our initial estimates and would not be surprised to see prices come under even greater pressure than originally anticipated, therefore implying additional impairment risk beyond our estimates.

### Market and Builder Risk

- To summarize our views down to the public builders, we compared the exposure to subprime, Alt-A and prime mortgages by state to that of the builders' revenue breakdown. In addition to having geographic risk to frothy mortgage markets, builders that derive a higher percentage of units from the entry-level are likely to feel the tightening more immediately. We segment out the builders most exposed to the entry-

level via industry statistics from Professional Builder of price point, in addition to the average selling price given our view that certain builders have different classifications of an “entry-level” home.

- Combining the two metrics highlights those builders that we believe would have the most risk to tightening credit. For example, in 2005, SPF and KBH generated roughly 50% and 47% of revenues from high or medium risk markets while also having above average exposure to the entry-level. On the other hand, NVR, PHM, TOL and WCI either have below average exposure to the first-time buyer, or are less prevalent in high risk markets. However, we caution that while this framework provides an easy method to measure relative risk, we reiterate our comment that a divergence in price points is only a temporary phenomenon, and therefore we believe that all builders will ultimately be negatively impacted by the headwinds discussed in this report.

*We would like to extend a special thanks to our Asset-Backed Securities Team led by Rod Dubitsky and our Mortgage Backed Securities Team led by Satish Mansukhani and Chandrajit Bhattacharya for their instrumental contributions in preparing this report.*

# The U.S. Mortgage Market

The mortgage market can be broadly broken down into five segments: prime conforming, jumbos, Alt-A, subprime, and government (FHA and VA). There are numerous factors that contribute to which financing option a prospective homebuyer ultimately uses. In general, a more established credit history, supportive assets and/or a consistent employment record translates to the most desirable of mortgage with the best rates and terms, i.e. prime conforming. However, poor credit quality, undocumented income or the purchase of a high priced home could push the borrower into a nonconforming mortgage.

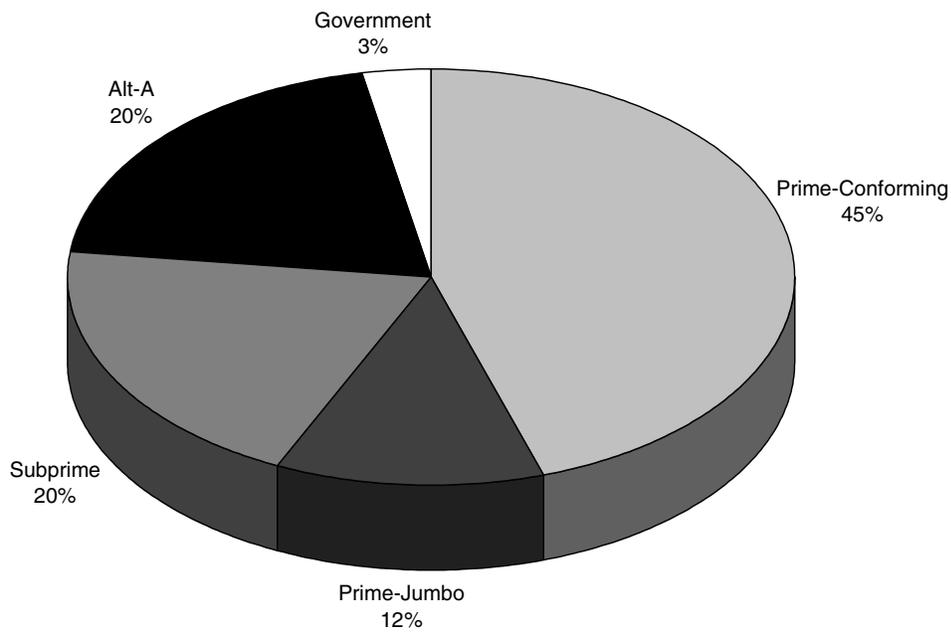
In this section, we briefly define each mortgage type, highlight the main differences and outline the relative size of each segment. While we originally set out in this report to definitively and accurately slice the mortgage market into the segments highlighted above, we quickly discovered that there is plenty of grey area in terms of defining and reporting lending data. Particular ambiguity surrounds the Alt-A, jumbo and subprime universes, which often have blurred boundaries.

In addition to vague definitions, loan tracking data such as the oft-cited Loan Performance database has its limitations, as it only covers the securitized non-agency mortgage market. We estimate that our data, which combines the Loan Performance database and agency securitization data, captures roughly 75% of the total mortgage market. It is unclear exactly how that remaining quarter of the market shakes out between segments, and any estimates of segment breakouts are just that --- estimates. Historically, one could make the assumption that the majority of non-securitized loans were higher quality mortgages that originators decided to keep on their balance sheets. More recently, however, it is likely that the opposite is true, due to deteriorating investor demand for higher-risk loans.

With the help of the Credit Suisse U.S. Mortgage Strategy team and our industry contacts in the mortgage arena, we present below a brief overview of the major mortgage segments and provide an estimated breakout of purchase originations among the segments. For the purpose of this report, we are focusing in particular on the purchase mortgage market, as refinancings are not incremental for our analysis. The percentage breakouts are estimates based on the various data sources available, providing a reasonable depiction of the purchase mortgage market, and how it has evolved in recent years. A more detailed discussion devoted to alternative mortgage products (i.e. interest only, option ARMs, negative amortization, stated income loans, piggybacks, etc.) is included in the following section of this report.

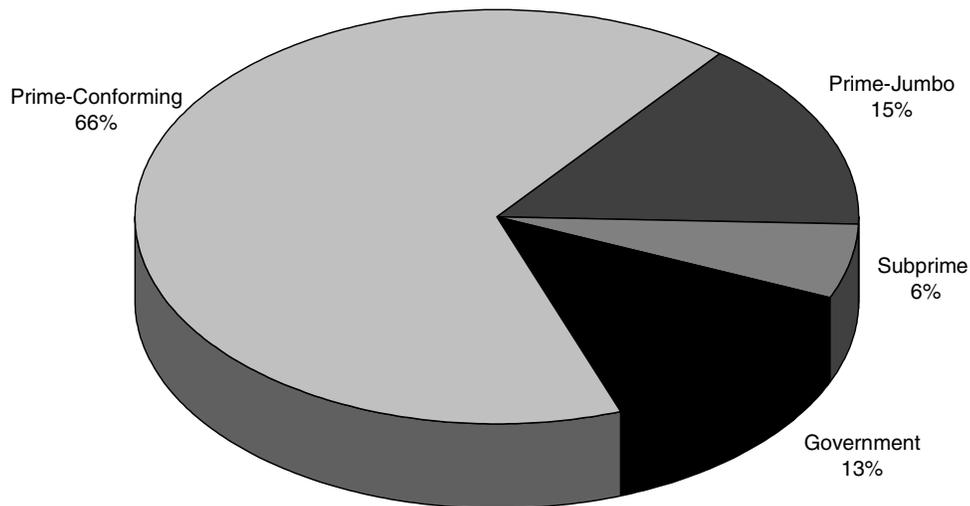
Exhibit 1 and Exhibit 2 provide a comparison of the current purchase mortgage market versus the market in 2002, as we detailed in our original report on the topic almost four years ago called *"Mortgage Liquidity: Don't Underestimate the Underwriting."* In that four year time period, the overall share of prime conventional loans declined from an estimated 66% of total purchase dollar originations to 45%, as the surge in subprime and Alt-A lending contributed to the drop in market share.

**Exhibit 1: Estimated Purchase Dollar Originations, 2006**



Source: Inside Mortgage Finance, MBA, LEHC, Credit Suisse U.S. Mortgage Strategy, Credit Suisse analysis.

**Exhibit 2: Estimated Purchase Dollar Originations, 2002**



Alt-A exposure was approximately 5% of purchase originations in 2002, and was grouped in Prime-Conforming, Prime-Jumbo and Subprime.

Source: Inside Mortgage Finance, MBA, FHA, FHFB, Credit Suisse analysis.

### Prime Conventional Mortgages (Estimated 45% of Purchase Dollar Originations)

Although the market share of conforming conventional mortgages has declined in recent years, the product remains the most common type of mortgage originated in the residential market at an estimated 45% of total purchase dollar originations. Historically, the typical prime conforming conventional (PCC) borrower purchased an entry-level, first-time or potentially second-time move-up home, put down at least 20% of the purchase price, received a competitive market interest rate and was not required to purchase mortgage insurance. As shown in Exhibit 3, the typical PCC borrower is taking out a fixed rate mortgage and providing full income and asset documentation. While prime conforming conventional loans are still considered to be the safest credit risk, underwriting standards on these loans appeared to have eased in recent years, in-step with the broader mortgage market. For example, low documentation loans represented 36% of all PCC purchase originations in 2006 that reported documentation data, up from 24% in 2003.

Although we have long argued that a homebuyer's FICO score is not necessarily a good indicator of default risk, PCC loans are typically limited to buyers with scores above 620. The vast majority of the loans are sold to Fannie Mae and Freddie Mac (Government Sponsored Entities, or GSEs). It is important to note, however, that Fannie and Freddie do not originate conforming mortgages; they simply provide liquidity to the market by purchasing loans originated by other financial institutions. Therefore, the GSEs hold significant influence over underwriting standards in this segment of the market. (See the section of this report titled "Recent Events May Force Regulators' Hand" for more information on the current lending and regulatory environment).

#### Exhibit 3: Characteristics of Prime Conventional Conforming Purchase Mortgage Originations, 2004-2006

|                      | 2004  | 2005  | 2006  |                         | 2004  | 2005  | 2006  |
|----------------------|-------|-------|-------|-------------------------|-------|-------|-------|
| <b>Product Type</b>  |       |       |       | <b>Documentation</b>    |       |       |       |
| Fixed Rate Mortgage  | 69.1% | 72.1% | 76.0% | Full Doc                | 67.2% | 65.6% | 63.6% |
| Amortizing ARM       | 27.2% | 21.3% | 20.0% | Low Doc                 | 32.8% | 34.4% | 36.4% |
| NegAm ARM            | 3.6%  | 5.6%  | 3.4%  | <b>Occupancy Status</b> |       |       |       |
| N/A                  | 0.1%  | 1.0%  | 0.7%  | Owner-Occupied          | 82.9% | 79.4% | 80.0% |
| <b>Property Type</b> |       |       |       | 2nd Home                | 6.5%  | 8.9%  | 8.8%  |
| Single-Family        | 82.1% | 81.2% | 83.8% | Investor                | 8.1%  | 8.7%  | 7.4%  |
| Condo/Coop           | 14.0% | 15.4% | 13.0% | N/A                     | 2.6%  | 3.0%  | 3.7%  |
| 2-4 Units            | 3.9%  | 3.4%  | 3.2%  |                         |       |       |       |

Note: All distributions are weighted by the dollar volume of mortgage originations.

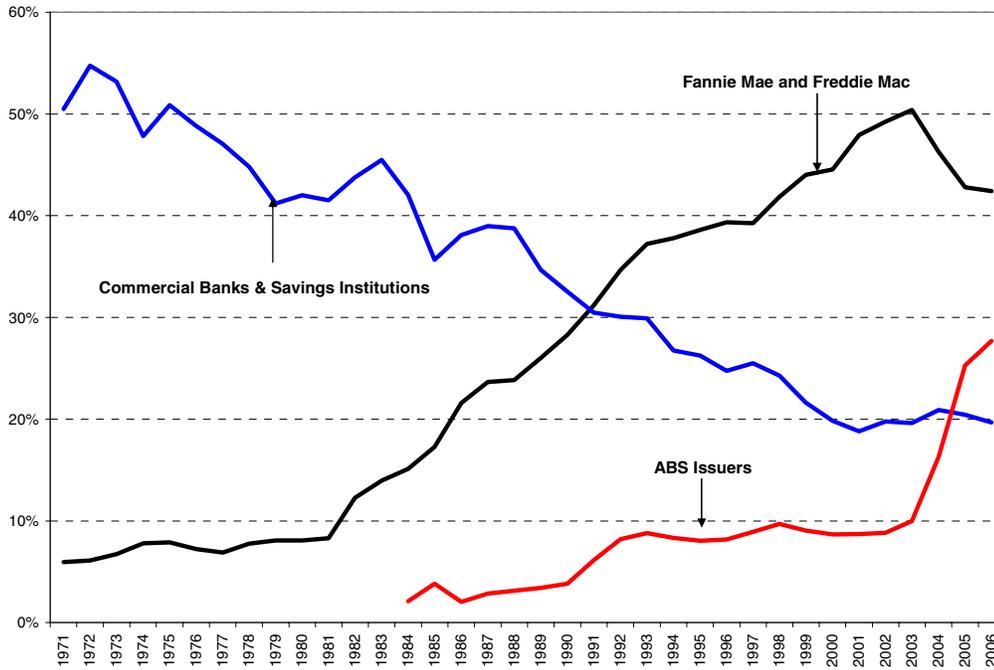
Source: Loan Performance, Fannie Mae.

In the four years since we wrote our report "*Mortgage Liquidity: Don't Underestimate the Underwriting*", prime conforming mortgages have declined from roughly 66% of purchase dollar originations in 2002 to an estimated 45% in 2006, although the market share from four years ago likely included a small percentage of loans that are now classified as Alt-A mortgages. As shown in Exhibit 4, the GSEs controlled 42% of total outstanding mortgage debt at the end of 2006, which is down from the peak of 50% in 2002. Exhibit 5 shows the breakout of which entities purchase mortgages that are securitized by the GSEs, with foreign investors, commercial banks and Fannie and Freddie representing the largest holders of agency issued debt. The GSEs' share loss has been largely attributed to the proliferation of "exotic" mortgage products such as high CLTV loans, low/no documentation mortgages and interest-only/negative amortization loans, which the GSEs have typically chosen to limit their exposure to given the high risk profiles of these products (See Exhibit 6 for a breakout of prime conventional conforming mortgage originations by loan type).

That said, as secondary mortgage market investors (and homebuyers) have developed increased appetites for risk in the past few years of record home price appreciation, non-agency lenders have been successful in marketing these products and packaging the loans in the secondary market. As the full ramifications of this recent wave of "easy

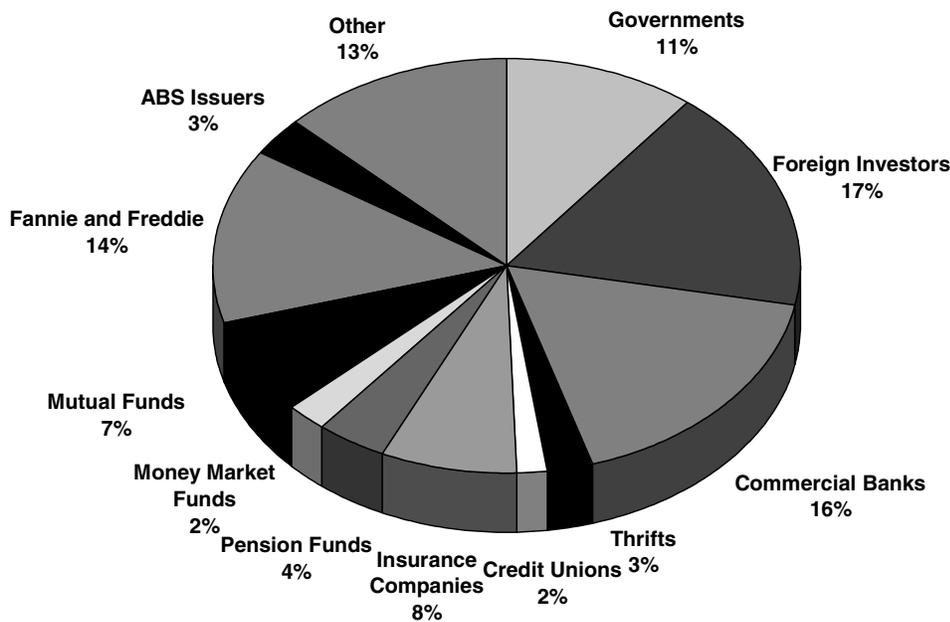
money” in the non-agency mortgage world remains unknown, it is possible that the GSEs eventually regain some of the lost market share as MBS investors take a flight to quality to this “safer” pool of mortgages.

**Exhibit 4: Percentage Held of Household Mortgage Debt, 1971–2006**



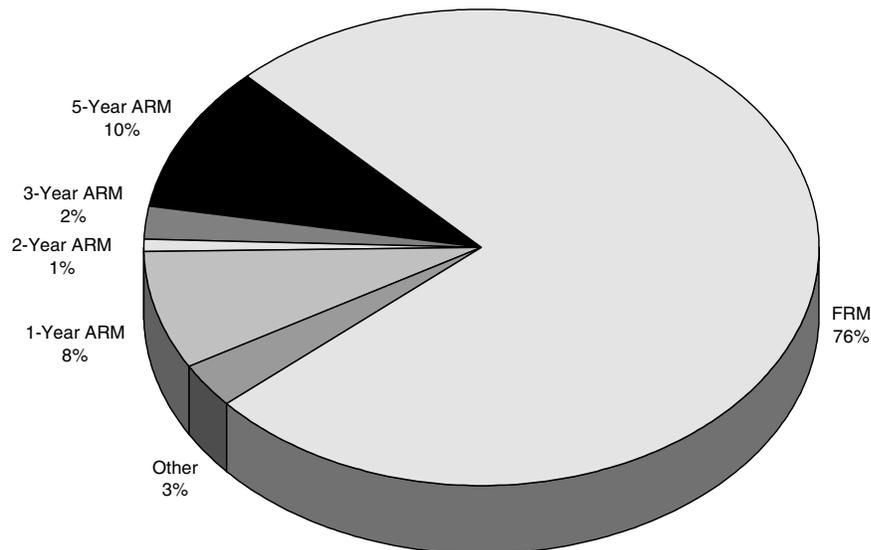
Source: OFHEO, Federal Reserve, Company data, Credit Suisse analysis.

**Exhibit 5: Who Buys Agency Issued Securitized Mortgages?**



While data is not available, anecdotal evidence suggest that foreign investors and hedge funds own a large percentage of private ABS securitizations.

Source: Federal Reserve, Credit Suisse analysis.

**Exhibit 6: Distribution of Prime Conventional Mortgage Originations by Loan Type, 2006**

Note: Based on origination dollars for purchase loans.

Source: Loan Performance, Fannie Mae, LEHC, Credit Suisse analysis.

**Jumbo Mortgages (Estimated 12% of Purchase Dollar Originations)**

Freddie Mac and Fannie Mae stipulate the maximum size of a home mortgage that they are willing to buy from mortgage originators (\$417,000 in 2006 and 2007). Mortgages that exceed this threshold are considered “jumbos” and are categorized as a nonconforming loan. The typical jumbo borrower is either purchasing a second-time move-up home or resides in an expensive real estate market, such as California, where it is common for the amount of the loan to exceed the maximum allowed by Freddie and Fannie. The jumbo borrower receives a slightly higher than market interest rate since it is more difficult for the underwriter to sell off the risk, although the credit quality of a jumbo loan holder is comparable to a prime conforming buyer (the jumbo buyer needs to be able to qualify for the higher monthly payment). Since the GSEs do not purchase jumbo mortgages, the originators either hold the loans or securitize them through the private MBS market.

As we mentioned above, the increased appetite for risk in the past few years has made it far easier (and affordable) for homebuyers to take out combined mortgages. In order to avoid paying the higher interest rate or mortgage insurance, many jumbo buyers will take a first mortgage equal to the GSE loan limit, and then take a second mortgage for the remaining loan amount. Often times the combined interest rate on the first and second mortgage is lower than the prevailing rate for a jumbo loan.

Even more significant, however, is the recent propagation of exotic mortgage products such as option ARMs throughout the Alt-A universe, which has likely contributed to the reduced share of jumbo mortgages. These loans allow homebuyers to make minimum payments below interest costs in the early years of a mortgage. Despite the fact that fully amortized rates are typically higher on these exotics, the reduced payments on a negatively amortizing loan can be quite significant in the early years of a mortgage, especially on such a large loan amount in the case of these high-priced homes. Historically, jumbo mortgages have been disproportionately weighted towards ARM products for this exact reason. The escalation of Alt-A option ARMs has resulted in even

lower payments off the bat than traditional adjustable rate mortgages, which has likely contributed to the dramatic shift out of prime, fully amortizing jumbos.

As shown in Exhibit 7, roughly 58% of jumbo borrowers in 2006 took out fixed rate mortgages. Interest-only ARMs were the second most commonly used mortgage product, representing 38% of jumbo purchase originations. Nearly 45% of homebuyers provided full income and asset documentation on their jumbo loan applications, with the remaining share providing limited or no documentation. Last year, 33% of jumbo loans were originated with simultaneous second mortgages. FICO scores remain high in this segment of the market, with the average score last year coming in at 749. The average jumbo loan size was approximately \$583,000.

We estimate that the jumbo share of purchase originations was roughly 12% in 2006, down from our 15% estimate in 2002. We note, however, that there is a significant level of ambiguity in the classification of jumbo loans. Historically, any loan exceeding the conforming limit would be considered a jumbo loan. However, with the expansion of the Alt-A market and option ARM product, many of these large loans are now being classified as Alt-A for data reporting purposes. In 2005, Loan Performance, a popular database covering mortgage backed securities, began grouping all of these option ARMs into Alt-A. This can be seen in Exhibit 7, as the “NegAM ARM” share of originations declined from 11.7% in 2004 to 0% in 2006. These incremental loans were reclassified as Alt-A mortgages and have contributed to the growth in that segment of the market.

**Exhibit 7: Characteristics of Purchase Mortgage Originations Backing Non-Agency Jumbo, 2004-2006**

|                             | 2004  | 2005   | 2006   |
|-----------------------------|-------|--------|--------|
| <b>Product Type</b>         |       |        |        |
| IO FRM                      | 0.5%  | 9.0%   | 16.2%  |
| Other FRM                   | 18.6% | 27.0%  | 41.3%  |
| IO ARM                      | 51.2% | 49.9%  | 38.0%  |
| NegAm ARM                   | 11.7% | 2.6%   | 0.0%   |
| Other ARM                   | 17.9% | 11.6%  | 4.5%   |
| <b>40-Year Mortgage</b>     |       |        |        |
| 40-Year FRM                 | 0.0%  | 0.0%   | 0.0%   |
| 40-Year ARM                 | 0.3%  | 0.0%   | 0.0%   |
| Not a 40-Year Mortgage      | 99.7% | 100.0% | 100.0% |
| <b>Occupancy Status</b>     |       |        |        |
| Owner-Occupied              | 88.0% | 88.4%  | 89.9%  |
| Investor                    | 3.2%  | 2.0%   | 1.0%   |
| 2nd Home                    | 8.8%  | 9.6%   | 9.2%   |
| <b>Documentation</b>        |       |        |        |
| Full Doc                    | 50.9% | 47.5%  | 44.8%  |
| Low Doc                     | 40.7% | 49.9%  | 49.4%  |
| No Doc                      | 1.6%  | 2.3%   | 5.8%   |
| NA                          | 6.8%  | 0.3%   | 0.0%   |
| <b>Simultaneous Seconds</b> |       |        |        |
| w/ Simultaneous Second      | 21.7% | 26.4%  | 32.5%  |
| w/o Simultaneous Second     | 78.3% | 73.6%  | 67.5%  |

|                              | 2004      | 2005      | 2006      |
|------------------------------|-----------|-----------|-----------|
| <b>Property Type</b>         |           |           |           |
| Single-Family                | 65.6%     | 65.8%     | 71.5%     |
| Condo/Coop                   | 13.9%     | 14.6%     | 12.5%     |
| 2-4 Units                    | 1.7%      | 1.5%      | 1.3%      |
| Other                        | 18.8%     | 18.1%     | 14.7%     |
| <b>Loan Type</b>             |           |           |           |
| FRM                          | 19.1%     | 36.0%     | 57.5%     |
| 1-Year ARM                   | 24.3%     | 4.3%      | 0.0%      |
| 2-Year ARM                   | 0.1%      | 0.0%      | 0.0%      |
| 3-Year ARM                   | 8.2%      | 3.1%      | 0.5%      |
| 5-Year ARM                   | 35.9%     | 34.1%     | 20.9%     |
| 7-Year ARM                   | 7.2%      | 8.4%      | 9.7%      |
| 10-Year ARM                  | 5.3%      | 14.1%     | 11.4%     |
| <b>Other Characteristics</b> |           |           |           |
| Avg. FICO Score              | 737       | 745       | 749       |
| Avg. Combined LTV            | 78%       | 79%       | 80%       |
| Avg. Debt to Income Ratio    | 35%       | 36%       | 37%       |
| Avg. Loan Size               | \$423,142 | \$500,053 | \$583,430 |

Note: Beginning in 2005, Loan Performance began classifying all jumbo option ARMs as “Alt-A” mortgages. The above data reflects the non-option ARM jumbo market post 2004.

Source: Loan Performance, Inside MBS & ABS, Fannie Mae.

### Alt-A Mortgages (Estimated 20% of Purchase Dollar Originations)

An Alt-A mortgage, also referred to as an “A-minus” loan, was historically a mortgage for borrowers with limited funds for a down payment and/or blemished credit (such as being 30 days delinquent once or twice in the past year), but the capacity to resolve outstanding credit issues. Alt-A loans carry interest rates that are below the subprime market rate, but higher than the rate on A-loans in order to reflect higher borrower risk (roughly 25-50 basis points higher depending on credit characteristics). Self employed borrowers that could not

provide adequate proof of income and assets were also commonly grouped in this category, and charged a higher rate to account for their lack of documentation.

More recently, the Alt-A segment of the mortgage market has evolved to include many of the most risky, “exotic” mortgage products such as option ARMs and limited documentation mortgages. These days, the Alt-A segment is more a function of the type of mortgage product than the credit quality of the borrower.

