

WHAT IS THE “NORMAL” SUBPRIME LIFETIME DEFAULT RATE?

SUMMARY

- X Benchmarking a “normal” subprime lifetime default rate depends on how far back you look.
- X One view using historical data from 1996 suggests long term lifetime subprime defaults of about 5%.
- X The decision to use or ignore historical default data in developing a view of performance is a management (not modeler) decision. It could decide the fate of the subprime business in tough times.

ANALYSIS

Many are aware of poor price performance in ABX indices. There is an effort to discern whether recent pricing behavior reflects credit fundamentals or trading technicals. Current market analyses usually contain a variant of “performance of the deals backing the 2006-2 ABX is the worst since the 2001 vintage...” The implications are subtle, yet unmistakable: “2001 subprime performance was an aberration.” Is this a reasonable core assumption?

What if 2001 subprime performance was not an aberration, but instead reflects average subprime performance? What does the data tell us? First, we do not yet know the long-term performance of more recent subprime vintages. Therefore, developing reasonable estimates is key. We look to Lehman Live, which summarizes Loan Performance data, for insight.

For comparison purposes, the 1996 subprime vintage resulted in about 3.5% lifetime losses. The early loss performance of the 2002 – 2005 vintages tracks favorable to the 1996 book. Let’s assume these vintages will default at roughly the same 3.5% lifetime default rate. Given that the recent subprime production is dominated by ARMs, our analysis will consider past ARM performance of the 1997 – 2001 vintages (which performed marginally better than fixed-rate loans). The 2001 ARM vintage looks like it is tracking 1997 ARM performance, which experienced about 5% in lifetime losses.

Recent analysis published in UBS’ Mortgage Strategist suggests lifetime losses for the deals backing the 2006 and 2007 ABX indices may exceed 8%.¹ After rounding results to the nearest 0.5%, we develop the following table of lifetime subprime losses for 1996 – 2007.

LIFETIME SUBPRIME LOSSES BY VINTAGE:

1996	3.5%
1997	5.0%
1998	6.0%
1999	5.0%
2000	6.0%
2001	5.0%
2002	3.5%
2003	3.5%
2004	3.5%
2005	3.5%
2006	8.0%
2007	8.0%

Within the context of twelve years of history, 2001 loss performance doesn't look like an aberration. The data above suggest that the average for the 1996–2007 period is about 5%.

It may take another credit cycle or two to know with more certainty, but we could conceivably look back at 2002 – 2005 as the golden era of subprime credit performance. This was a period when the best house price appreciation in twenty years combined with a steep yield curve and low unemployment to create a very favorable credit environment for subprime. Yet, even with this unlikely confluence of events, lifetime subprime losses will have averaged 3% - 4%, the industry consensus.

What is the basis for a consensus view of 3% - 4% lifetime losses for subprime? It has been quite surprising how entrenched and enduring the industry view of 3% -4% lifetime losses is, even among rating agency analysts. The following is excerpted from an unpublished analysis written in 2002, where this issue was considered, given the disappointing performance of a subprime portfolio from the 1997 and 1998 vintages:

“Nonetheless, the data doesn't support the market consensus view of 3% - 4% lifetime losses. The 1997/1998 subprime vintages appear to be converging on 5% - 6%. Notably, more recent vintages are behaving similarly. Yet dealer research continues to describe the data as anomalous. We don't concur with a consensus that views consistent 5%-6% loss levels as abnormally high. It more aptly fits the definition of average experience.

“An alternate view may be that failure after five or six years is normal in an industry for which no consistent long-term business model has evolved. Subprime product quickly prepays good credit risks early, leaving a long, stubborn tail of high-cost credits in latter years with no revenue support. What is the appropriate business model for such extreme front-end revenue loading and back-end expense loading? A growth strategy is most tempting (i.e., fund a growing expense base by replacing vanishing revenue sources faster than it runs off).

“But a growth strategy is difficult to execute without sacrificing credit quality. And it can't work for long, particularly if everyone else is doing it. It's a trap into which many issuers have fallen and failed. After each failure, equity holders, residual holders, and subordinate bondholders finance the shortfall with paid-in capital. Meanwhile, managers of the failed firms can walk away from the wreck and start the cycle anew, unfettered by the burden of a high-cost servicing portfolio.

“It follows that the default experience of these business failures can then be forgotten or written off as “exceptions” by industry observers. The overall effect is similar to survival bias that occurs in the mutual fund industry; consistent under-performers go out of business or are folded into new funds, erasing the record of their sorry past. Investors analyzing average performance of the survivors over the last five to ten years then mistake it for average industry performance....”

Who should make the decision to assume what “average” is? The decision to use or ignore past data is a judgment call; there is no absolute or right answer. Nonetheless, it is one of the critical decisions driving the viability of the subprime business model. Given the judgment necessary and the importance of the decision, determining what “average” rate your firm uses should be a decision made and supported by management, not delegated to modelers. Once management decides on long-term “average” losses (e.g., 3% or 6%), the modeling team can work on attribution, quantifying the risk factors that tend to increase or decrease losses relative to average and qualifying the methodology and reason to support management's view.

Why is this decision so critical? In essence, it can decide the fate of the business. For example, the aggressiveness of subprime whole loan pricing starting in late 2005 through 2006 is well documented. The presumed value of the resulting residuals (the primary asset for many subprime originators) would be positive if one believes that 3% is the right lifetime default assumption, or close to worthless if 6% is assumed. As noted above, an analysis published by UBS suggests that losses for the 2006 and 2007 vintages may exceed 8%. Firms that bet big on 2006 subprime production and kept their residuals could easily go out of business.

There is no advocacy that businesses should simply shut down when market pricing doesn't support internal loss assumptions. But, it is possible to operate with a view that differs from other market participants. Under these circumstances, businesses can employ tactics to keep the doors open and weather the storm while deflecting the bulk of the risk to other market participants with a different market outlook. Businesses that are willing and able to use history as a guide – and not something to ignore – may demonstrate greater resilience and upside in the future.