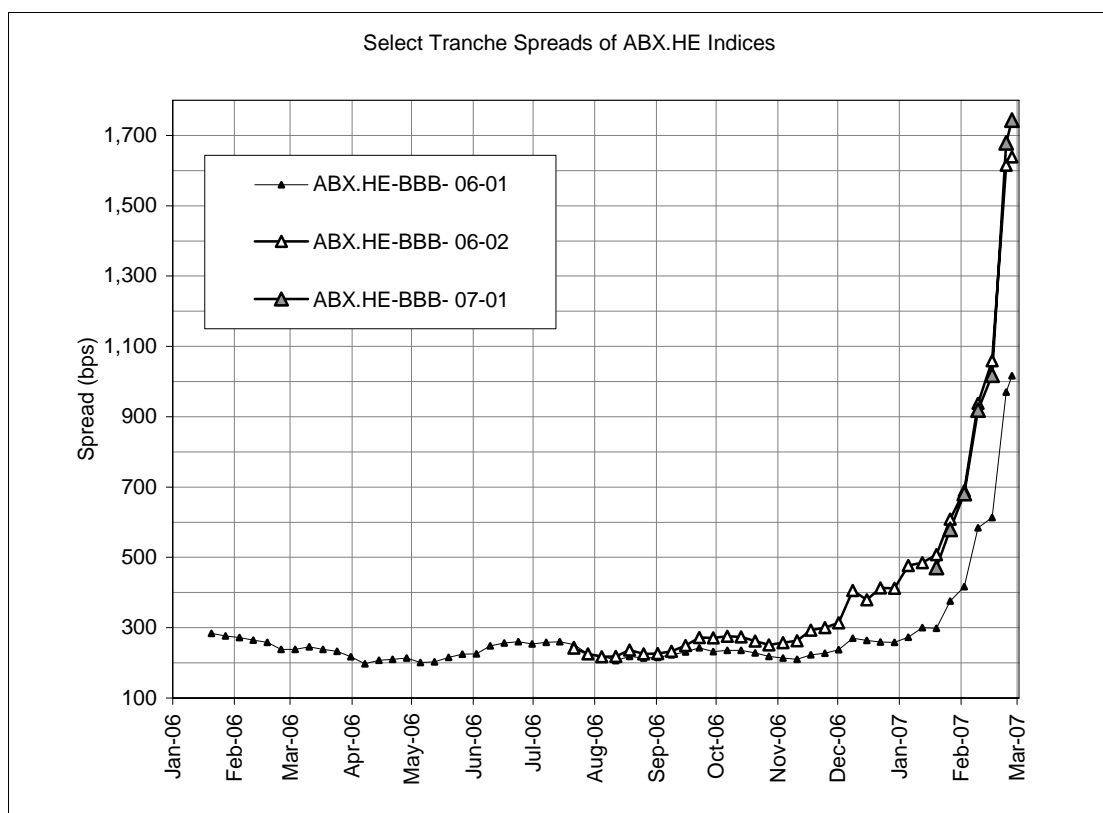


## Securitization & Real Estate Update 2/28/07

### Sub-prime Mortgage Loans, Sub-prime Mortgage ABS, and the ABX Indices

28 February 2007

**Introduction:** As shown in the following chart, recent spread widening of the ABX sub-prime mortgage credit indices has been severe. At first blush the spread widening seems to suggest a severe and widespread deterioration in sub-prime mortgage credit. However, in our opinion, the implication of the ABS spreads is wrong. Although the sub-prime mortgage sector is facing serious difficulties, the ABX spread levels imply that conditions are worse than they actually are. The ABX spread levels imply a high degree of certainty that a large proportion of the underlying reference securities will default. We believe that the matter is far from certain. In other words, we feel that both possible outcomes – either a high proportion of defaults or a low proportion of defaults – are reasonably possible.



Note: Spread data based on 35% CPR assumption. Dealers quote the ABX indices in terms of price rather than spread. We convert the prices to spreads to facilitate comparison among the different series.  
Source: Markit, Nomura Securities International

**The Loans:** Let's start with the loans. High rates of delinquencies and early payment defaults (EPDs) on the 2006 vintage of sub-prime mortgage loans have dominated recent headlines. Meanwhile, sub-prime lenders face growing pressure to repurchase EPD loans, which has forced

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some of them out of business. Together, these factors have produced widespread negative sentiment and have influenced pricing on sub-prime mortgage ABS and related derivatives.

The 2005 and 2006 vintages of sub-prime mortgage loans suffer from having been created at the bottom of the underwriting cycle. In other words, sub-prime lenders had very lenient lending standards in 2005 and 2006. Accordingly, those vintages include many loans with risky features: reduced documentation of the borrowers' capacity to repay, borrowers who are first-time homebuyers, and simultaneous second-lien loans ("piggyback" loans). Many of the borrowers borrowed more than they should have in order to buy homes that they cannot afford. This has pushed household debt ratios to very high levels. Also, most of the loans have adjustable interest rates that can cause payment shock for the borrowers when the loans reach their first adjustment dates (usually on the second or third anniversary). Finally, home prices are at "bubble" levels in many parts of the country, which makes home ownership unaffordable for many families.