Although the rapid expansion of the subprime market has been highly publicized and scrutinized, its growth is rivaled by the Alt-A mortgage market, which has expanded from just 5% of total originations in 2002 to approximately 20% in 2006. Through the third quarter of 2006, IndyMac and Countrywide were the largest issuers of Alt-A loans, accounting for roughly a third of the market (See Exhibit 8). As alluded to in our discussion on jumbo loans, much of the growth in this segment of the market has been the result of the shift into exotic mortgage products, which primarily fall into the Alt-A category of mortgages.

#### Exhibit 8: Top 10 Alt-A Lenders, 2006

| Rank                | Organization             | 2006 YTD         | Market Share (%) | Total Origination Volume | Alt-A Share (%) |
|---------------------|--------------------------|------------------|------------------|--------------------------|-----------------|
| 1                   | IndyMac                  | \$49,620         | 16.5%            | \$64,000                 | 77.5%           |
| 2                   | Countrywide Financial    | 47,000           | 15.7%            | 333,740                  | 14.1%           |
| 3                   | Wells Fargo              | 30,050           | 10.0%            | 310,890                  | 9.7%            |
| 4                   | Residential Funding Corp | 29,730           | 9.9%             | 66,100                   | 45.0%           |
| 5                   | WMC Mortgage             | 19,300           | 6.4%             | 24,140                   | 80.0%           |
| 6                   | Washington Mutual        | 19,050           | 6.4%             | 153,630                  | 12.4%           |
| 7                   | GreenPoint Mortgage      | 12,310           | 4.1%             | 27,120                   | 45.4%           |
| 8                   | Aurora Loan Services     | 11,000           | 3.7%             | 25,300                   | 43.5%           |
| 9                   | Homecomings Financial    | 9,980            | 3.3%             | 21,660                   | 46.1%           |
| 10                  | First Magnus Financial   | 9,900            | 3.3%             | 22,030                   | 44.9%           |
| <b>Total Top 10</b> |                          | <b>\$237,940</b> | <b>79.3%</b>     | <b>\$1,048,610</b>       | <b>22.7%</b>    |

Note: Dollars in millions. 2006 YTD through third quarter.

Source: Inside Mortgage Finance

While we will discuss option ARMs and other exotic mortgage products in greater detail later in the report, an option ARM is simply a mortgage which gives the homeowner a choice of payment methods: fully amortizing over 30 years, fully amortizing over 15 years, interest-only payments, or a payment based on a below-market payment rate which fails to cover even the interest which is due (think of a minimum payment on a credit card). The latter situation is commonly referred to as “negative amortization,” and is a term often used synonymously with this type of mortgage product. Negative amortizing loans accounted for roughly 26% of all Alt-A purchase mortgages in 2006, compared to just 2% in 2003 (See Exhibit 9). That percentage would be even greater (46%) when throwing refinances into the mix as well. Forty year mortgages have also gained prevalence in the Alt-A arena, representing approximately 6% of all originations in 2006.

While credit risk in this segment is often downplayed given the better credit profile of Alt-A borrowers relative to subprime borrowers (i.e. better FICO scores, lower CLTVs), we believe that the significant growth in this segment resulting from its exposure to exotic mortgages leaves the Alt-A mortgage market particularly susceptible to future credit tightening.

As shown in Exhibit 9, low/no documentation loans (stated income loans) represented a staggering 81% of total Alt-A purchase originations in 2006, up significantly from 64% just two years earlier. These loans are also sheepishly referred to as “liar loans” by many in the industry due to the propensity for borrowers to exaggerate their income on loan applications. In addition, the combined loan to value on Alt-A purchase originations was 88% in 2006, with 55% of homebuyers taking out simultaneous seconds (piggybacks) at

the time of purchase. Investors and second home buyers represented approximately 22% of Alt-A purchase originations last year, which is the largest non-owner occupied share among the various segments of the mortgage market. Adding to the risk is the fact that 1-year hybrid ARMs represented approximately 28% of Alt-A purchase originations in 2006, setting the stage for considerable reset risk. The average loan size of Alt-A mortgages backing MBS in 2006 was roughly \$287,700, while the average FICO score of an Alt-A borrower last year was 717.

These datapoints suggest that the Alt-A market, in recent years, has been a haven for homebuyers and investors looking for exotic mortgage products intended to mitigate the lack of affordability caused by surging home prices. While we are not capable of making a call on the eventual credit performance in this segment of the market (we'll leave that up to the credit analysts), we believe that the Alt-A segment is particularly susceptible to tightening lending standards that may result from increased regulatory scrutiny, as well as a reduced appetite for risk among secondary market investors.

In our opinion, markets that have become significantly exposed to these exotic mortgage products in the past three years, and the mortgage originators/builders that use them to finance their new construction homebuyers will be hit especially hard as underwriting standards begin to tighten, as the incremental demand created by the added liquidity in recent years would likely diminish. Not surprisingly, many of the states that had the greatest share of Alt-A mortgages in 2005 have also served as the primary growth engines for the major homebuilders in recent years. We estimate that Nevada, California, Arizona, Florida and Virginia had the greatest share of Alt-A originations in 2006. These five states are also the top five EBIT generators for our homebuilding universe, representing roughly 75% of total operating profit in 2005. In a survey of our private homebuilders, our contacts confirmed that the Alt-A market is a significant portion of their overall business, representing 18% of home sales, on average, in 2006. In addition, our builder contacts specifically operating in Nevada (30% Alt-A share), California (28%), Florida (27%), and Arizona (20%) confirm that those states have an above average concentration of Alt-A loans of the overall mortgage pie, in-line with our state-by-state estimates. A few builders out west indicated that Alt-A represents up to 90% of their overall business. Suffice to say, any credit tightening in this segment of the market will likely have a negative impact on homebuilder profits. (See Exhibit 10 through Exhibit 12).

**Exhibit 9: Characteristics of Purchase Mortgages Backing Non-Agency Alt-A MBS by Loan Origination Date, 2004-2006**

|                             | 2004  | 2005  | 2006  |
|-----------------------------|-------|-------|-------|
| <b>Product Type</b>         |       |       |       |
| IO FRM                      | 3.1%  | 10.1% | 14.0% |
| Other FRM                   | 24.4% | 17.9% | 18.4% |
| IO ARM                      | 50.6% | 37.5% | 35.2% |
| NegAm ARM                   | 7.1%  | 27.0% | 26.4% |
| Other ARM                   | 14.9% | 7.4%  | 6.0%  |
| <b>40-Year Mortgage</b>     |       |       |       |
| 40-Year FRM                 | 0.0%  | 0.0%  | 0.2%  |
| 40-Year ARM                 | 0.3%  | 2.2%  | 6.2%  |
| Not a 40-Year Mortgage      | 99.7% | 97.8% | 93.7% |
| <b>Occupancy Status</b>     |       |       |       |
| Owner-Occupied              | 77.3% | 75.2% | 78.1% |
| Investor                    | 17.9% | 18.1% | 15.0% |
| 2nd Home                    | 4.8%  | 6.8%  | 6.9%  |
| <b>Documentation</b>        |       |       |       |
| Full Doc                    | 34.1% | 26.0% | 18.8% |
| Low Doc                     | 58.6% | 69.8% | 77.9% |
| No Doc                      | 5.2%  | 3.4%  | 3.3%  |
| NA                          | 2.1%  | 0.8%  | 0.0%  |
| <b>Simultaneous Seconds</b> |       |       |       |
| w/ Simultaneous Second      | 39.1% | 46.1% | 55.3% |
| w/o Simultaneous Second     | 60.9% | 53.9% | 44.7% |

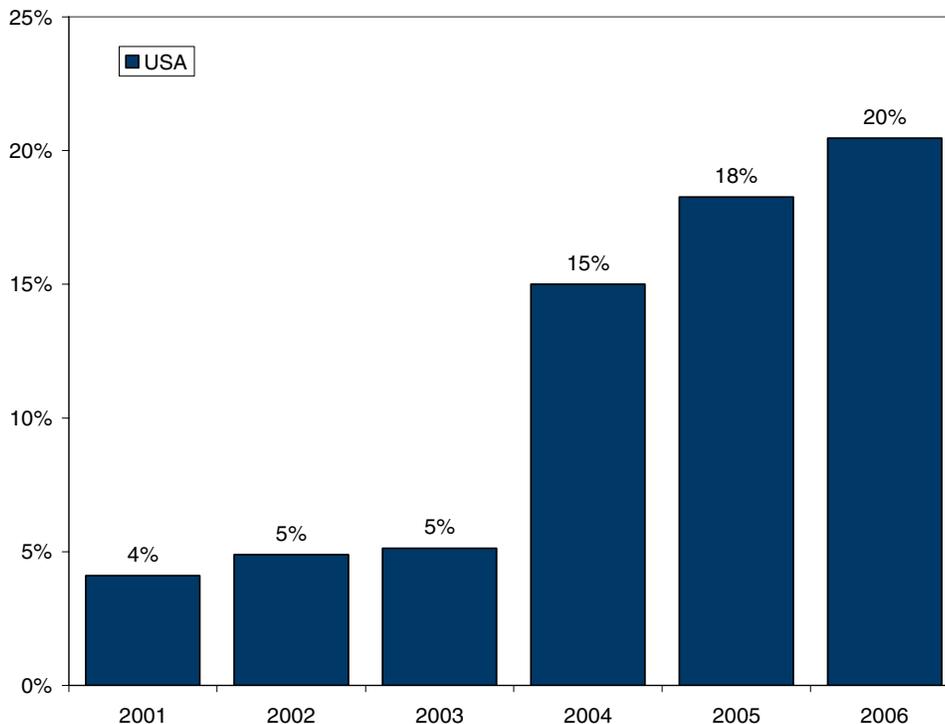
  

|                              | 2004      | 2005      | 2006      |
|------------------------------|-----------|-----------|-----------|
| <b>Property Type</b>         |           |           |           |
| Single-Family                | 57.0%     | 54.6%     | 53.3%     |
| Condo/Coop                   | 11.7%     | 13.2%     | 13.3%     |
| 2-4 Units                    | 7.9%      | 6.8%      | 7.0%      |
| Other                        | 23.5%     | 25.5%     | 26.4%     |
| <b>Loan Type</b>             |           |           |           |
| FRM                          | 27.4%     | 28.1%     | 32.4%     |
| 1-Year ARM                   | 13.7%     | 30.9%     | 27.6%     |
| 2-Year ARM                   | 10.7%     | 5.1%      | 3.1%      |
| 3-Year ARM                   | 19.3%     | 7.5%      | 2.9%      |
| 5-Year ARM                   | 26.0%     | 20.5%     | 25.5%     |
| 7-Year ARM                   | 1.9%      | 3.0%      | 4.4%      |
| 10-Year ARM                  | 0.9%      | 5.0%      | 4.1%      |
| <b>Other Characteristics</b> |           |           |           |
| Avg. FICO Score              | 716       | 721       | 717       |
| Avg. Combined LTV            | 86%       | 86%       | 88%       |
| Avg. Debt to Income Ratio    | 36%       | 37%       | 38%       |
| Avg. Loan Size               | \$236,564 | \$276,617 | \$287,717 |

Note: All distributions are weighted by the dollar volume of mortgage originations.

Source: Loan Performance, Inside MBS & ABS, Fannie Mae.

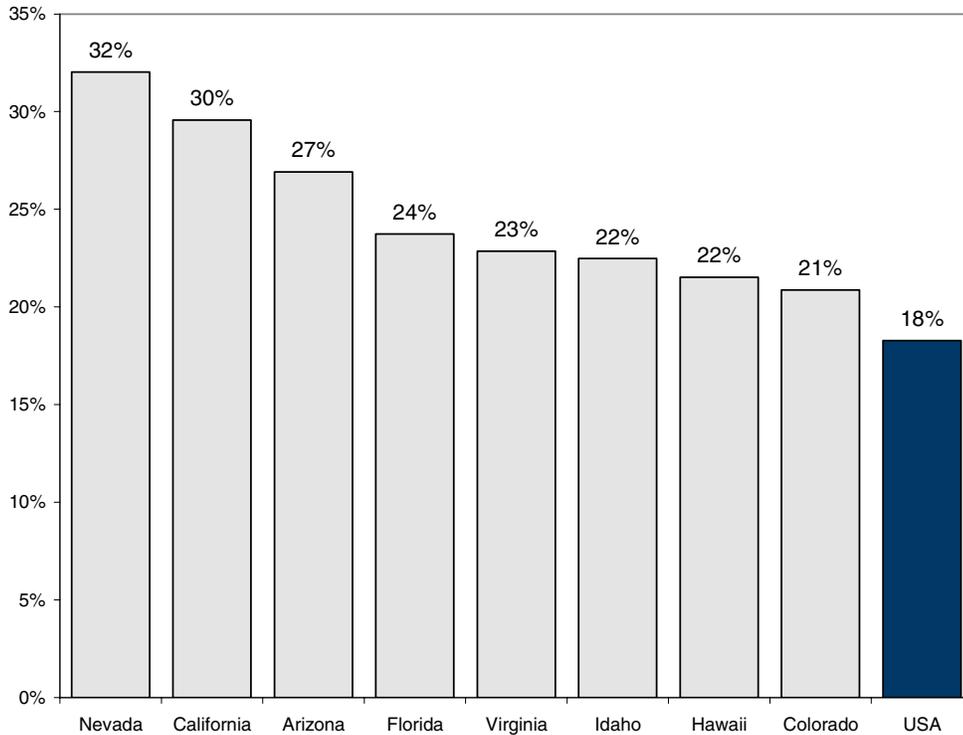
**Exhibit 10: Alt-A Share of Securitized Purchase Mortgage Originations, 2001-2006**



Note: In 2005, Loan Performance began grouping jumbo option ARMs in with Alt-A mortgages.

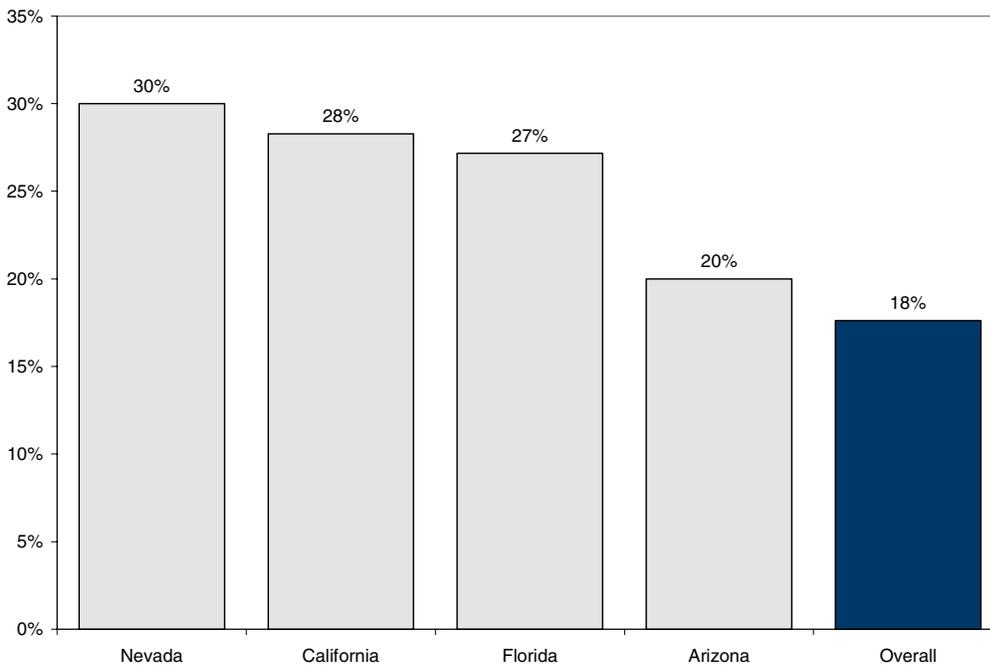
Source: Loan Performance, Credit Suisse U.S. Mortgage Strategy, Credit Suisse estimates.

**Exhibit 11: Alt-A Share of Securitized Purchase Mortgage Originations by State, 2005**



Source: Loan Performance, Credit Suisse U.S. Mortgage Strategy, Credit Suisse estimates.

**Exhibit 12: Private Builder Alt-A Share of Total Originations, 2006**



Source: Credit Suisse analysis.

### **Subprime Mortgages (Estimated 20% of Purchase Dollar Originations)**

The subprime mortgage market has historically been the last resort of financing for a prospective buyer. The borrowers that qualify for subprime loans tend to have poor credit histories, thereby requiring interest rates as high as 400 to 500 basis points above the average rate paid on conforming loans. Historically, the average subprime borrower was unable to secure conventional or FHA/VA financing due to an impaired or lack of credit history or an overly leveraged balance sheet. In recent years, the subprime market has taken share from government loans due its easing underwriting standards.

According to Inside Mortgage Lending, the prevalence of subprime mortgages has skyrocketed since 1994 (earliest data available) with the expansion in the economy, surging national home prices, and a ready-and-able secondary market that pushed spreads down on these risky loans. In 2006, subprime originations totaled approximately \$640 billion. In 2006, Wells Fargo, HSBC and New Century were the three largest subprime originators, representing 29% of the total market. Since year-end, Wells Fargo has announced tightening credit standards, HSBC has recorded bad loan provisions in excess of \$10 billion, and New Century's fate lies in the balance of its warehouse lenders. (See Exhibit 13 and Exhibit 14).

In the past five years, subprime purchase originations have more than doubled in share to approximately 20% of the total in 2006. Over this time period, subprime lenders eased underwriting standards in an effort to gain market share. Loans were made to first time homebuyers with little or no down payments, as 2006 subprime purchase originations posted an alarming 94% combined loan-to-value, on an average loan price of nearly \$200,000. Even more distressing is the fact that roughly 50% of all subprime borrowers in the past two years have provided limited documentation regarding their incomes. Last year, we estimate that Rhode Island, California, Mississippi, Illinois and Texas had the greatest percentage of subprime homebuyers (See Exhibit 15 and Exhibit 16).

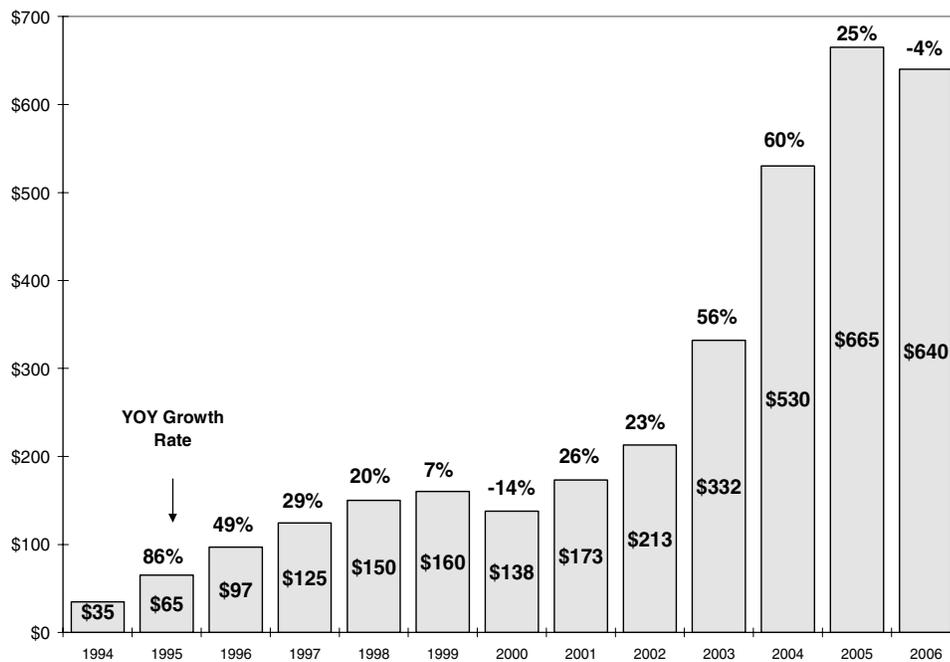
In recent days, several public homebuilders have commented on their exposure to the subprime mortgage market. Responses have varied greatly, ranging anywhere from 1% of total sales to nearly 20%. While we would be extremely surprised to see such a wide range in exposure among the various builders (especially those selling to similar price points), we are not terribly shocked to see the differing responses given the blurred boundaries between mortgage segments.

From speaking with our industry contacts, it appears that many builders and lenders have different internal definitions of what is considered a subprime mortgage. Some companies may classify any loan below a 620 FICO score as subprime, while others may account for risk layering and other characteristics such as documentation levels and loan-to-values. In our survey of private builders, responses for the subprime share of total home purchases ranged anywhere from the low single digits to more than 50% for one contact in Southern California, which speaks to the ambiguity in definitions.

In addition, we caution investors using the builders' statistics that the data only accounts for the percentage of loans captured through the builders' internal mortgage subsidiary or preferred lender. With capture rates averaging in the 60-80% range, this leaves roughly a quarter or more of the builders' business un-accounted for. Many of our contacts indicated that a disproportionate share of their non-captured home sales are subprime borrowers. If the same holds true for the publics, we would expect the builders' overall exposure to the subprime mortgage market to be greater than disclosed, although probably still slightly less than the broader market due to the fact that new homes are typically more expensive than a comparable existing home.

The fact that builders do not have, or have not historically tracked more in-depth credit statistics for their buyers leaves risk that any tightening could take the group by surprise, reminiscent of our concerns regarding investors nearly two years ago.

**Exhibit 13: Subprime Originations, 1994–2006**



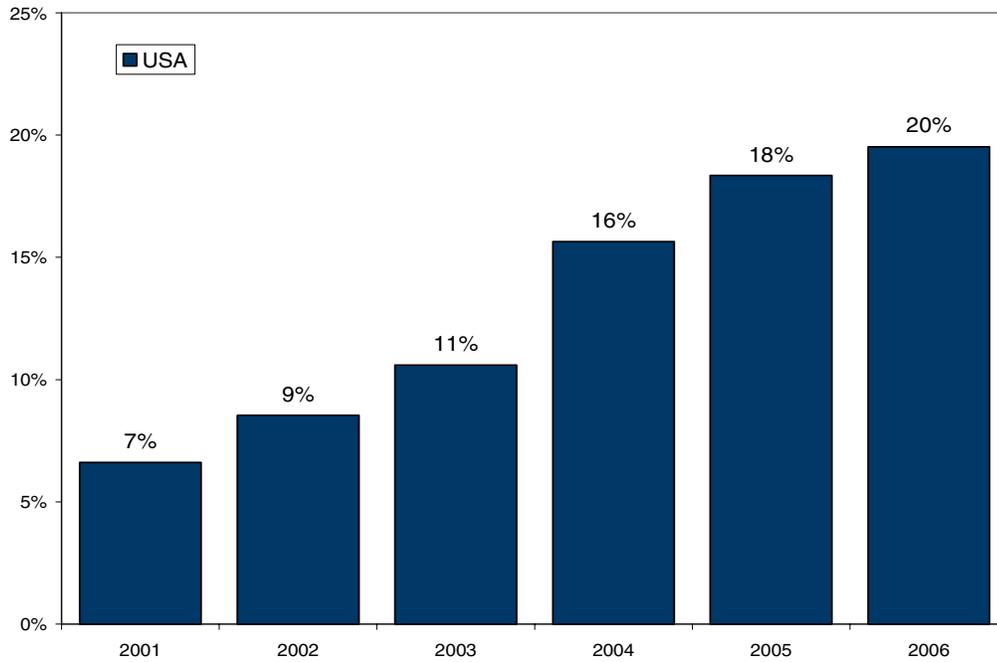
Note: Data include purchase and refinance originations.  
 Source: Inside Mortgage Finance Statistic Annual, 2007 Edition; Credit Suisse analysis.

**Exhibit 14: Top Subprime Lenders, 2006**

| Rank                   | Lender                | 2006       | Market Share (%) |
|------------------------|-----------------------|------------|------------------|
| 1                      | Wells Fargo           | \$ 83,221  | 13.0%            |
| 2                      | HSBC Finance          | 52,800     | 8.3%             |
| 3                      | New Century           | 51,600     | 8.1%             |
| 4                      | Countrywide Financial | 40,596     | 6.3%             |
| 5                      | CitiMortgage          | 38,040     | 5.9%             |
| 6                      | WMC Mortgage          | 33,157     | 5.2%             |
| 7                      | Fremont Investment    | 32,300     | 5.0%             |
| 8                      | Ameriquest            | 29,500     | 4.6%             |
| 9                      | Option One            | 28,792     | 4.5%             |
| 10                     | First Franklin        | 27,666     | 4.3%             |
| 11                     | Washington Mutual     | 26,600     | 4.2%             |
| 12                     | Residential Funding   | 21,869     | 3.4%             |
| 13                     | Aegis Mortgage        | 17,000     | 2.7%             |
| 14                     | American General      | 15,070     | 2.4%             |
| 15                     | Accredited Lenders    | 15,000     | 2.3%             |
| Top 15                 |                       | \$ 515,217 | 80.5%            |
| Total B&C Originations |                       | \$ 640,000 |                  |

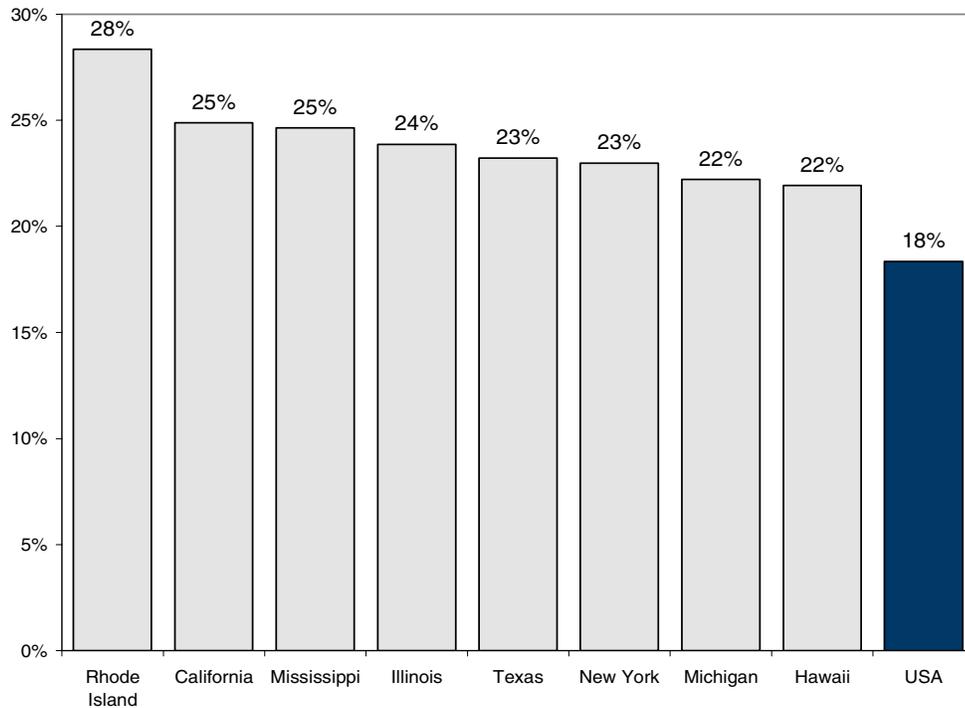
Source: Inside B&C Lending

**Exhibit 15: Subprime Share of Securitized Purchase Mortgage Originations, 2001-2006**



Source: Loan Performance, Credit Suisse U.S. Mortgage Strategy, Credit Suisse estimates.

**Exhibit 16: Subprime Share of Securitized Purchase Mortgage Originations by State, 2005**



Source: Loan Performance, Credit Suisse U.S. Mortgage Strategy, Credit Suisse estimates.

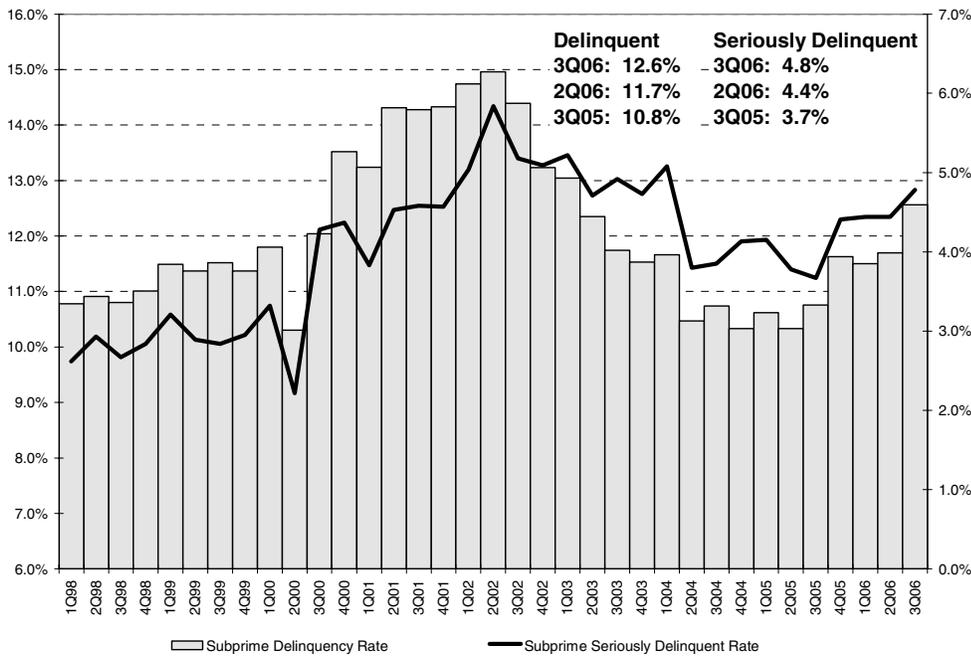
Despite the easing underwriting criteria, as shown in Exhibit 17, delinquency rates on subprime loans remained at historically low levels throughout most of 2004 and 2005, as record home price appreciation provided these marginal quality buyers with a buffer of equity used to either refinance into a more affordable mortgage or sell the home at a nice profit upon rate reset. This undoubtedly fueled even *further* easing of underwriting standards and growth in the subprime market. As one private builder indicated to us, in the past nine months anybody with a pulse that was interested in buying a home was able to get financing, which certainly helps explain the poor performance thus far of 2006 loan vintages. In the third quarter of 2006, nearly 13% of subprime mortgages were delinquent according to the Mortgage Bankers' Association. On March 1, Countrywide (the fourth largest subprime originator) indicated that payments were late on 19% of subprime loans at the end of 2006 versus 15% and 11% at the end of 2005 and 2004, respectively.

The pre-eminent mortgage product in the subprime lending world is the 2/28 hybrid ARM, which locks a buyer into a fixed rate (often with an initial teaser) for two years before recasting to the fully amortized rate at the time of reset. In 2006, 2/28 ARMs represented roughly 78% of all subprime purchase originations according to data from Loan Performance (See Exhibit 18).

As new subprime lenders continued to pop up on a daily basis throughout the housing boom, underwriters continued to loosen lending standards in an effort to gain market share; the effects of which are coming back to haunt the loan originators today in the form of early payment defaults. According to our contacts, homebuyers were primarily qualified at the introductory teaser rate rather than the fully amortizing rate, which for many buyers was the main reason they were even qualified in the first place. We believe that much of the subprime surge and easing of lending standards came in the aftermath of the refinancing boom from 2001-2003. Mortgage lenders had staffed up in order to handle the flood of refinance business and then were suddenly hit with a drop in business. In order to maintain production volume, originators began chasing the purchase market by easing underwriting standards and taking share from the GSEs. (See Exhibit 19 for an overview of characteristics of the subprime mortgage market).

All of these factors appear to have created a perfect storm of events, which in the past two months has led to an apparent free fall in the stock prices of any company with the slightest perceived exposure to the subprime world. The ABX index, which is a basket of 20 BBB-minus subprime bonds, has plummeted 30% since the start of the year. Since late 2006, more than thirty major subprime lenders have closed shop due to bad loans that have been put back to them by investors, and aggressive moves taken by investment banks to shut down warehouse lines extended to these lenders (i.e. the capital used to fund these mortgages). By now it is no secret that lending standards are significantly tightening across the entire subprime industry as a result of this liquidity crunch --- the only question remains how much of an impact it will have on incremental demand going forward.

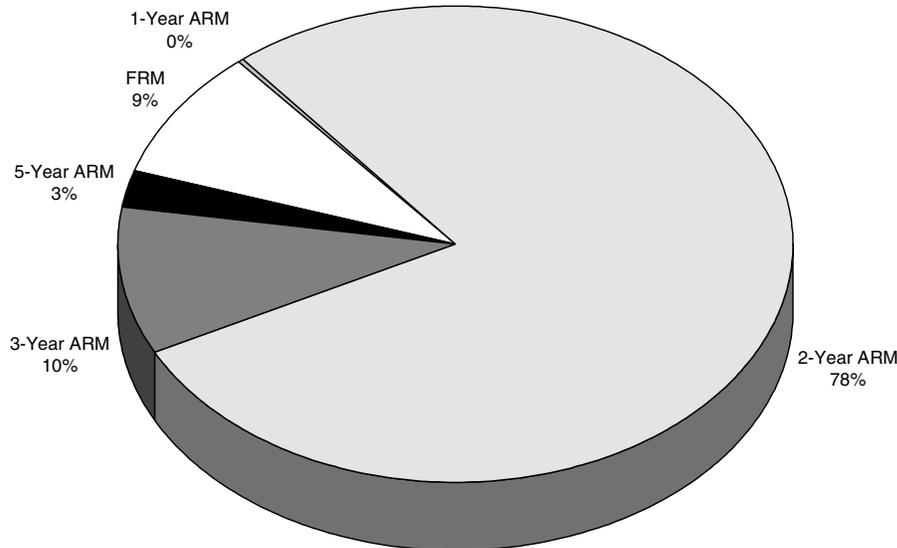
**Exhibit 17: Subprime Mortgage Delinquency Rates, 1998 through Third Quarter 2006**



A mortgage is deemed "seriously delinquent" if it is either 90 days past due or in the process of foreclosure.

Source: Mortgage Bankers Association, seasonally adjusted.

**Exhibit 18: Distribution of Subprime MBS Purchase Originations by Loan Type, 2006**



Note: Based on origination dollars.

Source: LoanPerformance, FHFB.

**Exhibit 19: Characteristics of Purchase Mortgage Originations Backing Non-Agency Subprime MBS, 2004-2006**

|                             | 2004   | 2005  | 2006  |                              | 2004      | 2005      | 2006      |
|-----------------------------|--------|-------|-------|------------------------------|-----------|-----------|-----------|
| <b>Product Type</b>         |        |       |       | <b>Property Type</b>         |           |           |           |
| IO FRM                      | 0.4%   | 0.7%  | 0.9%  | Single-Family                | 69.2%     | 67.7%     | 67.2%     |
| Other FRM                   | 10.3%  | 6.1%  | 7.6%  | Condo/Coop                   | 8.1%      | 8.9%      | 8.9%      |
| IO ARM                      | 26.8%  | 37.6% | 23.2% | 2-4 Units                    | 8.3%      | 7.8%      | 7.5%      |
| NegAm ARM                   | 0.0%   | 0.0%  | 0.4%  | Other                        | 14.4%     | 15.6%     | 16.5%     |
| Other ARM                   | 62.6%  | 55.7% | 67.9% | <b>Loan Type</b>             |           |           |           |
| <b>40-Year Mortgage</b>     |        |       |       | FRM                          | 10.6%     | 6.8%      | 8.5%      |
| 40-Year FRM                 | 0.0%   | 0.1%  | 0.3%  | 1-Year ARM                   | 0.5%      | 2.4%      | 1.2%      |
| 40-Year ARM                 | 0.0%   | 3.1%  | 5.3%  | 2-Year ARM                   | 70.4%     | 75.9%     | 77.9%     |
| Not a 40-Year Mortgage      | 100.0% | 96.8% | 94.4% | 3-Year ARM                   | 16.2%     | 13.4%     | 9.5%      |
| <b>Occupancy Status</b>     |        |       |       | 5-Year ARM                   | 2.2%      | 1.6%      | 2.6%      |
| Owner-Occupied              | 91.1%  | 90.6% | 91.4% | 7-Year ARM                   | 0.0%      | 0.0%      | 0.0%      |
| Investor                    | 7.4%   | 7.2%  | 6.3%  | 10-Year ARM                  | 0.0%      | 0.1%      | 0.3%      |
| 2nd Home                    | 1.5%   | 2.2%  | 2.3%  | <b>Other Characteristics</b> |           |           |           |
| <b>Documentation</b>        |        |       |       | Avg. FICO Score              | 650       | 650       | 646       |
| Full Doc                    | 54.6%  | 49.6% | 50.0% | Avg. Combined LTV            | 92%       | 93%       | 94%       |
| Low Doc                     | 44.6%  | 50.1% | 49.9% | Avg. Debt to Income Ratio    | 41%       | 42%       | 42%       |
| No Doc                      | 0.4%   | 0.3%  | 0.2%  | Avg. Loan Size               | \$181,320 | \$197,927 | \$199,769 |
| NA                          | 0.4%   | 0.1%  | 0.0%  |                              |           |           |           |
| <b>Simultaneous Seconds</b> |        |       |       |                              |           |           |           |
| w/ Simultaneous Second      | 33.3%  | 47.5% | 51.7% |                              |           |           |           |
| w/o Simultaneous Second     | 66.7%  | 52.5% | 48.3% |                              |           |           |           |

Note: All distributions are weighted by the dollar volume of mortgage originations.

Source: Loan Performance, Inside MBS & ABS, Fannie Mae.

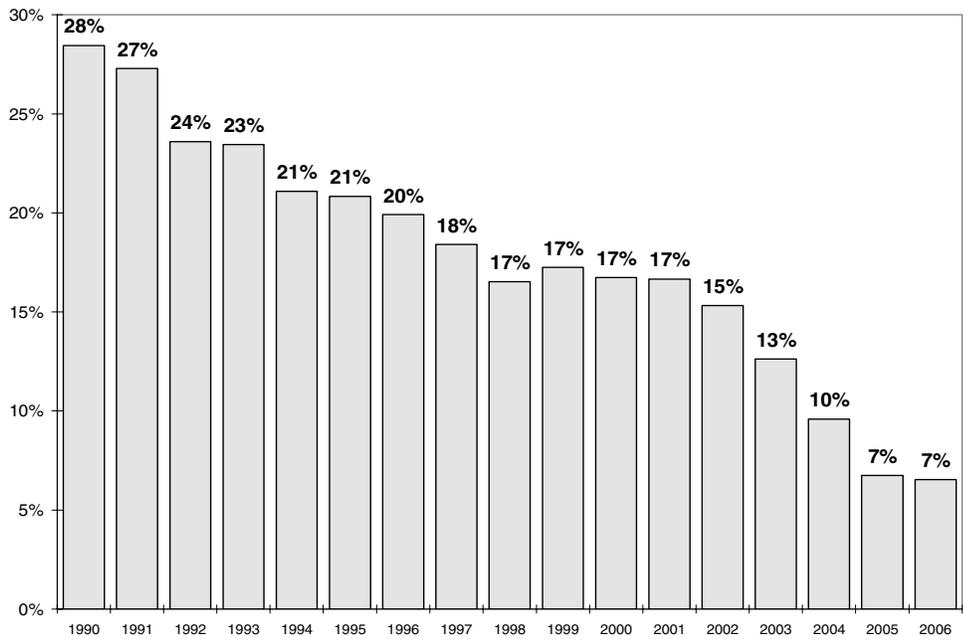
**Federal Housing Administration (FHA) and Veterans Administration (VA) Mortgages (Estimated 3% of Purchase Dollar Originations)**

The two remaining (and smallest) segments of the mortgage market are FHA and VA mortgages, which target homebuyers that are unable to qualify for conventional mortgages. Given the proliferation of the subprime market in recent years, which has far more lenient underwriting standards, these "government" loans have seen a market share decline from roughly 13% of purchase originations in 2002 to 3% in 2006. That said, according to the Census Bureau, government loans represented a slightly greater 7% of total *new* home sales in 2006, excluding the 3% of homes that were purchased with cash (See Exhibit 20).

FHA mortgages allow a buyer who might otherwise not qualify for a typical home loan to obtain financing because the FHA removes the risk to the lender. FHA mortgages generally have less stringent credit criteria and target lower-income buyers that have either poor or nonexistent credit histories that prevent them from securing a conventional mortgage. FHA loans require only a 3% down payment. However, to compensate the FHA for the additional risk, the borrowers are required to pay an upfront mortgage insurance premium equal to 1.5% of the loan value. The FHA's more lenient approval process is the principal reason borrowers would opt for an FHA loan over a conventional loan. FHAs have loan ceilings determined by the geographic region of the homebuyer. Virtually all FHA originations are securitized through Ginnie Mae's MBS program with a very small percentage purchased by the GSEs.

VA mortgages are virtually identical to FHAs in structure but are secured by the Veterans Administration instead. The biggest differences between the base VA and FHA loan are that the VA does not require a down payment, does not restrict the maximum amount a buyer may borrow, nor does it permit down payment assistance. Similar to FHA mortgages, VA originations are almost exclusively securitized through GNMA's MBS program.

**Exhibit 20: FHA/VA Share of New Homes Sold, 1990-2006**

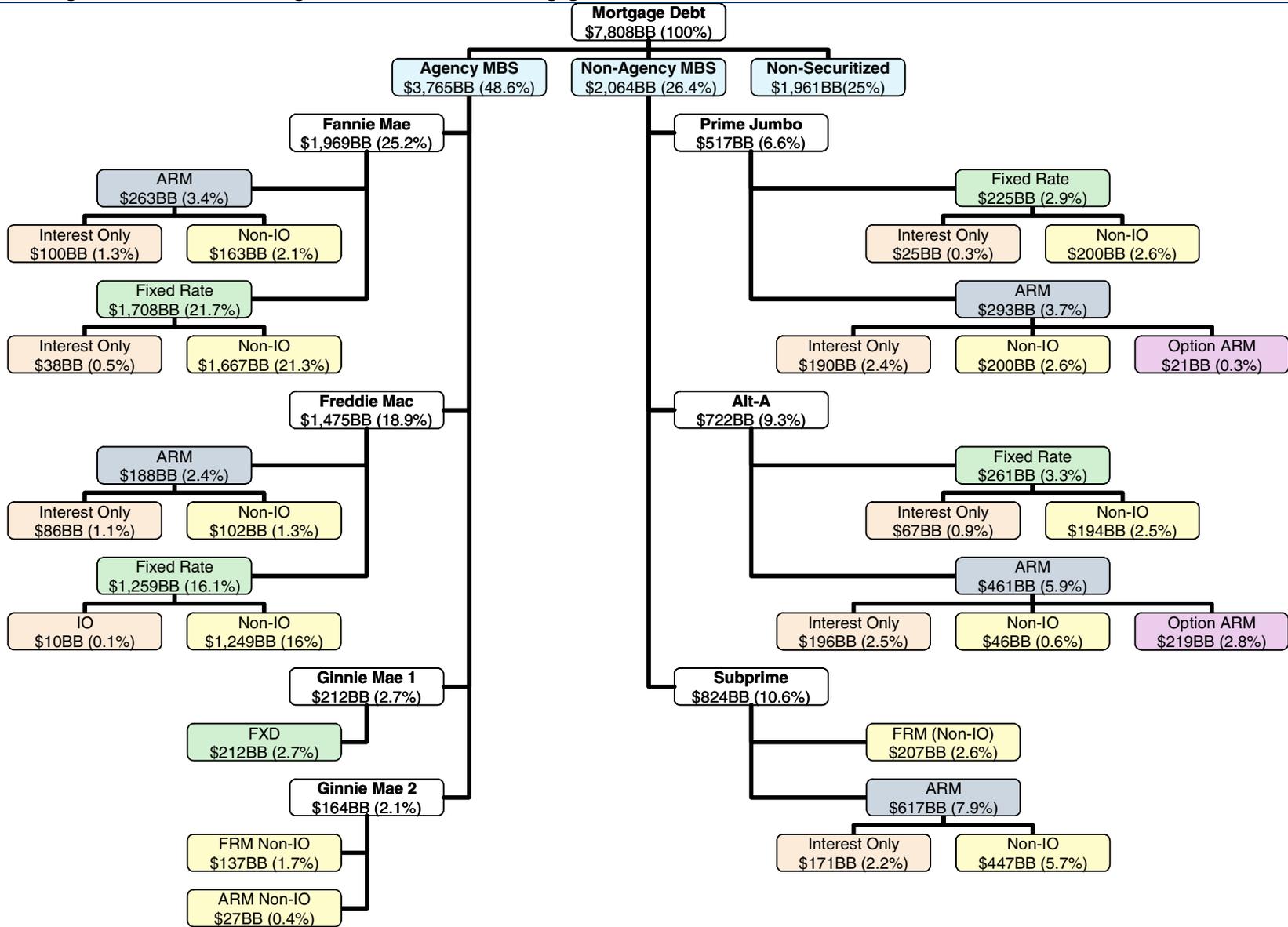


Lower credit historically underwritten by FHA/VA was stolen in recent years by private subprime originators.

*Note: Excludes homes purchases with cash. In 2006, only 3% of new homes were purchased with cash.*

*Source: U.S. Census Bureau*

**Exhibit 21: Segmentation of Outstanding First-Lien Residential Mortgage Debt**



Assumptions: Securitization rate 75%; Loan Performance Reporting rate: Prime and Alt-A: 75%, Subprime: 65%

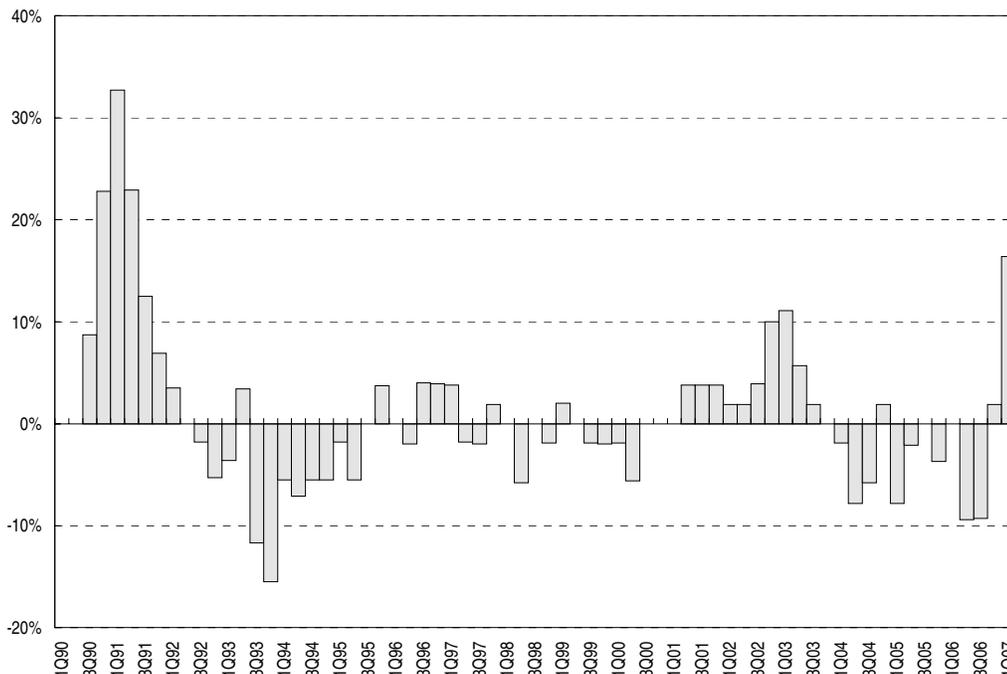
Source: Credit Suisse U.S. Mortgage Strategy

# Now That's Exotic...

While it is important to have a basic understanding of the broad mortgage market, as we outlined in the previous section of this report, the rapid shift into subprime and Alt-A mortgages does not come close to telling the whole story of the recent evolution of the industry. By now it is no secret that underwriting standards were severely compromised by mortgage lenders in the past three years. Subprime originators have taken the brunt of the punishment so far, with stock prices plunging and many lenders closing shop. What is not so obvious, however, is whether the risk is confined to these marginal quality subprime borrowers, or if the proliferation of exotic mortgage products and the fallout from the subprime market will create a ripple effect on demand throughout the entire mortgage market food chain.

We have long been of the opinion that the current housing downturn is as much a function of deteriorating affordability as an issue of over supply from fleeing investors and aggressive homebuilders (See our July 2004 report titled *"It's All About the Monthly Payment"*). In order to mitigate the record price increases seen throughout the majority of the country in the first half of this decade, homebuyers became increasingly dependant on exotic mortgage products intended to reduce down payments and monthly payments. In this section of our report, we highlight alternative mortgage products including interest only loans, negative amortization loans (option ARMs), piggybacks/second mortgages, and low/no documentation loans. While these "exotics" aren't necessarily new, they have grown to represent a significant portion of the overall mortgage market in recent years, and we believe that as lending standards continue to tighten, the riskiness of these loans and the quality of the buyers that use them will come under significant scrutiny by lenders and regulators. The majority of our private homebuilder contacts have confirmed a recent tightening in the past three months throughout the entire mortgage landscape, with particular tightening on subprime, low/no documentation loans and high CLTV/piggyback mortgages (See Exhibit 22 and Exhibit 23).

**Exhibit 22: Respondents Tightening Credit Standards, 1990 through First Quarter 2007**

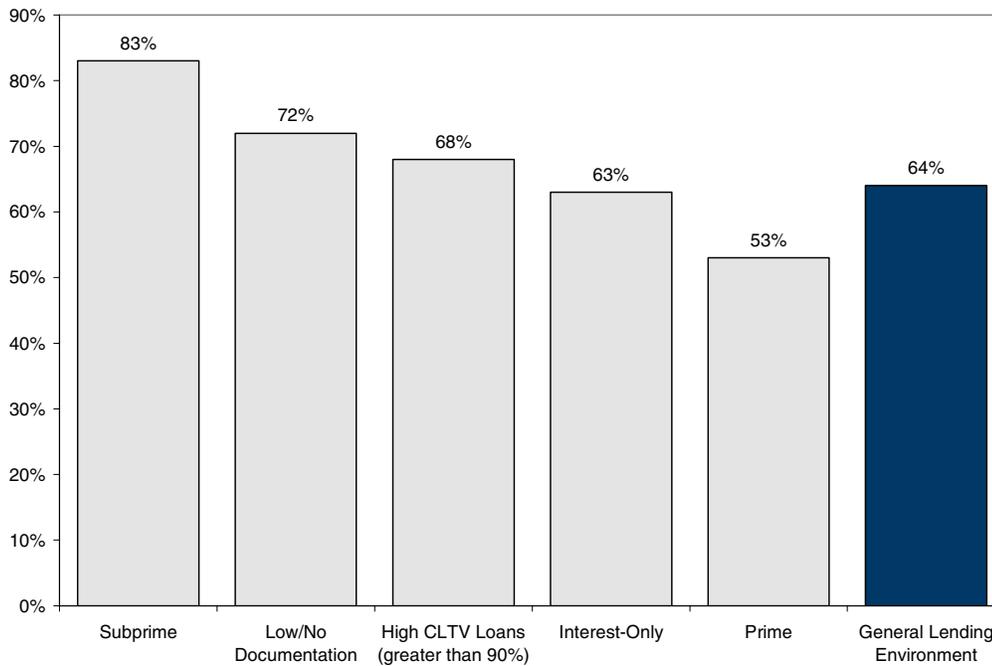


The Federal Reserve's Survey of Senior Loan Officers indicates that 16% of respondents tightened credit standards in the first quarter of 2007, marking the highest level of tightening since the second quarter of 1991. Respondents had reported flat to easing trends in 11 of the prior 13 quarters.