**Positive Economic Environment:** Despite the negative signals from the sub-prime mortgage sector, strongly positive signals come from other sources: The U.S. unemployment rate is low. Interest rates are moderate. Corporate profits are solid and corporate bond defaults are at their lowest levels in 25 years. Consumer confidence is strong. Even after yesterday's 416 point drop in the Dow Jones Industrial Average, Fed Chairman Bernanke said this morning that financial markets "seem to be working well" and that "[t]here's a reasonable possibility that we'll see some strengthening of the [U.S.] economy sometime during the middle of the year."

**Uncertain Home Prices:** The future path of home prices will be one of the key determinants of how sub-prime mortgage loans perform over the coming years. Naturally, rising or stable home prices would produce a more desirable outcome than would declining prices. Rising home prices seem unlikely because housing already is unaffordable in many areas. However, stable prices are possible. If home prices hold near their current levels for several years, wages and the prices of other goods and services might have time to catch-up. That could restore housing to a level of affordability that is closer to its historical norm. On the other hand, the bubble might burst for any reason or for no reason at all. Home prices in some markets already have started to weaken. In addition, sales of new homes recently declined by more than 16%, to their lowest level in 13 years.

**Soft Landing Scenario:** We feel that a soft landing – where home prices remain roughly stable for a period of years to restore housing affordability – remains the more likely scenario. We place the odds of such a scenario in the range of 60% to 70%. In such a scenario, many sub-prime borrowers likely would avoid default by refinancing their loans or selling their homes. Losses on securitized pools of sub-prime mortgage loans would be moderately higher than in recent past. Credit enhancement in most sub-prime mortgage ABS deals would be sufficient to insulate tranches at the triple-B and triple-B-minus levels from losses. However, a modest proportion of tranches at those levels would suffer losses. Most of those tranches would be concentrated in the 2005 and 2006 vintages. Losses would be rare for tranches at higher credit-quality levels and for tranches from older deals.

**Hard Landing Scenario:** However, the possibility of a hard landing scenario has become significant: somewhere in the range of 30% to 40%, in our opinion. In a hard landing scenario, home prices would decline by up to 10% in some key markets. That could produce widespread losses in securitized pools to a degree that would impair or entirely wipe-out many ABS tranches at the triple-B and triple-B-minus levels. Indeed, even a few tranches at the single-A level would suffer losses in such a scenario.<sup>1</sup>

Using credit default swaps (CDS), the CDO sector has taken an exposure triple-B and triple-B-minus sub-prime mortgage ABS that significantly exceeds the amount of securities actually issued. This

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<sup>1</sup> We also perceive a likelihood of 2% to 3% for a "very hard landing" scenario that would be worse than the Texas real estate bust of the 1980s. In such a scenario home price declines of 10% or more would occur in most markets and some key markets would suffer declines of up to 30%. Virtually all triple-B and triple-B-minus tranches of sub-prime mortgage ABS would be wiped out, as would many single-A tranches. Even some double-A tranches would suffer losses.

arguably makes the CDO sector especially vulnerable to a hard landing scenario. In such a scenario, equity and subordinate tranches of many ABS CDOs likely would suffer total loss.

Uncertainty is now the main challenge for market participants in the sub-prime mortgage ABS area. The challenge is amplified for those exposed at the triple-B and triple-B-minus credit levels because those tranches are very thin slices of the capital structure of their deals. Therefore, a relatively small change in loan performance can mean the difference between a full recovery and a total loss on the tranches. In addition, the uncertainty is likely to persist for some time. Loans that become delinquent this month generally would not produce losses sooner than the middle of 2008. Therefore, the ultimate fate of the triple-B and triple-B-minus tranches from the 2005 and 2006 vintages may not be known for years.

**What's Driving the ABX Indices?:** We believe that technical factors rather than fundamentals are now the primary force driving spread levels (pricing) on the ABX indices. Indeed, the current spread levels seem completely divorced from the fundamentals. Anecdotal evidence indicates that only a very small volume of contracts actually are trading and that the bid-ask spread quoted by dealers has become very wide.

In most situations, finding an instrument that is priced away from its fundamental value represents an opportunity for traders. If the price is below fundamental value, a trader can buy the instrument with the intention of holding it until the market re-prices it to its fundamental value. However, that strategy relies on the presumption that the market will return to fundamentals within a reasonable time. When the magnitude of the market's mis-pricing (*i.e.*, the gap between the market price and the fundamental value) is small, it may be reasonable to presume that the market can readily return to pricing based on fundamentals. But, when the magnitude of the mis-pricing is large, it becomes doubtful that fundamentals can quickly reassert control.

Therefore, despite our view that the ABX spreads are wider than can be justified by fundamental factors, we do not recommend trying to exploit the mis-pricing by selling protection. Instead, we recommend staying out of the ABX for the near term.

**Sub-prime Lending Industry:** There is somewhat less uncertainty for the sub-prime mortgage industry itself. The outlook is decidedly negative. Several lenders already have collapsed or ceased operations (*e.g.*, Mortgage Lenders Network, Ownit, ResMae) and others have announced disappointing performance (*e.g.*, Novastar, New Century, HSBC). The industry remains plagued by excess lending capacity, which was one of the drivers of lax underwriting. We expect that the sub-prime lending industry will stabilize after it has purged roughly 30% of its capacity relative to the peak levels of 2006. This likely will translate into workforce reductions numbering in the tens of thousands within the sector.

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