Note: A negative percentage indicates credit standards are easing.

Source: Federal Reserve Board's Senior Loan Officer Opinion Survey on Bank Lending Practices.

**Exhibit 23: Private Builders Reporting Tightening Lending Standards in Past Three Months**



Note: 3% of overall respondents indicated easing lending standards.

Source: Credit Suisse analysis.

**Piggybacks/Combined Mortgages (High CLTV Loans)**

For years, we have heard public homebuilders provide data on earnings conference calls related to the credit worthiness of their homebuyers. Commonly cited statistics, such as FICO scores and loan-to-value ratios, seem to typically remain in a tight band regardless of gyrations in market conditions, implying that there has not been a notable change in lending standards or credit/affordability conditions of homebuyers in recent years. Depending on the price point and location of the builder, average reported LTVs typically range somewhere between 70-80%, which would entail a fairly healthy down payment made by the average homebuyer. In addition, data released by the Federal Housing Finance Board, indicates that the average LTV on conventional loans in the fourth quarter was 77% (See Exhibit 24). While this is up roughly 300 basis points from the prior year, it still implies that homebuyers are putting down 23% of the purchase price of a new home.

As we wrote in *“Mortgage Liquidity: Don’t Underestimate the Underwriting”*, the widespread popularity of second mortgages (piggybacks) in recent years, which are not included in traditional loan-to-value calculations, has made these LTV datapoints particularly misleading and almost irrelevant. Based on data from SMR Research, approximately 40% of home purchase mortgages in 2006 involved piggyback loans through the third quarter, compared to 20% in 2001. In reality, the explosion of combined mortgages has allowed homebuyers to put down less money than ever before by leveraging up and having less skin in the game. When speaking with our private builder contacts, even we were surprised by just how little money recent homebuyers have put down, when taking piggybacks into account. Based on a survey of our builder contacts, their average *combined* loan-to-value ratio on home sales in 2006 was 91%, with 49% of homebuyers taking out a simultaneous second mortgage at the time of purchase.

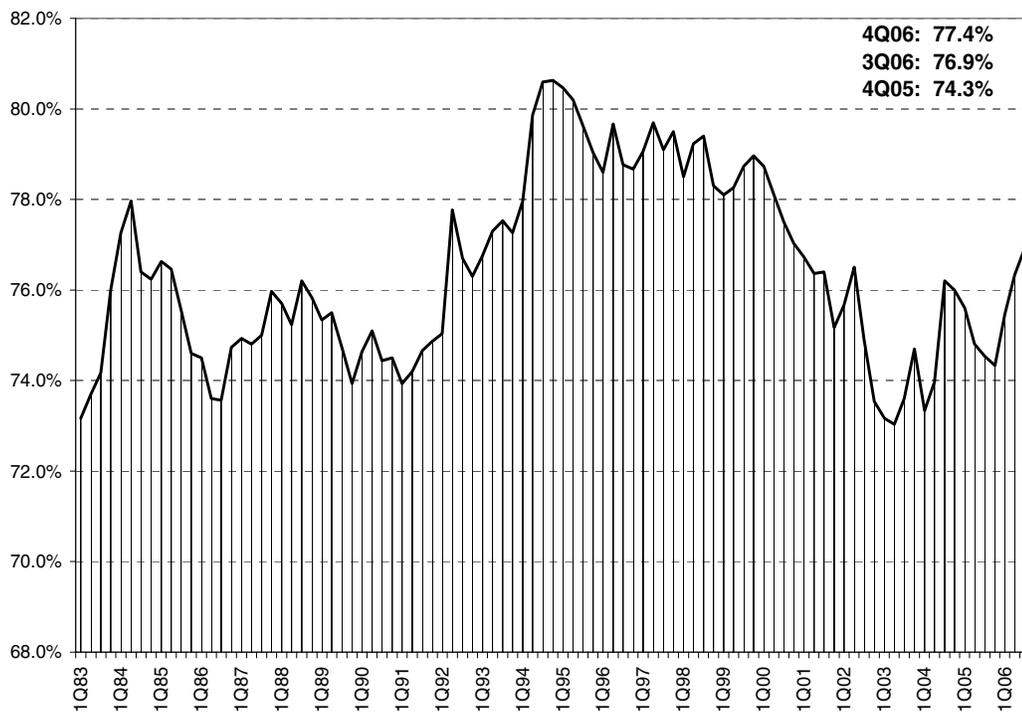
As mentioned in our discussion on conventional mortgages, homebuyers would historically put down at least 20% of the purchase price of a home with cash and finance the remaining amount of the price, which is in-step with the builders’ limited disclosures. The

minority of homebuyers that put down less than 20% of the total price were forced to take out private mortgage insurance (PMI). While mortgage insurance charges vary depending on the size, risk and down payment of the loan, PMI will typically cost a 95-100% LTV borrower approximately 1.0% of the loan amount per year, evenly spread over the twelve months. For example, an individual purchasing a home for \$300,000 and putting no money down would pay \$3,000 in insurance in the first year ( $\$300,000 \times 0.01$ ), or \$250 per month in addition to principal and interest payments.

The biggest disadvantage to paying mortgage insurance is that it is not tax deductible as mortgage interest and real estate taxes are (there is currently tax legislation set to eliminate this incongruity beginning in 2007). In an effort to sidestep this issue, borrowers could take out two mortgages, commonly referred to as a combined mortgage. With a piggyback loan, a borrower takes out a first mortgage for 80% of the total home price, and then can use a home equity loan, a home equity line of credit or another mortgage to cover the remaining 20%. A popular loan option referred to as an "80/20" means that a homebuyer is financing the first 80% of the home price with a standard mortgage, and the remaining 20% with a piggyback loan, implying that no money is being put down at closing. The second mortgage will generally carry a higher interest rate depending on the product used, but the borrower benefits by avoiding the requirement of mortgage insurance. In addition, the interest on the second mortgage is tax deductible, which adds a further advantage compared to paying mortgage insurance.

In its infancy, piggyback loans were primarily used to avoid paying mortgage insurance. In recent years, however, the share of loans with piggybacks has skyrocketed in markets that have seen the greatest price increases, indicating that the mortgage product has evolved into a tool used by homebuyers to purchase a home potentially above their means. As shown in Exhibit 25, more than 60% of homes purchased in 2006 had piggyback loans attached to them in hotbeds such as Los Angeles, the Inland Empire, Las Vegas, and Sacramento.

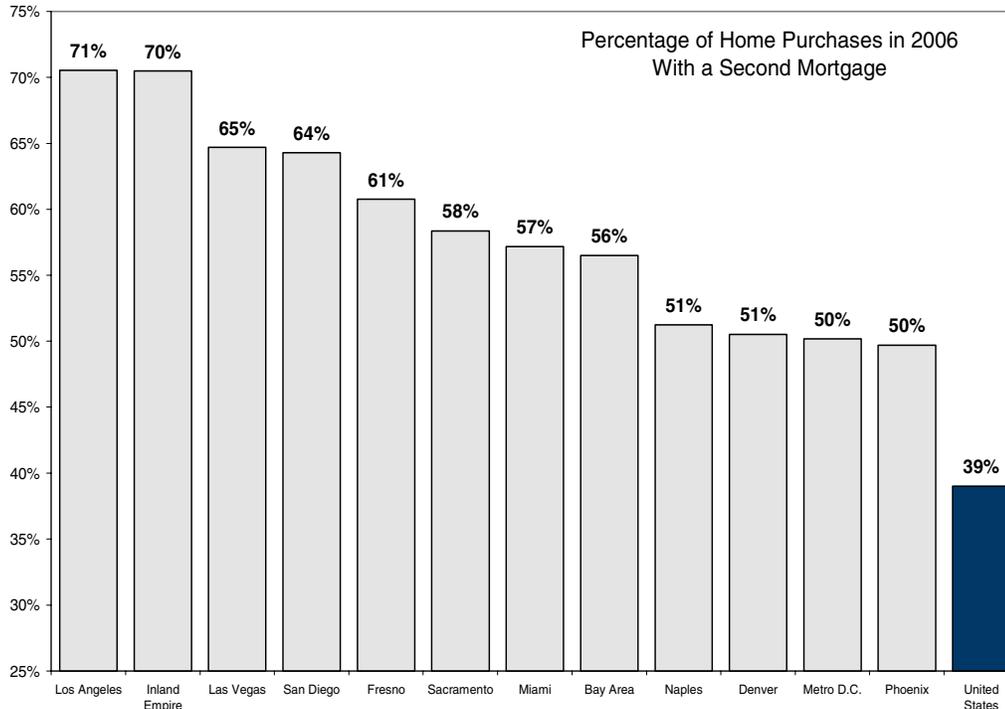
**Exhibit 24: Average Loan to Value on Conventional Loans, 1983–2006**



The widespread popularity of second mortgages (piggybacks) in recent years, which are not included in traditional loan-to-value calculations, has made these LTV datapoints particularly misleading and almost irrelevant.

Source: FHFB.

**Exhibit 25: Percentage of Home Purchases Including Piggyback Loans, 2006**



Note: Data Through 3Q06. Only includes homes with financing.

Source: SMR Research, Credit Suisse analysis.

Given the abundance of piggyback loans, we believe it is more accurate to look at the combined loan-to-value ratio of borrowers when gauging the overall health and affordability of recent homebuyers. As shown in Exhibit 26, an estimated 46% of home purchases in 2006 had combined loan-to-value ratios of 95% or higher, with more than half of all home purchases falling under this bucket in markets such as the Inland Empire, Las Vegas, Fresno, Detroit and Fort Myers (just to name a few!).

A misconception that we commonly hear is that the growth in piggyback loans has generally been isolated to the subprime mortgage arena. As demonstrated in Exhibit 27, while more than half of all subprime mortgages had a simultaneous second mortgage associated with them, Alt-A and jumbo loans have seen similar growth in piggyback prevalence in recent years. In fact, 55% of securitized Alt-A mortgages in 2006 had simultaneous seconds attached to them. While data for the PCC component of the market is not available, we would suspect a similar growth trajectory.

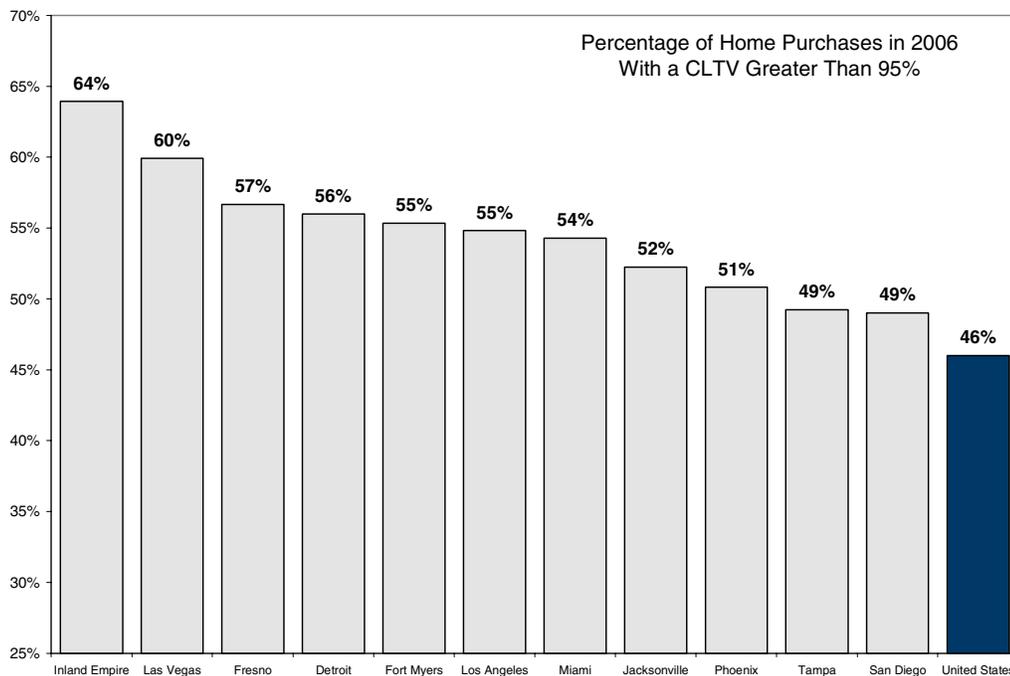
Since these piggybacks are second-lien loans, loss ratios are extremely high (if not 100%) in the event of a default. As this scenario is continuing to play out, piggyback lenders are getting burned, prompting some lenders to exit the business. Just three weeks ago, Fremont General Corp., a top 10 subprime lender, announced that it would no longer be providing these second mortgages to borrowers (the company has since exited the subprime market completely). On March 7, Option One (the 9<sup>th</sup> ranked subprime lender based on 2006 origination volume) announced that it would no longer originate any loans with CLTV's above 95% due to the secondary market's lack of appetite for these loans. Two days later, Countrywide announced that it would no longer be offering any 100% LTV products, effective immediately.

We believe it is extremely likely that other major piggyback lenders will follow suit, as investors' interest in these high-risk loans continues to wane making it unprofitable for issuers to originate them. Moreover, in the event that additional lenders aim to cut back on

high CLTV loans (a scenario that we view as increasingly likely as credit continues to deteriorate), marginal buyers who have little or no money for a down payment could be priced out of the market. Clearly, subprime borrowers are the first tranche of the market that will feel the impact of the tightening, as the average CLTV on these purchase originations was a lofty 94% in 2006, although we would not be surprised to see the other segments of borrowers to feel the pinch as well. (See Exhibit 28).

Finally, in response to the suggested notion that higher-end builders will be immune to any tightening on high CLTV mortgage products, we return to our analogy of comparing the housing market to a food chain. While builders such as TOL and WCI will have a greater percentage of buyers putting down higher down payments, these companies can still find themselves affected if potential buyers are unable to sell their existing homes to buyers that previously would have used a 95% CLTV loan to buy the home. While the entry level builders will likely feel the impact first, we would expect the ripple effects of credit tightening to eventually work its way throughout the entire housing market.

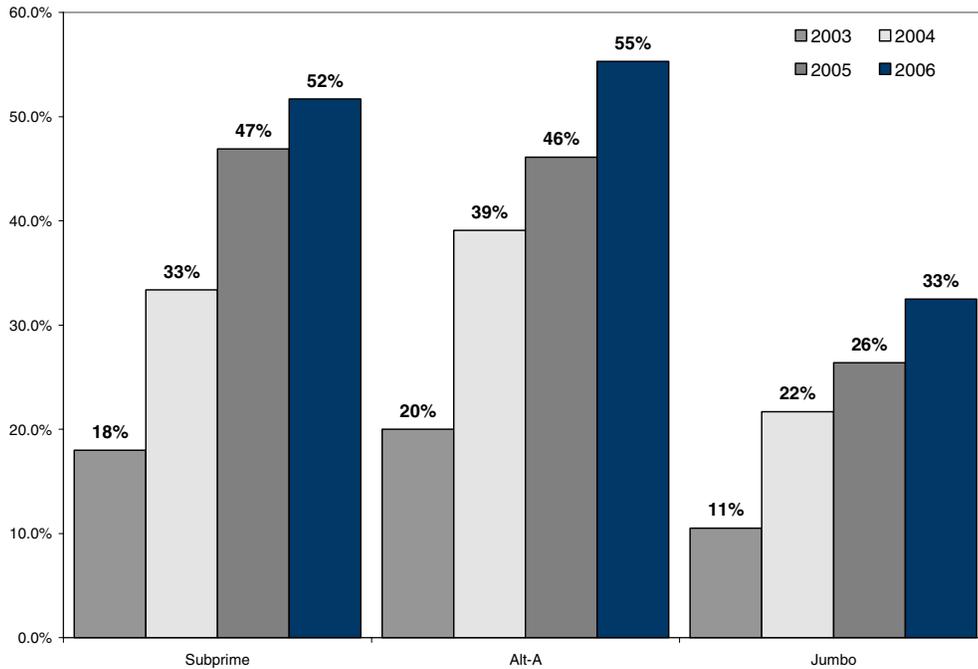
**Exhibit 26: Percentage of Home Purchases With CLTVs Greater Than 95%**



Note: Data Through 3Q06. Only includes homes with financing.

Source: SMR Research, Credit Suisse analysis.

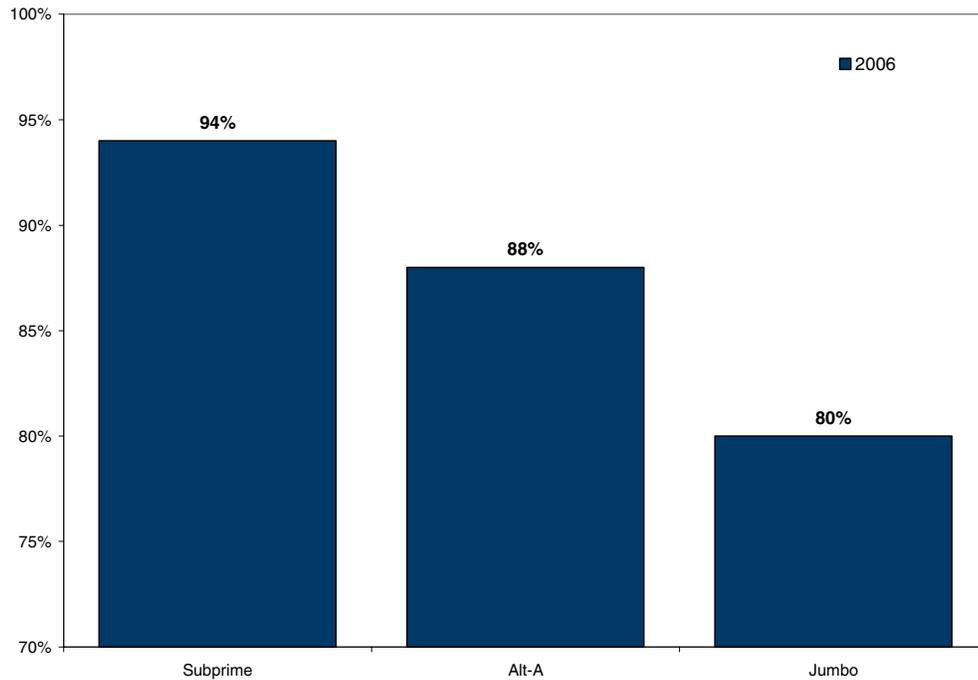
**Exhibit 27: Percentage of Purchase Mortgages With Simultaneous Seconds (Piggybacks) by Loan Type, 2003-2006**



Note: Prime Conventional Conforming data is not available. Based off of securitized loan data. Annual percentages may not be directly comparable due to differing reporting rates.

Source: Loan Performance, Credit Suisse analysis.

**Exhibit 28: Average Combined Loan-to-Value by Loan Type, 2006**



Note: Prime Conventional Conforming data is not available. Based off of securitized loan data.

Source: Loan Performance, Credit Suisse analysis.

## Interest-Only (IO) and Negative Amortization (Neg-Am) Mortgages

While piggybacks are used to mitigate the lack of cash available for down payments, interest only and negative amortization loans are used to reduce monthly payments. Contrary to popular belief, an interest-only mortgage is not a new “type” of loan. Instead, it is an option that can be attached to any traditional loan such as an adjustable rate mortgage or a fixed rate mortgage, although the vast majority of interest-only loans are associated with ARMs. The reason for this is that the primary goal of an “IO” mortgage is to minimize monthly costs in the beginning period of a mortgage, and ARMs typically carry lower initial mortgage rates than fixed rate mortgages. An interest-only loan borrower has the option to pay a fully amortized payment or just pay interest costs each month. The option to pay just interest usually only lasts for a limited period of time, at which point fully amortized payments are required.

For example, if a 30-year loan of \$300,000 at 6.25% is interest only, the required payment in the first month is roughly \$1,560 per month during the initial IO payment period. The required payment on a fully amortized loan would be \$1,850, with the incremental \$290 per month going towards paying down principal.

The “big brother” of interest only mortgages is the negative amortization mortgage, which in recent years has gained popularity. The neg-am mortgage, which is often used synonymously with “option ARM”, provides homebuyers with an extra payment option each month. In addition to paying the fully amortized payment or just interest costs, an option ARM actually allows borrowers to make a “minimum” payment that is less than interest costs. The minimum payment option results in a homebuyer actually having negative equity in their home, absent an increase in the value of the house (i.e. the borrower owes more at the end of the month than it did at the beginning).

Similar to an interest only mortgage, option ARMs only provide borrowers with these payment options for a finite timeframe, which sets the stage for a significant payment shock when payments are recast to the fully amortizing rate at the current interest rate level. Depending on the amount and terms of the loan, monthly payments could increase in excess of 40% upon rate reset on these types of mortgages.

Historically, these mortgage options were ideal for homebuyers with inconsistent income patterns (i.e. Wall Street Bankers) who enjoyed the flexibility of making minimal monthly payments during times of low cash flow, or large principal payments when cash flows were stronger. More recently, however, use of this option has grown tremendously due to its benefits for homebuyers looking to make a quick profit on a home. As the investor share of the market surged from 2003-2005, so did the amount of homebuyers electing the IO or neg-am payment options.

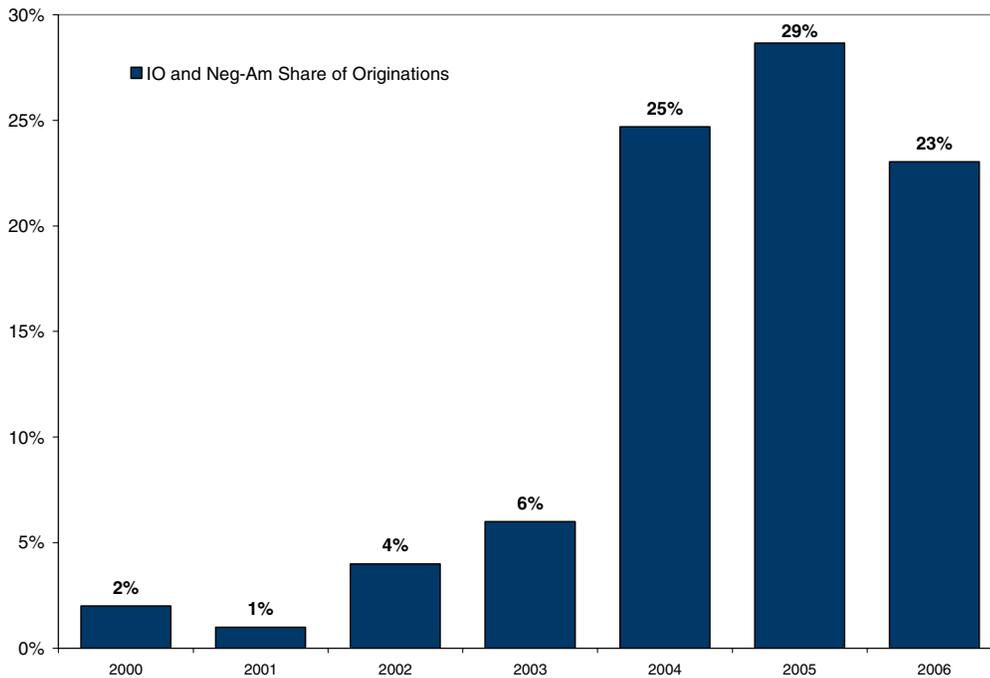
In our opinion, however, a more problematic group of homebuyers that have utilized the interest-only or neg-am options have been those that have used the lower initial monthly payments in order to qualify for a home above their means (or any home in general). In September 2006, the Office of the Comptroller of the Currency (OCC) issued interagency guidance on this topic, urging lenders to qualify non-traditional borrowers based on the fully amortized payment rather than just the interest payments or minimum payments during the initial option period. As demonstrated in our example above, the difference can be quite meaningful (nearly 20% in this case). While it is uncertain exactly how many of the recent option ARM and IO borrowers would have been unable to qualify under these tougher standards, based on our conversations with mortgage lenders, it is clear that they believe it is a cause of concern.

As shown in Exhibit 29, an estimated 23% of total purchase originations in 2006 were interest-only or negative-amortization mortgages. According to our private builder survey, interest-only and option ARMs represented 24% of total home sales in 2006, in-line with our market-wide estimates. This was down slightly from the levels seen in 2004 and 2005, most likely due to the decline in investors in high priced markets, as well as lenders tightening qualification standards in anticipation of the OCC's guidance on non-traditional

mortgage lending standards (recall from Exhibit 22 that senior loan officers reported tightening credit standards in 4Q06 for the first time in eight quarters). Nevertheless, IOs and option ARMs still represent a meaningful portion of the mortgage market, and we would expect these incremental originations to decline as lenders continue to tighten standards on the heels of poor credit performance.

As we highlighted in our discussion on Alt-A mortgages, option ARMs have contributed to much of the growth in this segment of the mortgage market in recent years. As shown in Exhibit 30, interest only and option ARM loans represented approximately 62% of Alt-A purchase originations in 2006. Similar to piggybacks, the prevalence of IOs and option ARMs has been disproportionately weighted to high priced MSAs such as the major California markets, Las Vegas, and Phoenix (See Exhibit 31).

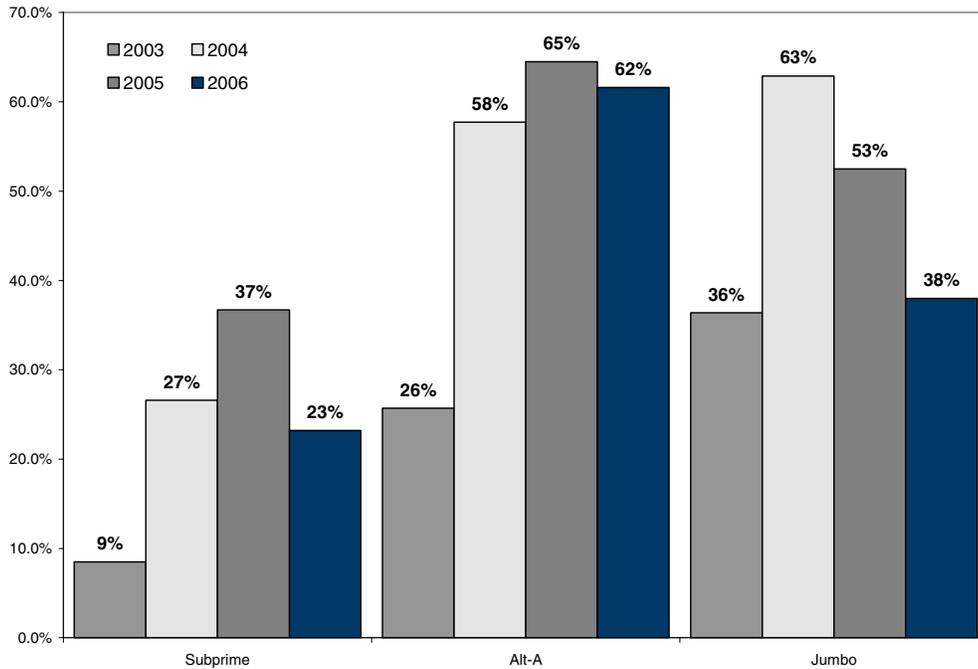
**Exhibit 29: Interest-Only and Negative Amortization Share of Total Purchase Mortgage Originations, 2000-2006**



Note: Based off of origination dollars.

Source: Loan Performance, Credit Suisse analysis.

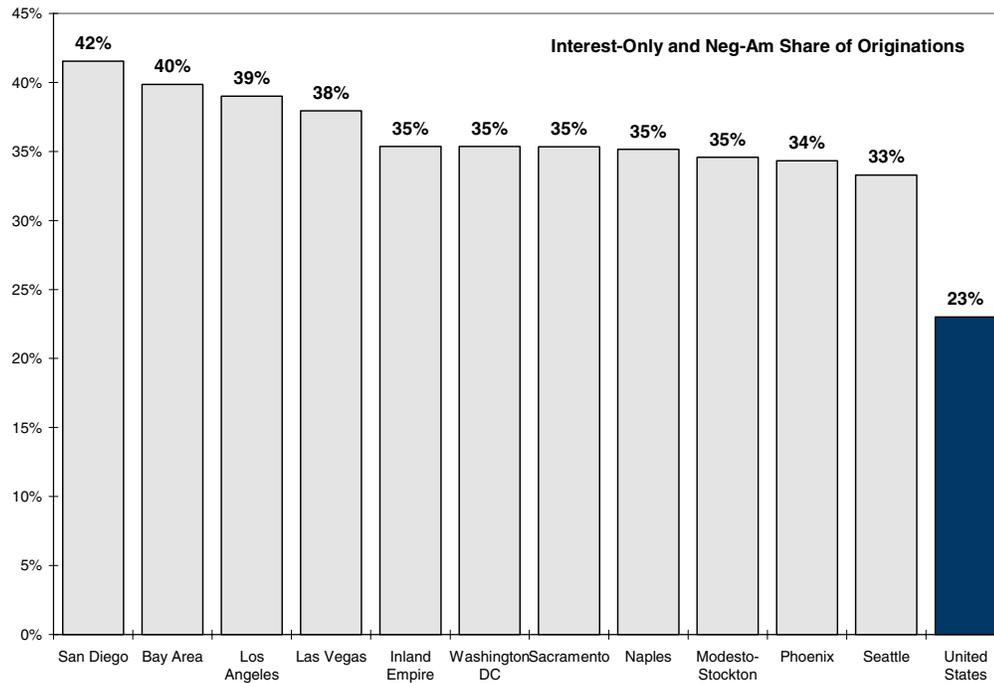
**Exhibit 30: Interest-Only and Negative Amortization Share of Total Purchase Mortgage Originations by Loan Type, 2003-2006**



Note: Based on origination dollars of securitized loan data.

Source: Loan Performance, Credit Suisse analysis.

**Exhibit 31: Interest-Only and Negative Amortization Share of Mortgage Originations by Market, 2006**



Note: Based on unit volume.

Source: Loan Performance, Credit Suisse analysis.

## Low/No Documentation Loans

The third type of “exotic” mortgage that has come under significant scrutiny of late deals with the amount of income verification provided on loan approvals. A lender’s documentation requirements pertain to the information about income and assets provided by the borrower and how that information is verified by the lender. Oftentimes when industry participants speak about tightening or loosening lending standards, they are largely referring to the issue of income and asset verification.

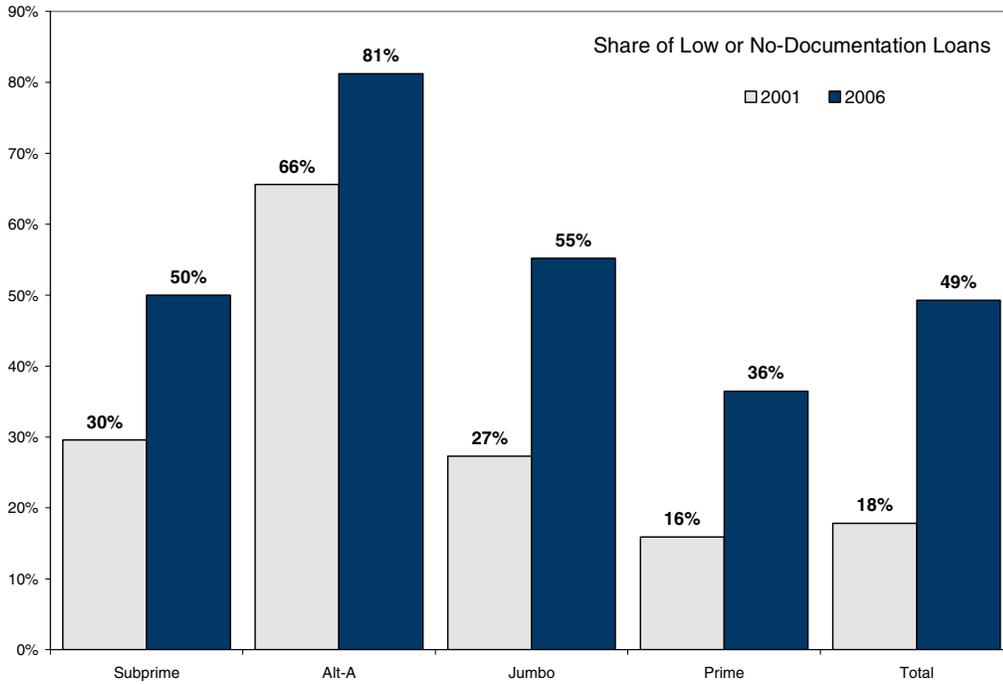
Just five years ago, the vast majority of borrowers provided full documentation of their income and assets, and lenders verified this information in writing with the appropriate third parties (employers, banks, etc.). We estimate in 2001, these “full-doc” loans represented approximately 82% of all purchase originations. Low and no documentation loans were typically reserved for self-employed homebuyers that had difficulty providing or did not want to share information that demonstrated their full earnings potential, or borrowers that had recently moved/switched jobs.

Realizing that the documentation process was quite onerous and time consuming (at least in the opinion of the lenders), more originators began easing their requirements to borrowers that did not wish to/or could not provide full documentation. “Stated income” loans began to gain popularity, which is exactly as the term implies --- the borrower tells the lender what his/her income and asset levels are, and the lender underwrites the loan based on that information. The stated income borrower may provide limited documentation to support his/her income and assets (i.e. pay stub, bank statement, etc.), or no documentation at all (as a growing portion of borrowers have decided to do). To compensate for the added lending risk, originators charge these stated income borrowers a slightly higher interest rate (which had been roughly 25 basis points) depending on the level of documentation. Still, many recent homebuyers preferred these limited documentation options, as low/no documentation loans increased from just 18% of total purchase originations in 2001 to 49% in 2006 (See Exhibit 32). As shown in Exhibit 33, while the share of low/no documentation loans appears to be the highest in former investor hotbeds such as California, Las Vegas and Florida, there is not much of a dropoff in other parts of the country. Based on a survey of our private homebuilders, the percentage of buyers providing limited-to-no documentation was similar on the new construction side of the business to the overall market, with 46% of our contacts’ homebuyers, on average, providing low/no documentation on home sales in 2006 (See Exhibit 34).

While the merits of a less time consuming mortgage qualification process can certainly be debated, opponents argue that the process opens the door to fraud. Stated income loans, which are sheepishly referred to as “liar loans” by many, have begun to earn their nickname. A 2006 study by the Mortgage Asset Research Institute sampling 100 stated income loans found that 60% of borrowers had “exaggerated” their income by more than 50%. We have also several examples of stated income borrowers claiming to be self employed, only to have their credit reports indicate that they have been employed within the past two years (most stated income loan programs supposedly require a minimum history of two years of self-employment). In the past few years, nobody bothered to red flag these situations. In recent weeks, however, we are hearing increased anecdotes of the lenders going back to these prospective borrowers and asking for full documentation.

The crackdown on these mortgage products has already begun. Last week, Wells Fargo announced that it has completely discontinued its stated income/limited documentation loan programs in the state of Ohio. The announcement was made in response to the recently enacted Ohio Senate Bill 185, which suggests that certain mortgage products originated in Ohio by non-bank entities may not be included in securitization pools. While this announcement has not received much media attention, we believe it could be a major event if other states pass similar legislation. The Credit Suisse Group of External Affairs and Public Policy believes that this legislation could potentially be brought to the federal level within the next 18 months, implying that we will likely see the share of low and no documentation loans decline drastically throughout the country in the coming months.

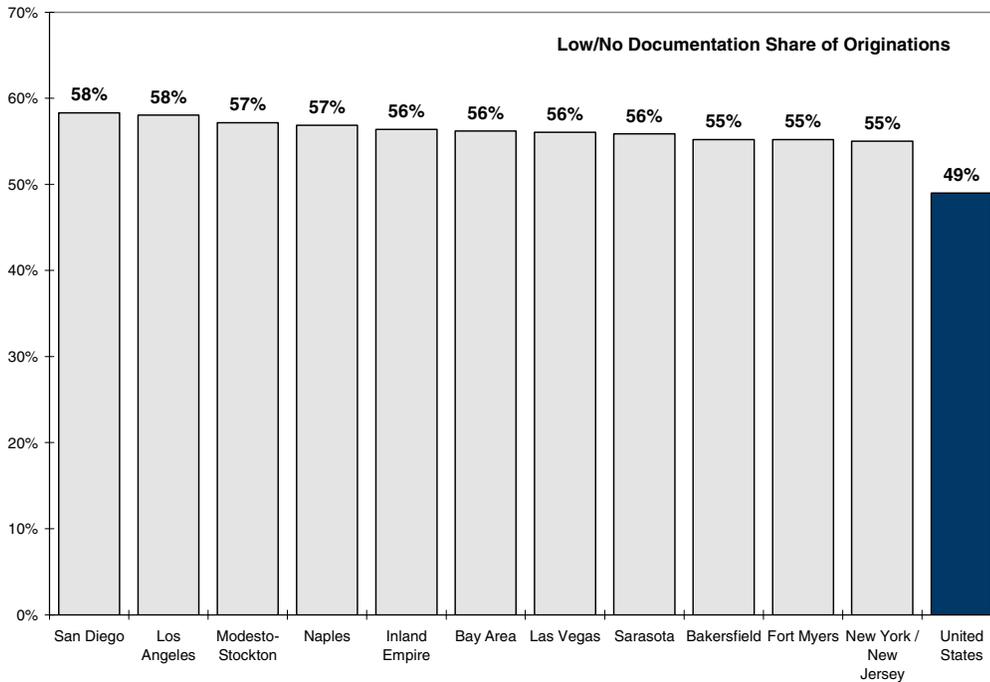
**Exhibit 32: Distribution of Low/No-Doc Share of Purchase Originations, 2001 versus 2006**



Note: Based on origination dollars of securitized loans.

Source: Loan Performance, Credit Suisse analysis.

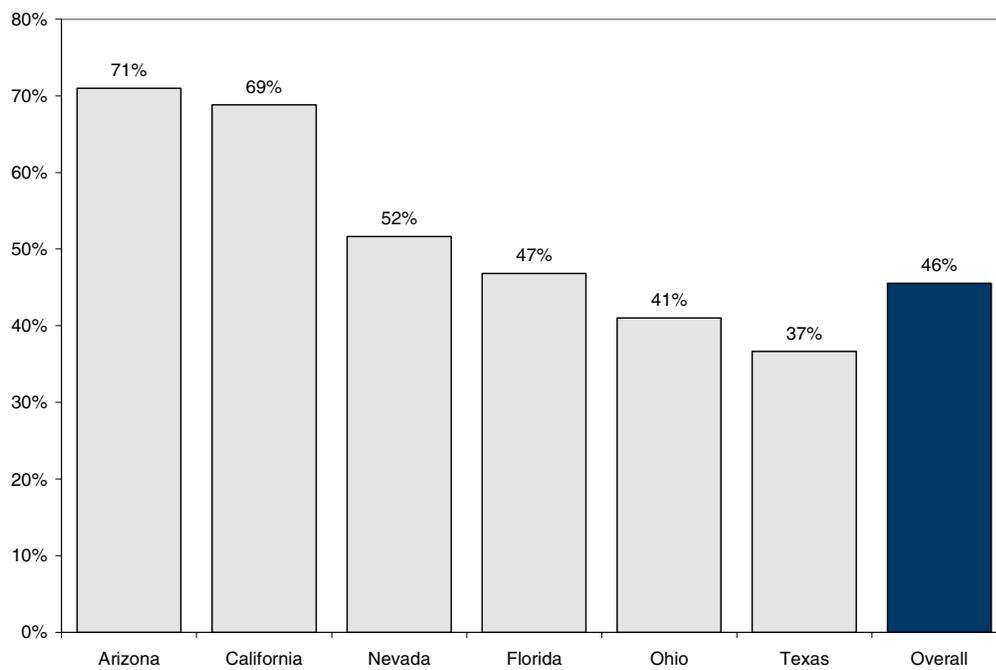
**Exhibit 33: Low/No-Documentation Share of Mortgage Originations by Market, 2006**



Note: Based on unit volume.

Source: Loan Performance, Credit Suisse analysis.

**Exhibit 34: Private Builder Low/No-Documentation Share of Total Purchases for Select States, 2006**



Source: Credit Suisse analysis.

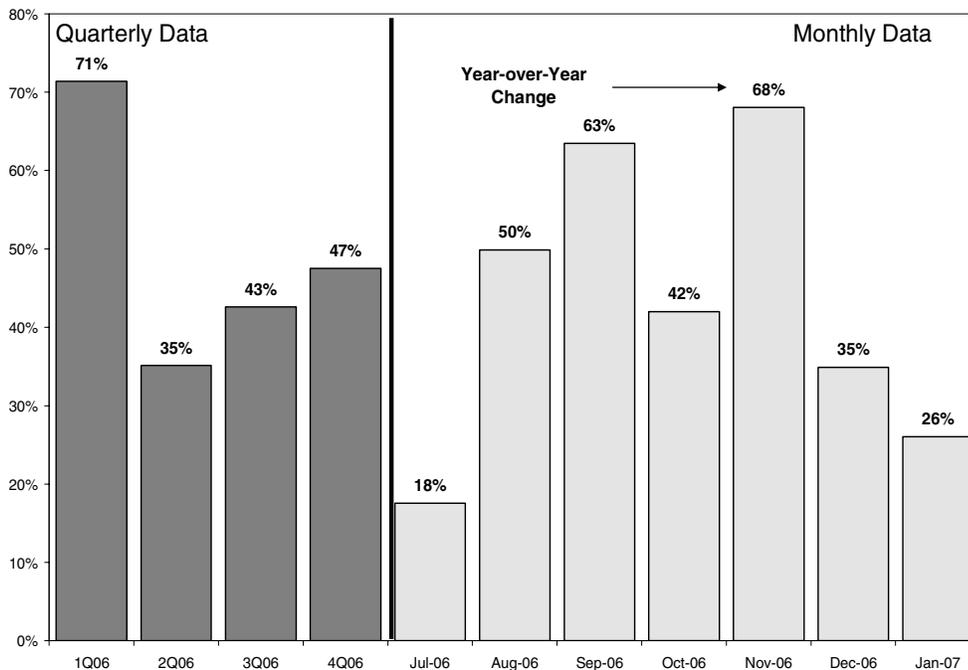
# Foreclosures, Delinquencies, and EPDs Oh My!

The first two sections of this report were focused on providing a backdrop of the mortgage market, and how it has evolved in recent years. We have discussed the mortgage products that are at greatest risk for increased scrutiny from regulators and highlighted some recent events and potential courses of regulatory action. While much of the focus in the next few months for the builders will likely be on credit tightening and how that will impact homebuyers' ability to get financing, we do not want to underestimate the impact that rising foreclosures and delinquencies will have on the supply and pricing dynamics of the housing market. In recent months, several public homebuilders' have alluded to the theory of pent-up demand in the marketplace. Given the recent credit deterioration in the subprime and Alt-A markets, and the likely fallout throughout the entire housing chain, we are of the opinion that there is a very real threat of "pent-up supply" that will hit the market in the next six-to-twelve months as a result of the lax underwriting standards of recent years.

## The Anatomy of a Foreclosure

As we have written many times in the past, we believe that the upward trend in foreclosures seen recently is indicative of the heightened leverage taken on by homebuyers through the past several years of robust price appreciation and record-low interest rates. In January, RealtyTrac reported that roughly 130,500 homes entered the foreclosure process across the country, which represented the highest level since the company began disclosing the data two years ago. January's level was up 26% from the prior year and up 19% from December 2006 (See Exhibit 35).

**Exhibit 35: Total U.S. Foreclosures 2006-Present**



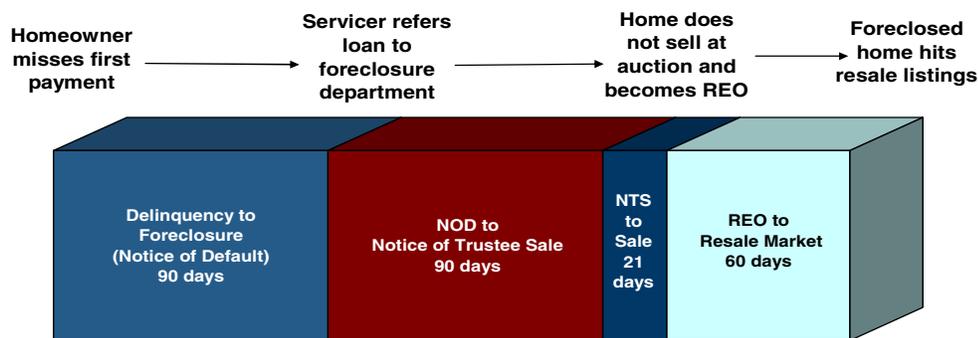
Source: RealtyTrac

While RealtyTrac's data has become the go-to source of foreclosure information for many industry participants, the absolute number of homes entering foreclosure each month does not clearly depict the impact and timing on future housing supply. As illustrated in Exhibit

36, there are three basic stages of the foreclosure process. While the timing of each stage can vary depending on state laws, based on conversations with industry experts we believe it may take anywhere from six-to-twelve months for a home to move through the entire foreclosure process and finally end up as a unit of inventory.

On a trailing six month basis (we take the low-end of our potential duration of the foreclosure process), roughly 700,000 homes have entered foreclosure based on RealtyTrac's data. While we admit that we have no way of knowing how many homes that enter the foreclosure process are ultimately cured, we present below a basic timeline of the average foreclosure to give investors an understanding of the foreclosure process, and how a home entering foreclosure today may not end up as inventory for up to a year from now.

**Exhibit 36: Average Life Cycle of a Foreclosure**



Notice of Defaults become new listings in approximately 120-180 days  
 Notice of Trustee Sales become new listings in 30-90 days  
 REO's become new listings up to two months after auction

Source: RealtyTrac, Credit Suisse analysis.

After a homeowner misses his/her mortgage payment, the loan servicer begins its collection efforts. This process typically lasts for 90 days. If payment is still not received after 90 days, a *notice of default (NOD)* is filed. In some states this may be referred to as *lis pendens (LIS)*, although the two classifications are essentially the same. In January, approximately 47,300 homes entered this stage of the foreclosure process, or roughly 36% of total homes entering foreclosure in January according to RealtyTrac. If the default is not cured, NODs and LISs are still at least 120-180 days away from becoming resale listings. Based on our trailing six month total of homes entering the foreclosure process, we estimate that there are roughly 250,000 homes in this stage of foreclosure.

Approximately 90 days after the notice of default (again, this varies by state), a *notice of trustee sale (NTS)* or *notice of foreclosure sale (NFS)* is made, which serves as a public announcement of an upcoming auction for the home. In January, there were approximately 59,300 homes entering this stage of the foreclosure process, or roughly 45% of total homes in foreclosure according to RealtyTrac. Homes in this stage of the foreclosure process are still at least 30-90 days away from hitting the resale listings. Based on our trailing six month total of homes entering the foreclosure process, we estimate that there are roughly 315,000 homes in this stage of foreclosure.

Roughly three weeks after the notice of trustee sale, a public auction is held for the property. If the home sells at the auction, then the foreclosure is removed from the foreclosure data. Still, it may take several months for the winning bidder to gain occupancy

or control of the home (depending on the condition of the home and whether eviction is necessary). If the winning bidder is an investor, then the home may end up back on the market after the sale is closed.

If the home is not sold in the auction, then the property becomes an *REO*, which stands for *real estate owned*. This is when the title of the property is passed on to the lender, and it is the bank's responsibility to sell the home. In January, there were approximately 23,900 homes entering this stage of the foreclosure process, or roughly 19% of total homes entering foreclosure in January according to RealtyTrac. Based on our trailing six month total of homes entering the foreclosure process, we estimate that there could be *as many* as 135,000 homes in this stage of the foreclosure process. This number will vary based on how many homes ultimately sell at auction, as only homes that go unsold remain in *REO* counts. These foreclosed homes are "must sell" homes and typically enter the MLS inventory system in about two months after auction. Given the fact that banks are not in the business of selling homes, prices are usually slashed significantly on these homes, which in turn may pressure pricing elsewhere in the market.

All of this information begs the obvious question, what does this mean for future supply and pricing trends? While it remains to be seen what percentage of NODs ultimately turn into REOs (some will be cured and others will be sold in auction), we note that there are roughly 565,000 homes in the foreclosure process around the country that have the *potential* to be added to inventory within the next two-to-six months in the form of an REO, and another 135,000 that are already listed or on the verge of being listed as "must-sells." To put this into perspective, the National Association of Realtors reported existing inventory of 3.55 million in January, implying that total inventory may be 20% understated when taking foreclosures into account. In *Exhibit 37*, we provide current existing inventory trends for the top 51 markets around the country, as continued increases in inventories (either in the form of foreclosures or otherwise) will prolong any potential market recovery. As of the end of February, listings were up 29% from the prior year, in aggregate, across these major markets.

Recall from our January 2007 report "*The Zelman Buzz: Vacancy Sales Loom Large*" that REOs are an example of vacant homes for sale. These homes do not have sellers that are intending on trading into another home, and thus do not create the typical ripple effect of sales down the housing market food chain. As delinquency rates continue to rise (specifically in the subprime and Alt-A markets), this data foretells a continued rise in foreclosures, which we believe will add an additional headwind to an already over-supplied market --- leading to further pricing pressure. (See *Exhibit 38*).

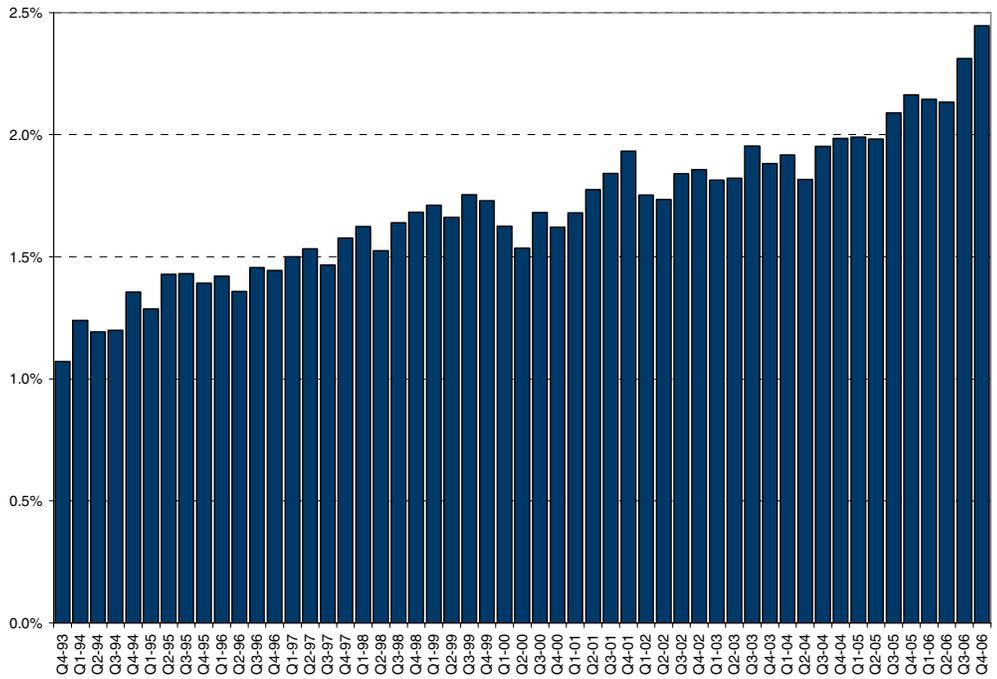
Breaking the foreclosure rates down to the state level, the states with the highest level of foreclosures in 2006 were Colorado (2.7% of households), Nevada (2.1%), Georgia (2.0%) and Michigan (1.4%). Not surprisingly, all of these states have seen significant pricing pressure in the past year or more. (See *Exhibit 39*).

**Exhibit 37: Existing Inventory Changes by Market, February 2007**

| Market                | Data As of February |                    |                  |                       |
|-----------------------|---------------------|--------------------|------------------|-----------------------|
|                       | One-Month Change    | Three-Month Change | Six-Month Change | Year-over-Year Change |
| Boise                 | 2%                  | -5%                | 8%               | 147%                  |
| Albuquerque           | 3%                  | -4%                | 5%               | 100%                  |
| New Orleans           | 2%                  | -1%                | 10%              | 86%                   |
| Jacksonville          | 4%                  | 3%                 | 12%              | 80%                   |
| Orlando               | 4%                  | 4%                 | 12%              | 79%                   |
| Portland              | 1%                  | -10%               | -1%              | 77%                   |
| Tampa                 | 3%                  | 5%                 | 34%              | 67%                   |
| Miami                 | 1%                  | 5%                 | 14%              | 58%                   |
| Inland Empire         | 6%                  | -2%                | -2%              | 55%                   |
| Phoenix               | 9%                  | 1%                 | 1%               | 51%                   |
| Tucson                | 6%                  | 7%                 | 11%              | 46%                   |
| Orange County         | 6%                  | -8%                | -20%             | 39%                   |
| Las Vegas             | 6%                  | 0%                 | 2%               | 36%                   |
| Salt Lake City        | -1%                 | -6%                | 11%              | 35%                   |
| Baltimore             | -1%                 | -11%               | -12%             | 34%                   |
| San Francisco         | 8%                  | -16%               | -27%             | 33%                   |
| Nashville             | 4%                  | 1%                 | 6%               | 33%                   |
| Newark                | 1%                  | -10%               | -12%             | 32%                   |
| Los Angeles           | 2%                  | -16%               | -19%             | 30%                   |
| Memphis               | 3%                  | 0%                 | 5%               | 29%                   |
| San Antonio           | 5%                  | 3%                 | 13%              | 28%                   |
| Atlanta               | 4%                  | 1%                 | 1%               | 26%                   |
| Chicago               | 6%                  | -2%                | -7%              | 26%                   |
| Washington D.C.       | 1%                  | -15%               | -28%             | 25%                   |
| Reno                  | 4%                  | -10%               | -25%             | 25%                   |
| Fort Myers            | 3%                  | 8%                 | 18%              | 25%                   |
| Seattle               | 5%                  | -10%               | -6%              | 25%                   |
| St. Louis             | 5%                  | -7%                | -8%              | 22%                   |
| Milwaukee             | 3%                  | -6%                | -9%              | 22%                   |
| Sacramento            | 5%                  | -12%               | -26%             | 21%                   |
| Philadelphia          | 0%                  | -11%               | -9%              | 21%                   |
| Cleveland             | 2%                  | -5%                | -9%              | 20%                   |
| Detroit               | 1%                  | -5%                | -9%              | 20%                   |
| Minneapolis           | 6%                  | -7%                | -16%             | 20%                   |
| San Jose              | 7%                  | -16%               | -27%             | 20%                   |
| Oklahoma City         | -2%                 | -11%               | -7%              | 15%                   |
| Louisville            | 0%                  | -7%                | -8%              | 15%                   |
| Cincinnati            | -1%                 | -9%                | -11%             | 14%                   |
| Omaha                 | 1%                  | -5%                | -7%              | 14%                   |
| Houston               | 4%                  | -2%                | -3%              | 10%                   |
| Raleigh               | 2%                  | -1%                | 2%               | 10%                   |
| Columbus              | 2%                  | -8%                | -17%             | 10%                   |
| Indianapolis          | 1%                  | -4%                | -11%             | 8%                    |
| Dallas                | 2%                  | -4%                | -8%              | 7%                    |
| Kansas City           | 0%                  | -7%                | -11%             | 7%                    |
| Boston                | 1%                  | -16%               | -25%             | 4%                    |
| Honolulu              | 2%                  | -11%               | -12%             | 3%                    |
| San Diego             | 4%                  | -14%               | -26%             | 3%                    |
| Denver                | -7%                 | -14%               | -23%             | 3%                    |
| Austin                | 7%                  | -6%                | -14%             | -14%                  |
| <b>Top 51 Markets</b> | <b>3%</b>           | <b>-4%</b>         | <b>-5%</b>       | <b>29%</b>            |

Source: Local MLS Listings, NAR, Credit Suisse Analysis

**Exhibit 38: US Vacant Single Family Units For Sale and Rent Relative to Total Stock**

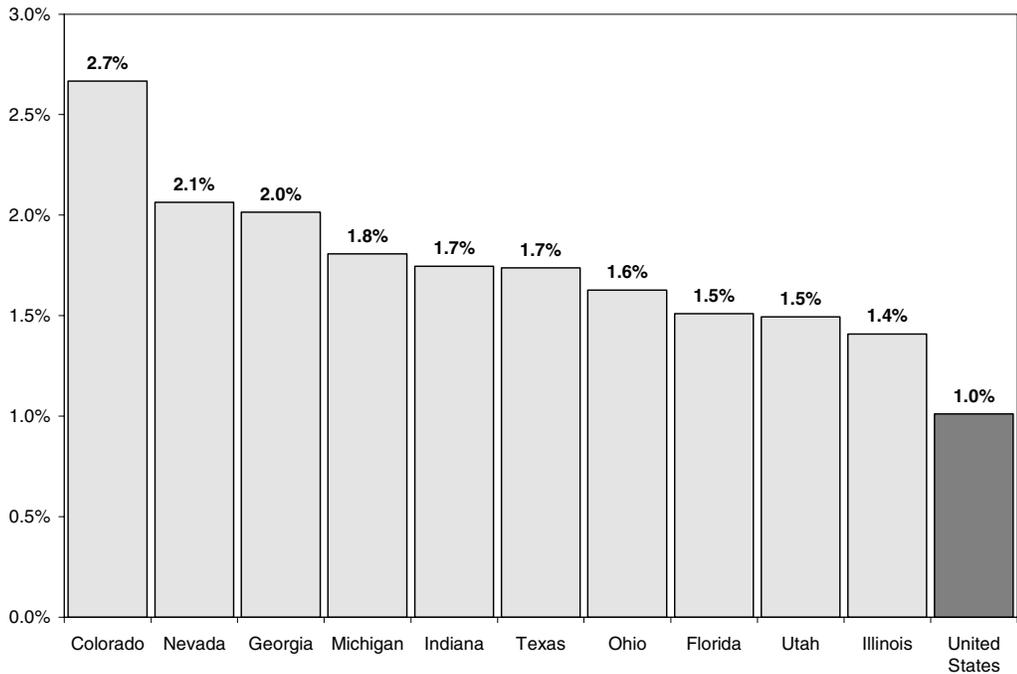


The proportion of single family vacant homes for sale or rent relative to total housing stock is at the highest level since at least 1993 (as far back as our data series goes). The recent surge in vacant units for sale, as the capitulation by distressed sellers accelerates, may provide a persistent headwind to the recovery.

Note: Vacant year-round units for sale or rent divided by total housing stock. We believe the single-family component of vacant units for rent should be included, as (1) investors likely attempt to rent before being forced to sell, and (2) rental units also serve as competition to existing and new home sellers.

Source: Census Bureau, Credit Suisse Analysis

**Exhibit 39: Top Ten Highest Foreclosure Rates by State, 2006**



Note: Foreclosure rate are defined as number of foreclosures divided by total households.

Source: RealtyTrac.

## Rising Delinquencies Paint an Ugly Picture

Given the easing underwriting standards seen throughout the subprime and Alt-A markets in recent years (i.e. lower documentation requirements, less money down, proliferation of exotics), it should not be overly surprising to see escalating delinquency rates on these products now that home price appreciation has dissipated across most of the country. While we will defer any future performance outlook of these loans to credit analysts, we do not envision any immediate recovery given the poor underwriting in recent years, and persistent pressure on home prices due to aggressive builder incentives, rising resale inventories and escalating foreclosures.

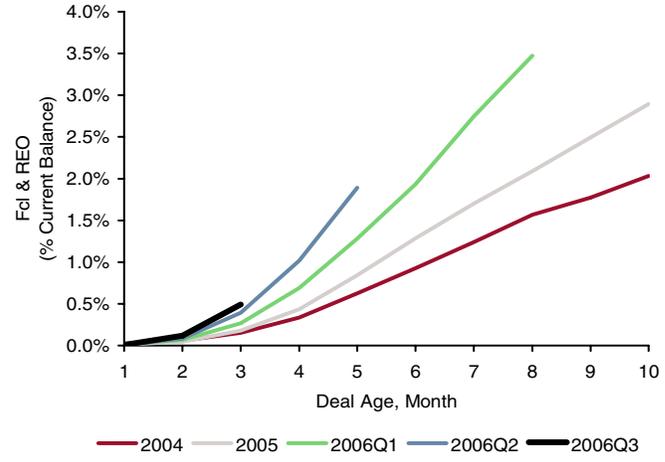
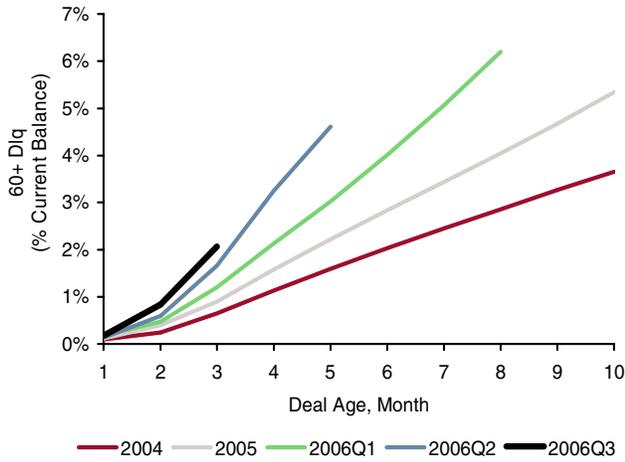
Based on our conversations with contacts in the mortgage arena, much of the (relatively) strong performance of subprime mortgages in recent years has primarily been due to the record home price gains enjoyed throughout much of the country. Homebuyers that put little to no money down suddenly found themselves with 10-20% embedded equity in their homes (at a minimum!). Likewise, subprime borrowers who suddenly faced payment shock from an ARM reset had the option to sell their home for a nice gain, refinance into another subprime ARM with a teaser rate, or in some cases into a prime mortgage if their credit score had improved.

Lenders continued to underwrite these risky loans at record volumes throughout 2005 and 2006 based on performance models using the OFHEO Home Price Index as the primary pricing input used to predict future performance. As we cautioned in our September 2006 report "*Data Masks Grim Reality*", we were extremely concerned with the market's widespread use of the OFHEO index to gauge current market conditions given the extreme lagging nature of the data and several other factors which cause the data to stray from reality (i.e. refinancing bias). As public and private builders began reporting price cuts and incentives in the double digits, the OFHEO index continues to indicate that prices have yet to decline, on average, nationwide. Therefore, while the rise in delinquencies may have come as a surprise to the models, they should not have caught too many market observers off-guard.

Suddenly, homebuyers that were falling behind on payments found themselves with no home equity to fall back on, and were unable to sell their home given the glut of inventory on the market. For some, refinancing options disappeared as the borrower was unable to get an appraisal at the original purchase price of the home. As shown in Exhibit 40 and Exhibit 41, subprime 60+ day delinquencies and foreclosure rates for 2006 vintages are running more than 3 times the levels from 2004 vintages given the sharp downturn in home prices and underwriting standards that continued to ease through much of the year. We point out that these escalated delinquency rates on 2006 vintage loans are not being driven by the payment shock issue which is at the forefront of legislative and regulator debate, as rate reset has not yet occurred on these loans. As shown in Exhibit 42, roughly \$300 billion of securitized subprime mortgages (36% of outstanding subprime MBS) are set to reset in 2007 alone, with even more occurring in the non-securitized space. This, in our opinion, is the next shoe to fall and will likely contribute to additional delinquencies, foreclosures, inventory and additional pricing pressure.

While the market has been largely fixated on the deteriorating credit performance in the subprime market, we note that delinquency rates are trending well above historic levels throughout the Alt-A market, and even on 2006 vintage prime ARM products. As shown in Exhibit 43 through Exhibit 46, recent Alt-A credit has shown significant deterioration relative to prior vintages. For example, 90+ day delinquency, foreclosure and REO rates on 2006 vintage Alt-A ARMs are running 3 to 4 times above the levels from 2003 and 2004 vintages. We remain particularly concerned with this segment given the homebuilders' reliance on these mortgage products, especially in some of the most profitable markets around the country (i.e. California, Nevada, Florida, Metro D.C.).

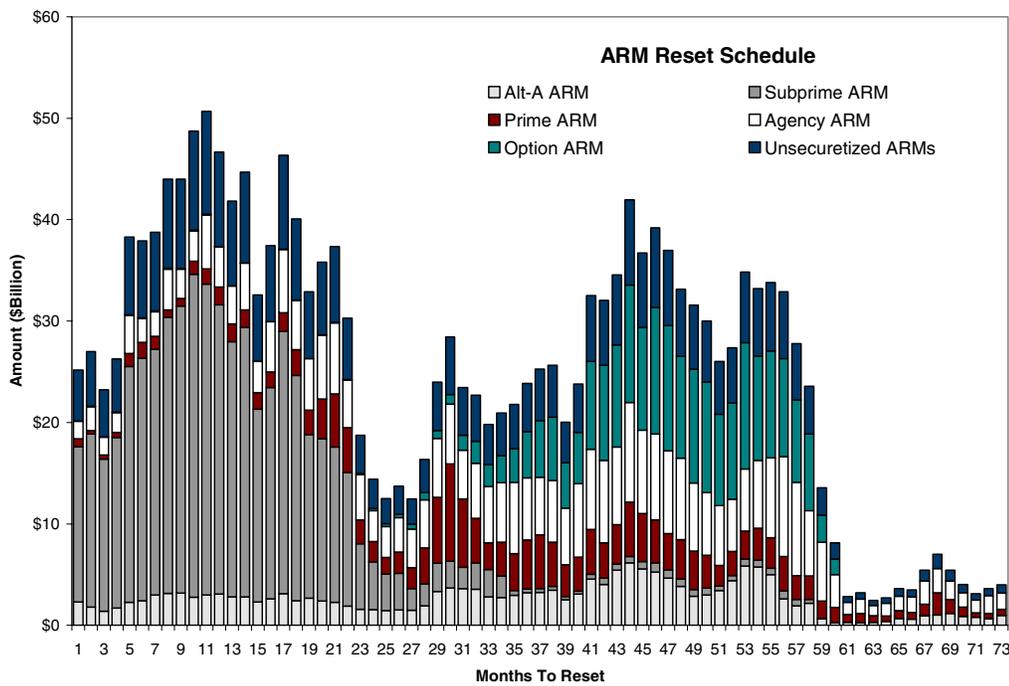
**Exhibit 40: Subprime 60+ day delinquency rate by vintage**      **Exhibit 41: Subprime Foreclosure and REO rate by vintage**



Source: Credit Suisse, Intex

Source: Credit Suisse, Intex

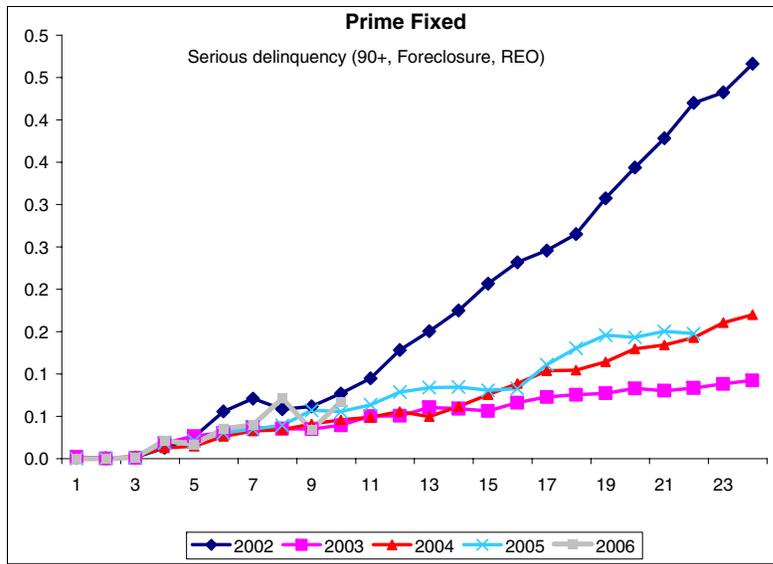
**Exhibit 42: Adjustable Rate Mortgage Reset Schedule**



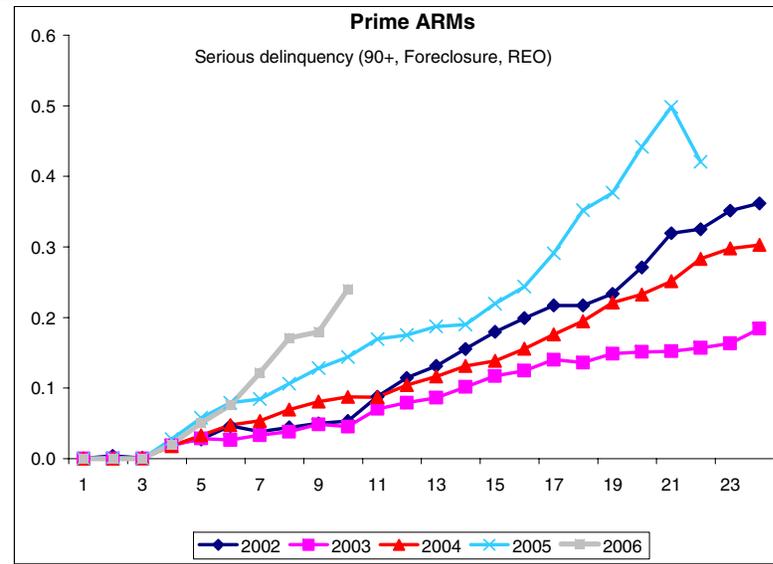
Note: Data as of January 2007.

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

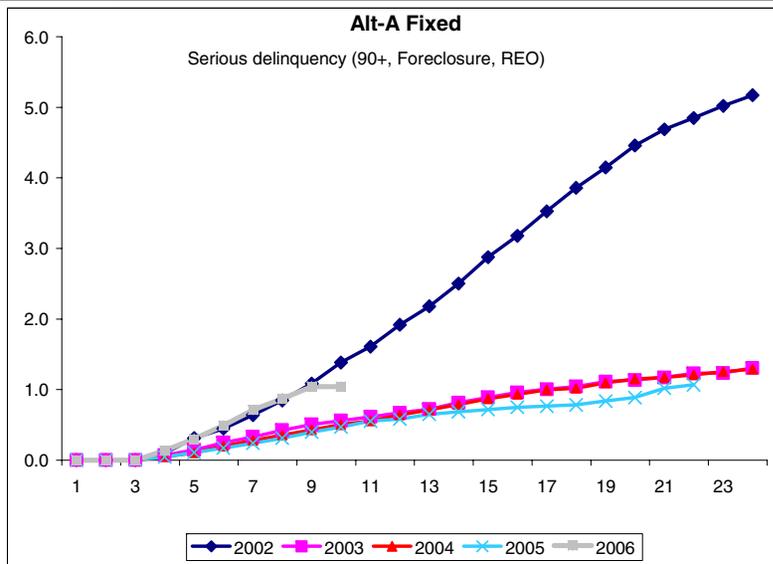
**Exhibit 43: Credit performance on 2006 Prime fixed-rate MBS is in-line with prior vintages**



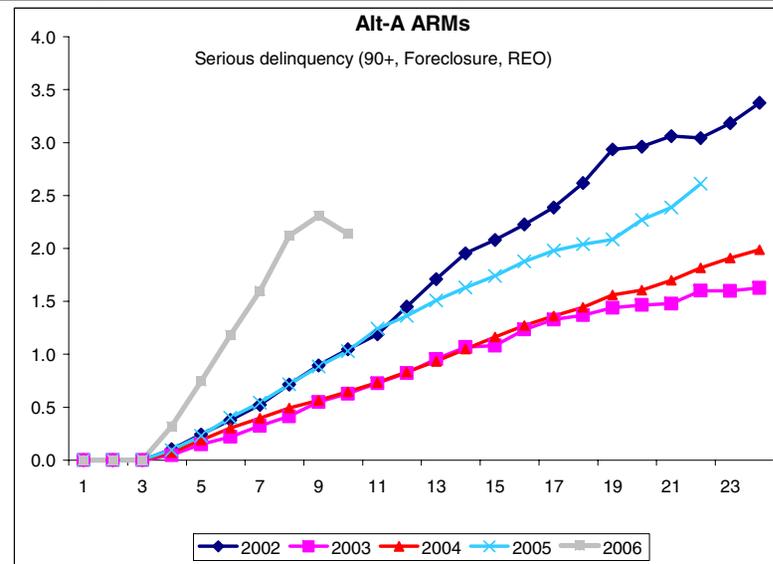
**Exhibit 44: 2006 Prime ARM's are beginning to display signs of weakness as well**



**Exhibit 45: 2006 Alt-A fixed rate loans show credit deterioration compared to prior vintages**



**Exhibit 46: Alt-A ARM (excluding Option ARM's) delinquency rates are significantly elevated relative to prior vintages**



Source: Credit Suisse U.S. Mortgage Strategy, Loan Performance

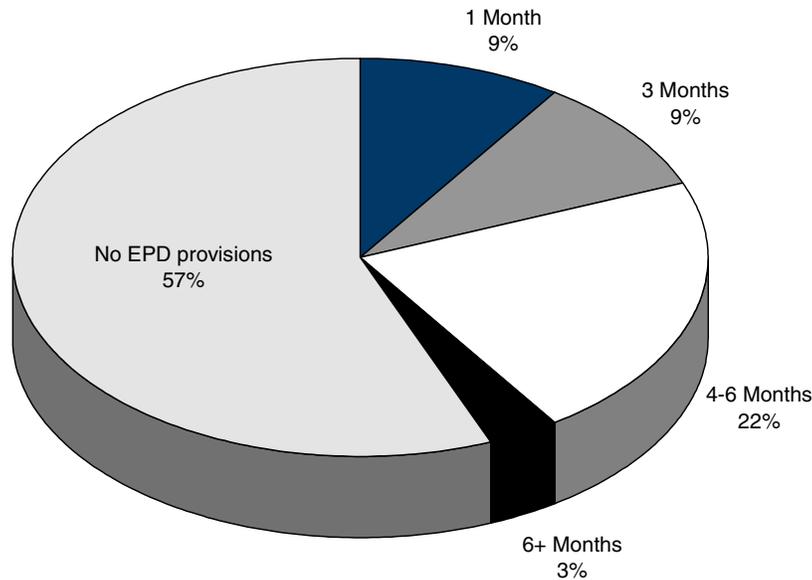
**Early Payment Defaults and Appraisals**

Two subjects that have not garnered a significant amount of attention from the investment community are early payment default (EPD) exposure for the homebuilders and recent appraisal issues in the mortgage market. While these topics have not hit the “mainstream” yet, we are hearing increasing anecdotes of late from our industry contacts on both fronts, and are concerned that these issues may escalate in the coming months.

An early payment default for a homebuilder occurs when a loan originated by the builder’s mortgage subsidiary defaults within a pre-determined timeframe, and the builder is forced to repurchase the loan from the secondary market investor that it originally sold it to. This is essentially creating an REO, with the home ending back on the builder’s balance sheet.

EPD provisions had typically been included by loan originators in order to generate a greater profit on the loan sale, as they provide the investor with some level of insurance in case of an early default. Recently many builders have attempted to remove all EPD provisions from their loan sales with varying success. Unfortunately, public builders provide extremely limited visibility into their mortgage operations, and therefore we do not know for certain where the risk lies. However, in an attempt to gauge the potential impact from EPDs, we surveyed our private homebuilder contacts to see how prevalent EPDs are in their business. As shown Exhibit 47, 43% of builders in our survey responded that they have EPD provisions attached to their mortgages, with the timeframe that they would be forced to repurchase a defaulted loan ranging anywhere from one month to more than six months. Of those respondents that do have EPDs, only 19% have had to repurchase any loans thus far, and most reported that the impact has been minimal to-date (See Exhibit 48). Still, if credit conditions continue to deteriorate, we believe this could become an issue as builders are forced to take REOs on to the balance sheet.

**Exhibit 47: Prevalence of Early Payment Default Provisions Varies Across Builders**

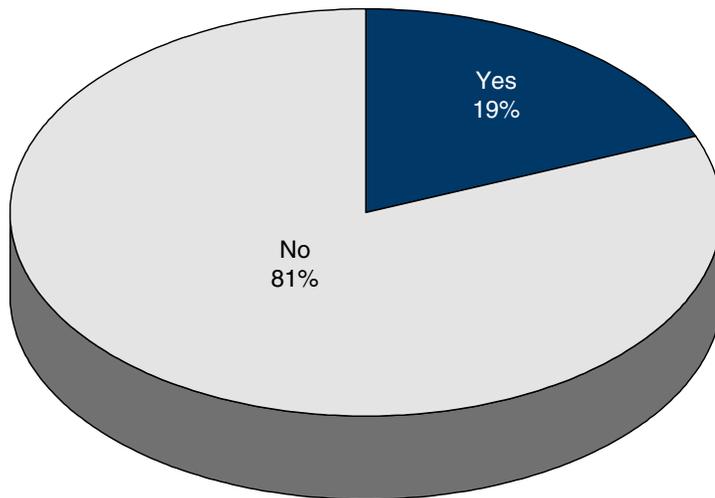


Source: Credit Suisse analysis.

**Exhibit 48: Most builders have not had to repurchase loans yet**

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Have you had to repurchase any loans resulting from early payment defaults?



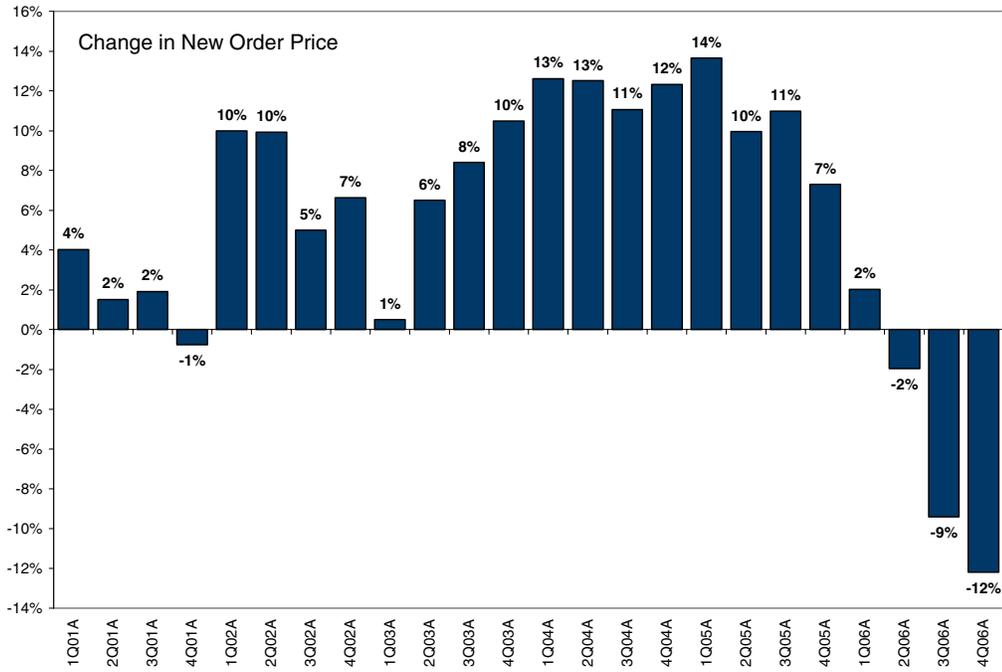
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Source: Credit Suisse analysis.

Another major issue that our contacts are extremely concerned with is the tightening of appraisals. As lenders are getting clobbered by bad loans made on properties with inflated appraisal values, many are finally pulling the reins on some of the lax appraisal methods used in recent years (some have gone as far as calling it fraud in extreme cases). The effects of the tightening are being felt all the way down the housing food chain. Several of our builder contacts have reported increasing instances of appraisals coming in below the price that the home was sold for a few months earlier, which is causing builders to lower the price to the appraised value. In some cases, appraisals that were done thirty days before closing are coming back to the table just days before closing due to falling home prices. On the existing side, many builders have reported buyers in backlog that have had to cancel because when their existing home was appraised, the appraisal value came in below their sales price and outstanding loan value. While most of the focus on lending tightening has been on the actual mortgage products and lending criteria, we believe that this headwind may prove to have a significant impact on the overall housing market by forcing the next drop in home prices, as reluctant home sellers finally face the reality that their home is not worth what it was two years ago.

Thus far, the group has recognized \$3.9 billion of our estimated \$10.5 billion of impairments expected via writedowns and option forfeitures with new order home prices falling 12% in 4Q06 from a 4Q05 peak. Our estimated writedown analysis was predicated on new home values falling back to 2003 levels, which would be a further 5.5% reduction from current levels. Given the incremental headwinds of reduced demand from liquidity tightening, and additional supply coming to the market in the form of REOs, buyers falling out of backlog and appraisal tightening, we remain confident in our initial estimates and would not be surprised to see prices come under even greater pressure than originally anticipated, specifically in the hotbed markets which account for the lion share of builder profits. (See Exhibit 49).

**Exhibit 49: Public Builder Change in New Order Price, 2001-2006**



Source: Company Data, Credit Suisse analysis.

# Recent Events May Force Regulators' Hand

Since the start of the year in particular, there has been a well documented surge in negative and disturbing news flow on the mortgage front, most notably in the subprime space. As shown in the [Appendix](#), the major news events that we managed to capture (and our list does little justice to the magnitude of related news) would prove startling to anyone who may have left the country or been under a rock for the last few months.

The devastation in the subprime space (and the ripple effect which is impacting Alt-A to a lesser degree) has not discriminated between small or large players, as even New Century and Fremont (the number three and seven ranked subprime originators) appear on the brink of bankruptcy and signs of disease have tainted many other top 25 ranked lenders, with bankruptcies and fire-sales. There have been numerous filing delays, federal probes, profit warnings, class action lawsuits, downsizings, and even suspect interventions as is the case with Citigroup's recent rescue of Ameriquest. As the secondary market retreats from the market for risky loans, originators, big and small, have significantly tightened standards or have exited the business of lending to risky borrowers all together.

We are now witness to a major liquidity event that optimists hope will stay contained within this small piece of the market. However, in such times as these, when people search for answers or someone to blame, it is not uncommon for the regulatory and legislative bodies to regulate and potentially over-regulate to right the wrong. As we will talk to in greater detail below, this appears to be the case now, from the state to the federal level.

## Regulators and Legislators to the Rescue

As a response to defaults rising and with new leadership in Congress, in December 2006, the Senate Banking Committee Chairman, Senator Chris Dodd and five other committee members increased pressure on federal banking regulators (including the Fed), saying in a letter that they need to take action and tighten underwriting of certain subprime products (notably 2/28 ARMs). Also, one of the primary focuses is to implement oversight to target individual brokers, requiring them to provide more disclosure, obtain licensing and establish liability for brokers that violate predatory lending laws. By mid-February, Senator Dodd made it known that he was dissatisfied with the regulators' response to the letter. Likely not coincidentally, in late February, Freddie Mac made it known that it will cease buying certain subprime mortgages, limiting its purchase to loans that qualify borrowers at the fully indexed, fully amortized rate and will limit the use of low-doc subprime loans (most importantly, this will impact 2/28 loans, which represented nearly 80% of subprime originations in 2006). This increased public scrutiny from legislators also spurred the regulators into issuing draft guidelines focusing on subprime mortgages in early March. Although we agree that more restrictive and uniform legislation will likely be a positive in the longer term, the immediate implications of more regulation, which will potentially extend beyond specific subprime products, may exacerbate an already challenged situation, restricting credit flow further.

## State Legislators Also Step Up Scrutiny...

On May 24, 2006, the state of Ohio passed new legislation (Ohio Senate Bill 185), addressing reports of alleged "predatory" lending practices throughout the state of Ohio. The new legislation provides the Ohio Attorney General direct enforcement and authority over certain lending activities. It predominantly applies to "nonbank mortgage lenders" and mortgage brokers, exempting state and federally-chartered depository institutions. It is unclear how it applies to covered loan activity. Essentially, if there is any violation found (of 16 types), the consumer can rescind the loan or recover damages. The new law was effective January 1, 2007. See the analysis of the bill here: ([Brinker SB 185 Overview](#))

In response, on Feb 26, 2007, Wells Fargo sent a flyer to correspondent clients that stated income, no ratio and no doc loans will be discontinued in Ohio. The press release read: "Recent actions by investors in mortgage-backed securities in response to the recently enacted Ohio Senate Bill 185 suggests that certain mortgage products originated in Ohio by non-bank entities may not be acceptable for inclusion in securitization pools. In response to this liquidity concern...WFC will no longer accept reduced documentation loans secured by properties located in Ohio...."

Our public policy correspondent in Washington D.C. expects that these types of initiatives may spread to other states as well as the federal level. Particularly in the next 18 months, our contact believes that there is a greater probability of increased legislative, regulatory and headline risk associated with new, tougher regulations and possibly even federal legislation.

### **So What's In Place Now?**

In 1994, the Home Ownership Equity Protection Act (HOEPA) was put in place in response to "anecdotal evidence of predatory lending practices" in the home equity loan arena, applicable to all federally regulated bank/thrift institutions. HOEPA is the federal standard on predatory lending (part of RESPA and Truth in Lending act) - It essentially sets a threshold for high cost loans (sets limit on terms and conditions), so that there aren't "predatory" rates. In 2001, the Federal Reserve issued Reg Z, clarifying coverage under HOEPA and lowering the rate-based trigger by 2 points for first-lien loans (to 8 points above prime). HOEPA prohibits extension of credit to consumers that don't account for a consumer's ability to repay and requires creditors to verify income for HOEPA-covered loans.

However, most states have enacted their own predatory lending laws because the federal standard on predatory lending (HOEPA) is not pre-emptive (doesn't stop states from issuing their own laws) and is essentially inadequate at levels below or beyond its regulated threshold. After HOEPA was enacted, lenders essentially provided loans that fell below the HOEPA cap (where HOEPA doesn't apply) - If a lender provided loans under this threshold, it didn't have to worry about potential HOEPA penalties. In response, states made laws that sought to capture a broader section of the market. HOEPA only covers closed end home equity loans (refinance and second mortgages), so some of the states' laws included coverage for additional loan types including lines of credit and purchase mortgages while also lowering the "trigger" rate on which its rules would apply.

Since North Carolina enacted the first state predatory lending law in 1999, there are close to 39 states that have their own laws according to our public policy correspondent, not including laws enacted by local jurisdictions. The laws by state vary, but as is the case in Ohio, some of these state laws resulted in at least temporary reduction in credit flow.

### **An Example of State Law and the Implications on Liquidity**

In 1999, North Carolina effectively did a HOEPA-template bill with a lower standard (i.e. HOEPA covered loans at 10+ prime at the time, so North Carolina's law covered loans at 9+ prime). North Carolina passed the bill, and the secondary market retreated - Only when it became clear regarding the assignment of liability did participants ease back into the market. Assignee liability effectively assigns the loan liability to the owner of the paper, encompassing the secondary market. So, even if the secondary market participant pools loans and sells the loans, it is still responsible for any potential liability associated with the high cost loan. Only after North Carolina clarified the risks (i.e. the market understood at what point it would assume liability for the loan), did the secondary market eventually step back in for product that fell below the state's new threshold.

In addition to North Carolina, state laws that were particularly restrictive, impacting the flow of credit, include Georgia, Florida, and Ohio (source: "States Fight Predatory Lending in Different Ways" Federal Reserve Bank of St. Louis. January 2006. ([St. Louis Fed Study](#))). We note, however, that the response to state laws on predatory lending varies significantly

given the differences in the laws. However, given the fallout in the housing market and the increased incidence of fraudulent activity in the mortgage lending environment in the past few years, we expect there is an increased likelihood for a greater response on the regulatory front, which may prove an incremental headwind to credit availability.

### **Why Isn't the Current System Working?**

The problem with the current system centers on the definition (or lack thereof) of predatory lending. Virtually every state has its own guideline, but no one has ever really tried to define it. The closest any state has come would be New Jersey, which makes a distinction between high cost and subprime loans (a common misperception is that all sub-prime loans are "high-cost" and that all high cost loans have predatory features, which is not the case).

Essentially, the regulators (both federal and state) do not know how to (or don't necessarily want to) target the definition objectively, which is the central flaw to the current system - it's too subjective. In their infancy, the laws basically required that loans had to ensure a borrower received "net tangible benefit" on a product, but no one explicitly defined net tangible benefit. For example, if a borrower gets into a home, is that a net tangible benefit? The lender wouldn't find out until the borrower sued (may sue because it can't meet its monthly obligations).

Net tangible benefit eventually evolved into "suitable investment", in that the broker has to certify that the loan applies to all state and federal guidelines. But again, none of the suitability standards lays out the definition of what it means specifically (keep in mind the secondary market is also responsible for suitability). Also, there is no law requiring borrowers to sign a suitability disclosure. As such, there is no document that absolves the lender of potential liability. So, the only way lenders find out if a loan is suitable or not is when it is sued (the definition is so loose, only the courts can decide).

It is no accident that many of the states' laws cater to court adjudication as opposed to solving the problem at the regulatory level. Given the politically charged nature of housing, legislators are naturally less inclined to draw a more objective definition of predatory lending and more inclined to allow the courts to decide. If you're a politician, how would you look if you were the one that drew up the law that basically precluded some constituents from getting into a home? As a result, the current system makes it easier for people (individuals or class action) to bring lawsuits. The only problem is, if a class action suit isn't possible, how would one that can not pay the mortgage find enough change in the couch to bring a lawsuit against a financial institution? Moreover, individual brokers that did participate in predatory practices would migrate to locations where the laws were more lax - which proponents for a more uniform, federal standard have pointed to. The subjective nature of the definition has clearly been a weakness under the federal/state regulation.

### **So What's Now Happening at the State Level?**

With the explosion in exotic mortgage products and the subsequent shake-out, we're now seeing some changes to the laws such as the Ohio Senate bill. Our correspondent expects that states will likely take varying approaches in the coming months to tighten up their belts on high cost, predatory products. For instance, in states where markets are under intense pressure in the wake of investors exiting the market (Florida and Nevada), this is particularly pertinent. The laws will likely give more "teeth" to the attorney general or state bank regulating agencies in states where this system is not already in place, which will provide potential recourse at a lower level and provide for better oversight. In states where older laws are still in place (Colorado), we'll also likely see increased licensing and disclosure requirements. Specifically, brokers must meet licensing requirements (initially under state laws there was little-to-no broker accountability) and face increased disclosure requirements (i.e. points and fees have to be clear).

Also, with the recent bank regulator draft guidelines proposed on March 2nd, state regulators have effectively been provided with a better roadmap for defining "predatory lending" by focusing on specific products. It provided all the buzz words and terms (such as "2/28" ARM loans and "low/no doc") that have been discussed at the federal and local level. The bank regulating agencies believe that these are the primary concerns that need to be addressed, allowing state and federal legislators to decide, ultimately, how to clean up the mess. Although it is undoubtedly a politically difficult subject to tackle, the bank regulators have opened the door for legislators to begin objectively defining predatory lending practices (see the draft guidelines here [Regulatory Guidelines](#)).

Already, we have witnessed predatory lending legislation from several states that have been proposed thus far in 2007. The following link includes the proposed bills, some of which pertain to the subject at hand specifically ([Proposed Legislation](#)). States such as Kentucky (amendment that provides parameters on prepayment penalties), Minnesota (legislation that would regulate predatory lending practices and provide remedies/criminal penalties), Pennsylvania (provides for licensee limitations on covered loan terms and practices and for civil liability) and New Jersey (amends existing predatory lending law) are included among a host of others.

### **And What About the Federal Level?**

Predatory lending legislation will be among the top priorities for the House Financial Services and Senate Banking committees. Our correspondent tells us that in the past four years in particular, there has been a major push at the federal level to replace HOEPA - to correct flaws at HOEPA, implementing a law that would pre-empt states and provide a uniform blanket of predatory lending standards. Since 2005, there's also been increased focus on Alt-A product given its significant growth and penetration of the market. Currently, HOEPA represents the floor from a regulatory standpoint, but the thought would be to change it to being a ceiling, so to speak. Proponents of a more comprehensive model argue that this should be done given the significant variation in lending laws by state and the lack of objective definitions pertaining to predatory lending practices.

That said, an overly restrictive federal law could prove particularly detrimental to the availability of credit. Also, local regulators want to keep regulatory efforts closer to the state level because, at the end of the day, it's a local issue that can more effectively be enforced locally. At this point, the solution would be to draw up a federal standard that provides enforceability to the states. No doubt, this would be a difficult task. No matter what course is ultimately taken or whether or not Congress succeeds in setting a new standard, we expect that the regulatory environment will present tougher standards presenting an incremental headwind to the availability of credit, which will be another factor for investors to consider in the coming months/years.

# Tying it All Together

## New Home Market Impact

The obvious corollary to our analysis of the risk underlying the mortgage market is its pending impact on new home sales and homebuilder fundamentals. Two anecdotes would be recent statements from New Century and Novastar that if new guidelines had been in place during 2006, 16% and 25% of production would not have been approved, respectively. Similarly, according to our Private Builder Survey, an average of 27% and a median of 15% of homebuyers utilized loans with layered risks of interest-only, no documentation and high CLTVs. Utilizing this type of methodology, it is possible to estimate how much of subprime and Alt-A loans would not qualify under tighter standards today; however, we warn that this piece of the puzzle only explains part of the overall picture.

For example, tightening on the most aggressive of products with layered risk would likely still filter through the credit spectrum, as capital providers are more gun-shy at the moment given extremely poor performance on these vintages thus far. In addition, with financing pulling back at the entry-level, we believe it is only a matter of time until the impact is felt in other price points. As we have stated before, there may be short term fluctuations in price-point demand, but given the contingent nature of the housing market (a move-up buyer must sell their existing home to an entry-level buyer), the various segments will move in tandem longer-term. Therefore, if 15-25% of entry-level buyers that would have used subprime financing can no longer obtain funding, does this mean that 15-25% of potential move-up buyers can no longer obtain a buyer for their existing home, and so on?

Analyzed another way, we take each piece of the general mortgage market and use conversations with industry contacts, recent tightening announced by lenders and expected legislative and regulatory actions to estimate the proportion of each segment that could be eliminated by tighter lending standards. In our base case, we assume that 50% of the subprime market is at risk, taking originations back to 2003 levels, which would impact total purchase volume by 10%. Similarly, we estimate that 25% of Alt-A and 10% of prime loans would not be approved under tighter restrictions for various combinations of investor purchases, piggybacks, low down payments and low documentation. In aggregate, the total impact to originations would be 21% (See Exhibit 50).

### Exhibit 50: Impact of Tightening Lending Standards

| Product            | Share of Purchase Market | Elimination Due to Standards | Impact on Total Market |
|--------------------|--------------------------|------------------------------|------------------------|
| Subprime           | 20%                      | 50%                          | 10%                    |
| Alt-A              | 20%                      | 25%                          | 5%                     |
| Prime & Government | 60%                      | 10%                          | 6%                     |
| Total              | 100%                     |                              | 21%                    |

Source: Credit Suisse analysis.

As highlighted in our *"Investors Gone Wild"* report in July 2005, our concerns at the time hinged on unsustainable speculation in the real estate market spurred further by excessive liquidity in the mortgage world. In a simplistic view, the removal of these two dynamics would return the market to a more "normal" environment. Related to speculation, investors' share of the market climbed to roughly 18% in 2005 and 2006 from an average of 7% from 1998-2001, implying that a return to the mean would remove 11% of housing demand. On top of that, we expect that mortgage tightening could eliminate approximately 15-25% of buyers, implying a 25-35% reduction in peak housing production. This would likely be exacerbated by declining consumer confidence, investor demand falling below historical norms and the risk of a softening economy (all of which seem present today), suggesting

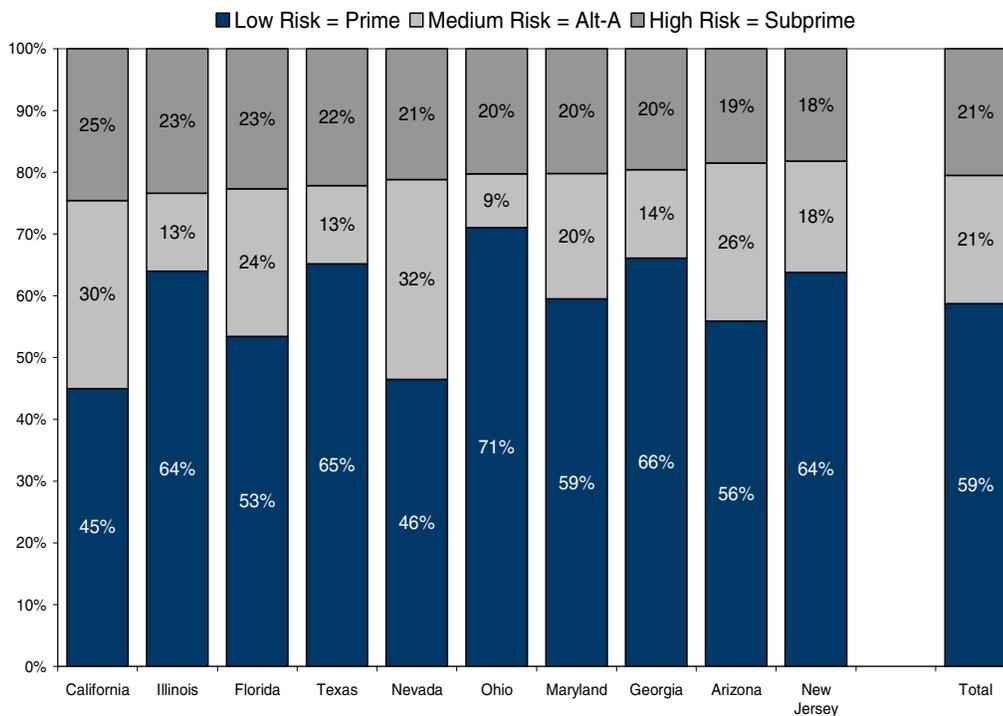
at least a further 10% drop. Aggregating the various impacts would result in a 35-45% drop-off in new starts from the peak of 2.1 million homes to roughly 1.2-1.4 million, as compared to the 16% decrease thus far on a trailing twelve month basis. For comparison, starts during the last three downturns ending in 1991 (down 34%), 1982 (down 32%) and 1980 (down 37%) fell by an average of 34%.

We note that our new forecast of a 35-45% peak-to-trough decline in housing starts compares to our initial “back-of-the-envelope” estimate of 25% as discussed in our September 2006 report titled “Data Masks Grim Reality.” Given our forecast reduction, we are lowering our 2007 earnings estimates across our space. Please see our note also published today called “A Different Kind of Spring Selling Season: Reducing 2007 Estimates” for more details.

**Market and Builder Risk**

To summarize our views down to the public builders, we compared the exposure to subprime, Alt-A and prime mortgages by state to that of the builders' revenue breakdown. In our analysis, we deemed subprime mortgage to be of greatest risk, followed by the Alt-A product as medium risk and grouped all other mortgages (jumbo, prime, government) as low risk. Exhibit 51 outlines this comparison for states accounting for at least 1% of revenues in the group with California, Illinois, Florida, Texas and Nevada categorized as the highest risk.

**Exhibit 51: Risk Summary by State**



Source: Company Data, Credit Suisse analysis.

In addition to having geographic risk to frothy mortgage markets, builders that derive a higher percentage of units from the entry-level are likely to feel the tightening more immediately. We segment out the builders most exposed to the entry-level via industry statistics from Professional Builder of price point, in addition to the average selling price given our view that certain builders have different classifications of an “entry-level” home. For example, KBH considers a first-time homebuyer over the age of 55 as an active adult buyer even if the community is not age restricted, which is the classic definition of active adult. CTX's mix of 55% entry-level versus the group at 33% also appears odd, when

considering that CTX is nationally diversified and has an average price only 4% below the group. Our point being, tread carefully with gauging risk of first-time demand based solely on the description provided by the companies.

Exhibit 52 displays the weighted average revenue distribution by builder for our three risk buckets, in addition to providing price-point characteristics. Combining the two metrics highlights those builders that we believe would have the most risk to tightening credit. For example, in 2005, SPF and KBH generated roughly 50% and 47% of revenues from high or medium risk markets while also having above average exposure to the entry-level. On the other hand, NVR, PHM, TOL and WCI either have below average exposure to the first-time buyer, or are less prevalent in high risk markets. However, we caution that while we believe this table provides an easy framework to measure relative risk, we reiterate our comment that a divergence in price points is only a temporary phenomenon.

**Exhibit 52: Risk Summary by Builder**

| Revenue Distribution |          |       |       |             | LTM<br>Average<br>Price | Geographic<br>Risk | Price-Point<br>Risk |
|----------------------|----------|-------|-------|-------------|-------------------------|--------------------|---------------------|
| Builder              | Subprime | Alt-A | Prime | Entry-level |                         |                    |                     |
| SPF                  | 23%      | 27%   | 51%   | 43%         | \$373,900               | ✓✓                 | ✓✓                  |
| KBH                  | 22%      | 25%   | 54%   | 40%         | \$277,600               | ✓✓                 | ✓✓                  |
| LEN                  | 22%      | 24%   | 54%   | 40%         | \$315,800               | ✓✓                 | ✓✓                  |
| MDC                  | 20%      | 26%   | 54%   | 25%         | \$360,200               | ✓✓                 | ✓                   |
| DHI                  | 21%      | 23%   | 57%   | 35%         | \$271,800               | ✓                  | ✓✓                  |
| CTX                  | 21%      | 22%   | 58%   | 55%         | \$308,200               | ✓                  | ✓✓                  |
| BZH                  | 20%      | 22%   | 58%   | 25%         | \$287,700               | ✓                  | ✓✓                  |
| HOV                  | 20%      | 23%   | 57%   | 32%         | \$329,100               | ✓                  | ✓                   |
| RYL                  | 21%      | 20%   | 59%   | 33%         | \$295,900               | ✓                  | ✓                   |
| MHO                  | 20%      | 15%   | 65%   | 46%         | \$312,300               |                    | ✓✓                  |
| WCI                  | 21%      | 23%   | 56%   | 0%          | \$677,500               | ✓                  |                     |
| PHM                  | 21%      | 22%   | 57%   | 25%         | \$336,900               | ✓                  |                     |
| TOL                  | 19%      | 22%   | 59%   | 0%          | \$851,000               | ✓                  |                     |
| NVR                  | 16%      | 18%   | 66%   | 30%         | \$399,600               |                    | ✓                   |

|               |     |     |     |     |           |  |  |
|---------------|-----|-----|-----|-----|-----------|--|--|
| <b>Median</b> | 21% | 23% | 57% | 33% | \$322,450 |  |  |
|---------------|-----|-----|-----|-----|-----------|--|--|

|          |                         |
|----------|-------------------------|
| ✓✓       | = High Exposure         |
| ✓        | = Average Exposure      |
| No Check | = Minimal / No Exposure |

Source: Company Data, Credit Suisse analysis.

**Appendix: Recent Events for Top 25 Subprime/Alt-A Lenders**

| Sub-Prime Rank | Top 25 Subprime Originators | % of subprime | Recent News  |
|----------------|-----------------------------|---------------|--|
| 1              | Wells Fargo                 | 13%           | <p><b>Feb 26, 2007:</b> WFC discontinues stated income, no ratio, no doc loans in Ohio due to Ohio Senate Bill 185.</p> <p><b>Feb 21, 2007:</b> WFC cuts 70 jobs in Concord subprime office - cites tightened credit policy.</p> <p><b>Feb 20, 2007:</b> WFC cuts 250 jobs in Fort Mill, S.C. office - cites tightened credit policy regarding subprime loans</p> <p><b>Jan 16, 2007:</b> WFC reports 4Q results.</p> <p><b>May 24, 2006:</b> Ohio passes Senate Bill 185 addressing predatory lending practices - becomes law Jan 2007.</p>   |
| 2              | HSBC Finance                | 8%            | <p><b>Mar 05, 2007:</b> HSBC reports 2006 pre-tax profit of \$22.1 billion (up 5% yoy), but suffered a \$10.6 billion charge for bad loan provisions. Remains confident that problems in US mortgage business will not spread to other areas.</p> <p><b>Feb 22, 2007:</b> HSBC fires head of North American operations</p> <p><b>Feb 07, 2007:</b> HSBC announces bad loan provisions will be 20% higher than original analyst expectations of \$8.8 billion.</p> <p><b>Dec 05, 2006:</b> HSBC said third-quarter top-line growth slowed due to an increase in bad loans in the U.S. and the U.K.</p>  |
| 3              | New Century Financial       | 8%            | <p><b>Mar 08, 2007:</b> NEW halted new loans and lined up almost \$1 billion in new funding to help it stay in business. The company is also no longer originating loans with 100% LTV or second trust deeds.</p> <p><b>Mar 08, 2007:</b> David Einhorn of Greenlight capital (which owns over 6% of NEW), resigns from NEW's board of directors.</p> <p><b>Mar 05, 2007:</b> NEW's fate may depend on Wall Street funding.</p> <p><b>Mar 02, 2007:</b> NEW faces a federal criminal probe and will likely breach a major lending covenant with its financial backers, bringing into question the survival of the second-largest U.S. subprime-mortgage lender. Gives notice that it would miss filing deadline.</p> <p><b>Feb 16, 2007:</b> In recent weeks, with warnings from HSBC and New Century, there is speculation that a major bank is aggressively making margin calls, which could potentially create a "liquidity event" at NEW in particular.</p> <p><b>Feb 09, 2007:</b> Class action lawsuits arise. Also, S&amp;P's Ratings Services downgrades NEW's debt to "BB-" from "BB," pointing to declining earnings and poor credit."</p> <p><b>Feb 07, 2007:</b> NEW announced that it would restate 2006 results given errors discovered in its application of GAAP principles. Also, during 4Q06, there were increased early-payment defaults. It expects to incur impairments as well.</p> <p><b>Jan 17, 2007:</b> Home 123 Corp, a subsidiary of New Century, has closed two dozen offices since December, resulting in 200 job cuts. A spokeswoman said: "This was not immediate reaction to the mortgage market," she said. "It was a strategic move."</p> |
| 4              | Countrywide Financial       | 6%            | <p><b>Mar 06, 2007:</b> 60% of CFC's customers seeking hybrid adjustable-rate mortgages, or ARMs, such as "2-28" loans would fail to qualify under proposed guidelines from bank regulators according to the CFO.</p> <p><b>Mar 02, 2007:</b> Moody's has placed the ratings of Countrywide Financial Corporation (CFC), under review for upgrade.</p> <p><b>Mar 01, 2007:</b> CFC reported that payments are late on nearly 20% of its subprime mortgage loans. Payments were late on 19% of subprime loans versus 15.2% at the end of 2005 and 11.3% at the end of 2004. Prime delinquencies also increased to 2.93% from 1.57% last year.</p> <p><b>Feb 15, 2007:</b> S&amp;P placed CFC's 2006 mortgage-backed bond issue under review for downgrade. This marked the first and only such "review" for Alt-A loans from 2006 based on the poor performance of the underlying loans.</p> <p><b>Feb 09, 2007:</b> CFC reports January operational results. Delinquencies fell to 4.7% (down 31 bps) from December, but were higher than the prior year.</p> <p><b>Jan 31, 2007:</b> BofA CEO casts doubt on the odds of it buying or partnering with Countrywide. "We like the product, but we don't like the business," he said.</p> <p><b>Jan 30, 2007:</b> CFC reports fourth quarter results. Reports \$1.01 per share versus the Street's \$1.04.</p> <p><b>Jan 29, 2007:</b> "Bank of America has discussed an alliance with Countrywide Financial, the largest U.S. mortgage lender, a person with knowledge of the matter said."</p>   |
| 5              | CitiFinancial               | 6%            |  |
| 6              | WMC Mortgage Corp. (GE Sub) | 5%            | <p><b>Mar 09, 2007:</b> General Electric Co.'s U.S. mortgage unit will curtail lending and fire 460 workers, or 20 percent of staff, amid a rise in defaults by people with poor credit. It is adjusting its underwriting criteria.</p>  |

Note: Rankings based on new loan volume in 2006.

Source: Company data, Inside B&C Lending, Credit Suisse analysis.

**Appendix: Recent Events for Top 25 Subprime/Alt-A Lenders**

| Sub-Prime Rank | Top 25 Subprime Originators | % of subprime | Recent News   |
|----------------|-----------------------------|---------------|---|
| 7              | Fremont General Corp.       | 5%            | <p><b>Mar 07, 2007:</b> FMT consents to FDIC cease and desist order.</p> <p><b>Mar 07, 2007:</b> FMT will not fund home loans in process, making it more difficult for borrowers that have contracted a home to close.</p> <p><b>Mar 05, 2007:</b> FMT retains Credit Suisse to assist in the sale of its subprime business.</p> <p><b>Mar 02, 2007:</b> FMT delayed its filing because it could not file "without unreasonable effort or expense"...Fremont intends to exit its subprime lending business. It receives a cease and desist order with the FDIC.</p> <p><b>Mar 01, 2007:</b> "Fitch Ratings yesterday downgraded all debt ratings for FMT and placed both the financial holding company and its investment &amp; loan banking operations (Fremont Investment &amp; Loan, or FIL) on Rating Watch Negative..."</p> <p><b>Feb 27, 2007:</b> FMT will delay its earnings release and will not file its 2006 annual report by the March 1st deadline. There was no reason given for the delay.</p> <p><b>Feb 12, 2007:</b> Fremont (FMT) sends an email saying it will eliminate second lien originations and that it would make cut backs/changes to its AA program.</p>  |
| 8              | Ameriquest Mortgage         | 5%            | <p><b>Mar 07, 2007:</b> GOP pushes for probe of governor of Massachusetts call on behalf of Ameriquest.</p> <p><b>Mar 06, 2007:</b> News report indicates that Massachusetts governor (and former ACC board member) made a <a href="#">Feb 20th</a> call to Citigroup and former US Treasury secretary (Rubin) to intercede on behalf of Ameriquest. Citi "has a host of business interests" in the state.</p> <p><b>Mar 01, 2007:</b> ACC Capital Holdings, parent of Ameriquest, Argent and AMC, said that it has secured additional working capital from Citigroup. Citi also agreed to become its primary warehouse lender...Citi also owns an option to acquire ACH's wholesale mortgage origination and mortgage servicing platforms.</p> <p><b>Feb 2, 2007:</b> "The latest takeover speculation on Ameriquest Mortgage: Citigroup and Morgan Stanley are in talks to acquire the subprime mortgage lender, according to reports this week...Privately held Ameriquest has been a rumored takeover target for years."</p> <p><b>Jan 03, 2007:</b> Ameriquest "shuttered virtually all of its offices and laid off 3,800 employees. Its demise was exacerbated by a \$325 million settlement with 30 states' Attorneys General over deceptive marketing and lending tactics."</p> |
| 9              | Option One                  | 4%            | <p><b>Mar 07, 2007:</b> Option One releases new underwriting guidelines. It will no longer accept any submissions (subprime or Alt-A) with CLTVs above 95%. Maximum LTV is reduced to 90%.</p> <p><b>Jan 10, 2007:</b> Option One has the biggest implication for H&amp;R Block's future according to CEO Mark Ernst. "Ernst said Block has hired Goldman Sachs &amp; Co. to help evaluate alternatives for shedding Option One, including a sale or spin-off."</p> <p><b>Nov 07, 2006:</b> H&amp;R Block announces the possible sale of Option One Mortgage and lowered its fiscal 2007 earnings forecast because of mortgage pricing pressures and fewer-than expected mortgage loan originations.</p>  |
| 10             | First Franklin              | 4%            | <p><b>Sep 5, 2006:</b> Merrill Lynch buys First Franklin Financial from National City for \$1.3 billion.</p>  |
| 11             | Washington Mutual           | 4%            | <p><b>Feb 14, 2007:</b> Washington Mutual lays off another 100 employees of 703 administrative workers at its Stockton center. In a separate article, WaMu shut down 80 branches in late 2006.</p> <p><b>Jan 17, 2007:</b> Reports 4Q core EPS of \$0.77, \$0.11 below consensus. Core results were impacted by significant credit quality deterioration in its home loan, home equity and subprime mortgage portfolios.</p> <p><b>May 2006:</b> WaMu announces that it will withdraw from its traditional Correspondent channel, resulting in 1,400 layoffs.</p>   |
| 12             | Residential Funding         | 3%            |   |
| 13             | Aegis Mortgage              | 3%            | <p><b>Dec 14, 2006:</b> A subsidiary of Aegis Mortgage closes two of its subprime operations centers in Denver and Jacksonville. It will continue to offer a limited subprime product menu through its wholesale branch networks, along with a full range of prime and Alt-A mortgage products.</p> <p><b>Nov 03, 2006:</b> Aegis names Jim Jones its new CEO. Jones "stated that the company's focus will remain on efforts to expand our market share, improve the risk profile of our production, and continually improve the cost efficiency of our operations."</p> <p><b>Nov 01, 2006:</b> Aegis combines the operations of Aegis Funding with those of Aegis Wholesale Corporation.</p>  |
| 14             | American General            | 2%            |   |
| 15             | Accredited Lenders          | 2%            | <p><b>Mar 2, 2007:</b> "Accredited, based in San Diego, delayed its report until March 16 because of 'sizable demands upon the company's management and staff,' including a recent merger that may cause a write-down."</p> <p><b>Feb 14, 2007:</b> Accredited said that it lost \$37.8 million during 4Q06; as a result, net income for the full year fell by nearly 2/3rds...Total portfolio delinquencies at the end of 2006 stood at 8.26 percent, more than triple the delinquency rate of 2.49 percent at the end of 2005 and up from 5.44 percent at the end of the third quarter. It also said it is cutting back on riskier types of mortgages, which will cause a "considerable drop in loan production..."</p>   |
| 16             | BNC Mortgage (Lehman Sub)   | 2%            |   |
| 17             | Chase Home Finance          | 2%            |   |
| 18             | Equifirst                   | 2%            |   |

Note: Rankings based on new loan volume in 2006.

Source: Company data, Inside B&C Lending, Credit Suisse analysis.

**Appendix: Recent Events for Top 25 Subprime/Alt-A Lenders**

| Sub-Prime Rank | Top 25 Subprime Originators | % of subprime | Recent News  |
|----------------|-----------------------------|---------------|--|
| 19             | NovaStar Financial          | 2%            | <p><b>Mar 05, 2007:</b> NFI securitization of \$1.9 billion of loans in late February left it with added risk. They sold ~95% of the deal, likely leaving it exposed to the riskiest 5%.</p> <p><b>Feb 26, 2007:</b> NFI is "hit with class action claims of securities fraud, after reporting last week that it lost \$14.4 million during the fourth quarter and stating that it did not expect to report taxable income for the next five years." The company did later say it expected to report GAAP profit, however.</p> <p><b>Feb 21, 2007:</b> NFI shares fall more than 40% after posting a fourth quarter loss and suggesting it may not earn taxable income from 2007-2011.</p> |
| 20             | Ownit Mortgage              | 1%            | <p><b>Dec 7, 2006:</b> "Ownit Mortgage Solutions Inc., a California-based home lender part-owned by Merrill Lynch &amp; Co., closed this week and told more than 800 workers not to return, a former employee said"</p>  |
| 21             | ResMae Mortgage             | 1%            | <p><b>Mar 05, 2007:</b> Citadel trumps Credit Suisse in bid for ResMAE.</p> <p><b>Feb 13, 2007:</b> ResMAE "announced it has signed an asset purchase agreement with Credit Suisse. Concurrent with the signing, ResMAE has voluntarily filed a petition for reorganization under Chapter 11..."</p>   |
| 22             | ECC Capital                 | 1%            | <p><b>Feb 12, 2007:</b> "Bear Stearns Cos. said Monday it completed its buy of the main operation of Irvine's ECC Capital Corp...The sale is something of a going-out-of-business sale for ECC.</p>  |
| 23             | Fieldstone Mortgage         | 1%            | <p><b>Feb 16, 2007:</b> CBASS offered about \$259 million to buy subprime lender Fieldstone Investment Corp....Fieldstone's stock had lost more than 40 percent of its value this year and 78 percent in the past 12 months."</p> <p><b>Dec 20, 2006:</b> Fieldstone announces amendments to repurchase facilities and plans consolidation of operations centers.</p>  |
| 24             | Nationstar Mortgage         | 1%            |  |
| 25             | Delta Financial             | 1%            |  |

Note: Rankings based on new loan volume in 2006  
Source: Inside B&C Lending

**2Q06 RANK Other Subprime/Alt-A Originators**

|    |                |  |  |
|----|----------------|--|--|
| 11 | First Franklin |  | <p><b>Feb 26, 2007:</b> First Franklin sends letter to lending partners changing its qualifications standards on certain loans.</p>  |
| 12 | GMAC (ResCap)  |  | <p><b>Mar 07, 2007:</b> Analyst predicts \$1 billion charge for bad debt charges associated with bad mortgage loans at GMAC.</p> <p><b>Mar 01, 2007:</b> GM disclosed Thursday that it will delay its 2006 annual report...Many analysts attribute this year's delay to a substantial hit it might take from the exposure GMAC Financial Services has to the mortgage business.</p> <p><b>Feb 19, 2007:</b> GM said Friday it has "substantially completed" its review of financial statements from 2002 until late September 2006 but may seek an extension of a deadline to file its annual report.</p> <p><b>Jan 16, 2007:</b> "ResCap, said in a filing with the SEC that it will reduce its current headcount by 800 jobs and will not fill 200 open positions in its U.S. mortgage business. It now has 14,000 employees worldwide...."</p> <p><b>April 3, 2006:</b> GM sells majority stake in GMAC</p> |
| 19 | MLN            |  | <p><b>Feb 05, 2007:</b> MLN files for bankruptcy</p> <p><b>Jan 27, 2007:</b> MLN has lost a portion of its loan servicing business, dealing another blow to the Middletown-based company, which was already struggling to find an investor to rescue its lending operations.</p>   |

Note: Rankings based on new loan volume in 2006.

Source: Company data, Inside B&C Lending, Credit Suisse analysis.

**Appendix: Other Current Events in the Mortgage Market**

|   |   |
|---|---|
| <b>Mortgage Bankers Association</b>             | <b>Feb 27, 2007:</b> Chairman of MBA responds to FRE - "Today's announcement by Freddie Mac that it will only purchase subprime mortgages – and mortgage-related securities backed by these subprime loans – that qualify borrowers at the fully-indexed rate will limit the product options and the access to credit for those individuals most in need, many of whom are first time, underserved or minority homebuyers. The mortgage products that these new standards target are important financial instruments, crucial to helping borrowers get into homes and repair their credit..."   |
| <b>Freddie Mac/Fannie Mae</b>                   | <b>Mar 06, 2007:</b> Bernanke says investments held by FNM and FRE should be 'anchored' to their affordable housing mission. "The size and the potentially rapid growth of GSE portfolios, combined with the lack of market discipline faced by GSEs, raise substantial systemic risk concerns."<br><b>Feb 27, 2007:</b> FRE will cease buying subprime mortgages with high likelihood of excessive payment shock and possible foreclosure. It will only buy subprime ARMs — and mortgage-related securities backed by these subprime loans — that qualify borrowers at the fully-indexed and fully-amortizing rate. It will limit the use of low-doc underwriting for these types of mortgages.  |
| <b>Impac Mortgage Holdings</b>                  | <b>Mar 02, 2007:</b> Impac (IMH) delays 10-K filing as disclosure controls and procedures and internal control over financial reporting weren't effective...."<br><b>Feb 23, 2007:</b> IMH, a large Alt-A residential REIT, said late yesterday that it lost \$66.3 million during 2006, attributing losses to a compression of net interest margins."  |
| <b>American Home Mortgage</b>                   | <b>Mar 01, 2007:</b> The lender that specializes in loans to mid-tier credit quality borrowers reports that nonaccruing mortgage loans held for sale was \$124.3 million, or 8.13% of the total mortgage loans held for sale portfolio, up from 0.43% in the prior year.  |
| <b>Regulators Issue Draft Guidelines</b>        | <b>Mar 02, 2007:</b> Bank regulators issue draft guidance on subprime mortgages, narrowing the focus to specific products. It addresses concerns that subprime borrowers may not fully understand the risks among other findings. An institution's analysis of a borrower should include an evaluation of its ability to repay at the fully indexed rate. Also when underwriting higher risk loans, stated income and reduced documentation should be accepted only if there are mitigating factors that clearly minimize the need for direct verification of repayment capacity.   |
| <b>Senate Banking Committee</b>                 | <b>Mar 03, 2007:</b> "Two weeks ago, I told Federal Reserve Chairman Bernanke that the federal regulators had given an inadequate response to the December 7, 2006 letter several of my Committee colleagues and I sent them. That letter urged the regulators to extend the exotic mortgage guidance to subprime hybrid adjustable rate mortgages (ARMs). Today, we got the right answer." - Senate Banking Chairman Dodd<br><b>Feb 14, 2007:</b> Senate Banking Committee Chairman is dissatisfied with the response he received from federal regulators to a December letter, saying response to predatory lenders has been inadequate.<br><b>Jan 18, 2007:</b> Senator Chris Dodd (Senate Banking Committee Chairman) makes prepared remarks at meeting. Part of his focus is on predatory lending practices.<br><b>Dec 07, 2006:</b> Senator Chris Dodd and five committee colleagues send letter to regulators (including the Fed), urging them to expand consumer protections for subprime mortgage borrowers. |
| <b>Licensing Initiative</b>                     | <b>Mar 02, 2007:</b> Twenty-nine state agencies have indicated their intent to participate in the Residential Mortgage Licensing System (a national system) by the end of 2009.   |
| <b>Alt-A Delinquencies</b>                      | <b>Mar 01, 2007,</b> Wall Street Journal reports that the pain in the US mortgage market is spreading upward. The article points out that a record \$400 billion of 'Alt-A' mortgages were originated last year, up from \$85 billion in 2003, citing Inside Mortgage Finance.  |
| <b>Alt-A Issuance Strong in 4Q</b>              | <b>Feb 26, 2007:</b> U.S. Alt-A market achieves volume of \$104.8 billion during 4Q06, according to the S&P Rating Services. The total surpassed the \$103.5 billion record set during second-quarter 2006..."  |
| <b>Moody's Reviews<br/>Standard &amp; Poors</b> | <b>Feb 22, 2007:</b> Moody's said it may cut the loan servicing ratings of five lenders.<br><b>Feb 16, 2007:</b> Standard & Poor's said it would no longer wait for homes to be foreclosed on and sold at a loss before alerting investors in mortgage-backed bonds that it expects to lower ratings on the bonds.  |
| <b>Asset Backed Activity</b>                    | <b>March 06, 2007:</b> Issuance of securities backed by risky subprime mortgages has fallen by more than half in the first two months of this year, according to a recent report, threatening an important source of revenue for Wall Street banks.   |
| <b>Goldman/Merrill Lynch</b>                    | <b>Mar 02, 2007:</b> Given the uncertainty pertaining to the banks' exposure to the mortgage market, prices for credit-default swaps linked to their bonds traded at levels that equate to debt ratings of Baa2, according to Moody's Investors Service.  |
| <b>Metropolitan Savings Bank</b>                | <b>Feb 02, 2007:</b> The FDIC assumes the insured deposits of this small (\$15.8 million assets) bank in Pittsburgh. It is the first FDIC-insured bank to fail since mid-2004.  |

Note: Rankings based on new loan volume in 2006.

Source: Company data, Inside B&C Lending, Credit Suisse analysis.

**Appendix: Sample of E-mail Notification of Tightening Lending Standards Sent by Mortgage Lender to Builder**

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Due to rapidly deteriorating market conditions, [LENDER NAME OMITTED] will be making the following adjustments to our Alt-A underwriting guidelines: Minimum FICO score of 620 for Full Doc loans

- Minimum FICO score of 620 for Full Doc loans
- Minimum FICO score of 640 for Full Doc investment properties
- Minimum FICO score of 640 for SIVA
- Max LTV/CLTV 90% for SIVA Investment property
- Minimum FICO score of 680 for SIVA Investment Property
- Max CLTV of 95% for SIVA and SISA doc types
- Minimum FICO score of 660 for SISA
- Investment properties are not an eligible occupancy for SISA
- NIQ and No Doc loans will require a minimum FICO score of 720
- Max LTV/CLTV 50% for No Doc
- Investment properties are not an eligible occupancy for NIQ
- No Doc loans only allow for primary residency
- SIVA, SISA, NIQ & No Doc loans not eligible in Ohio

Changes will be effective on all new locks taken on or after Monday, March 12, 2007.

An updated product profile will be available on Monday, March 12 when the new guidelines take effect.

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*Source: Company data, Credit Suisse analysis.*

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**Companies Mentioned** (Price as of 09 Mar 07)

Beazer Homes USA (BZH, \$35.97, NEUTRAL, TP \$39.00, UNDERWEIGHT)  
 Centex (CTX, \$46.64, NEUTRAL, TP \$53.00, UNDERWEIGHT)  
 Countrywide Financial (CFC, \$36.10, OUTPERFORM, TP \$52.00, MARKET WEIGHT)  
 DR Horton (DHI, \$24.42, NEUTRAL, TP \$24.00, UNDERWEIGHT)  
 Fannie Mae (FNM, \$55.56, NEUTRAL, TP \$63.00, MARKET WEIGHT)  
 Freddie Mac (FRE, \$61.97, NEUTRAL, TP \$71.00, MARKET WEIGHT)  
 Fremont General (FMT, \$8.03)  
 H & R Block Inc. (HRB, \$21.22)  
 Hovnanian Enterprises (HOV, \$29.34, NEUTRAL, TP \$29.00, UNDERWEIGHT)  
 KB Home (KBH, \$47.91, NEUTRAL, TP \$51.00, UNDERWEIGHT)  
 Lennar (LEN, \$48.25, OUTPERFORM, TP \$53.00, UNDERWEIGHT)  
 M.D.C. Holdings, Inc. (MDC, \$50.36, OUTPERFORM, TP \$54.00, UNDERWEIGHT)  
 M/I Homes (MHO, \$29.46, OUTPERFORM, TP \$42.00, UNDERWEIGHT)  
 New Century Financial Corp (NEW, \$3.21)  
 NVR Inc. (NVR, \$700.00, NEUTRAL, TP \$550.00, UNDERWEIGHT)  
 Pulte (PHM, \$28.76, NEUTRAL, TP \$28.00, UNDERWEIGHT)  
 Ryland Group (RYL, \$46.80, UNDERPERFORM, TP \$47.00, UNDERWEIGHT)  
 Standard Pacific (SPF, \$24.21, OUTPERFORM, TP \$29.00, UNDERWEIGHT)  
 Toll Brothers (TOL, \$28.85, NEUTRAL, TP \$31.00, UNDERWEIGHT)  
 WCI Communities, Inc. (WCI, \$20.00, UNDERPERFORM, TP \$14.00, UNDERWEIGHT)  
 Wells Fargo & Company (WFC, \$34.51)

## Disclosure Appendix

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