

# INVESTMENT UPDATE

As our clients are all too aware, bond managers aren't the most exciting group of people on the planet (our motto: "At Least We're Not Actuaries!"). So it will come as no surprise that fixed income analysts tingle with anticipation this time every year awaiting the annual publication of Moody's *Corporate Default and Recovery Rates*.

OK, "tingle with anticipation" may be pushing things a little, but even bond geeks who don't read bond indentures for entertainment are interested in this report, as it provides a detailed update of the US credit cycle.

To back up a bit, for the past twenty years, Moody's Investors Service, one of the major ratings agencies specializing in evaluating companies' and municipalities' credit worthiness, produces a hefty report each February, detailing the corporate defaults of the year—that is, the companies that failed to make coupon and/or principal payments in the previous twelve months. This report includes historical default data going back to 1920. The analysis has expanded in recent years to also track the recovery rates that investors experienced from previously-defaulted credits. In addition, Moody's provides a forecast as to the likely direction of defaults for the upcoming year. As a final note, this year's study included Moody's-rated corporate loans in the universe, in addition to corporate bonds.

Now, on to the excitement! In the final analysis, 2006 was a very good year in the credit markets, a year in which no investment grade-rated companies (that is, those rated Baa3 or higher) defaulted. Even among speculative grade issuers, the results were very strong: With 30 issuers defaulting in 2006, a rate of 1.57%, non-investment grade bonds had the second-lowest annual default rate since the formation of the modern-day junk bond market in the early-1980's. The

rate was even lower, at 1.05% for speculative grade bonds, if we measure the dollar amount of defaults as a percent of the junk bond market value (there were no "huge" companies defaulting in 2006). The combined, overall default rate for all grades was 0.54% (issuer weighted) in 2006, less than half the 87-year average of 1.09%.

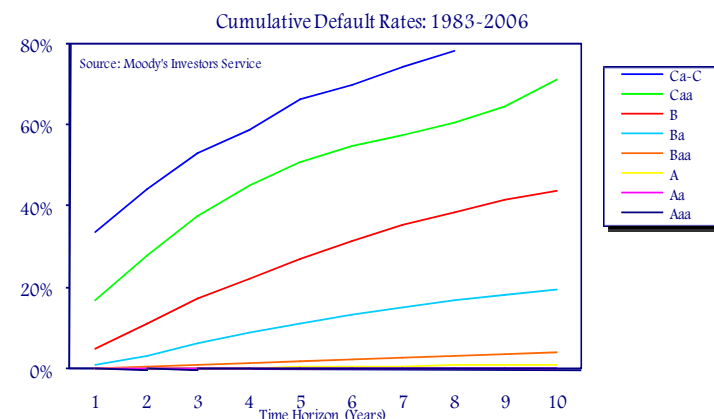
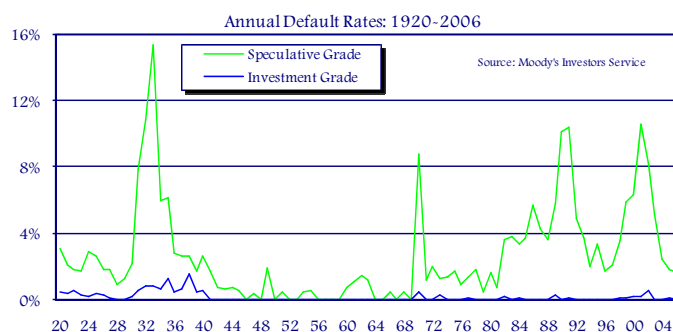
As the top chart shows, annual default rates for investment grade bonds are extremely low, averaging just 0.15% over this 87-year period. In other words, only about 1.5 high grade bonds out of every 1000 have defaulted per year on average over this time frame.

In most years (53 out of the past 87, to be exact), there are no investment grade defaults at all. Of course, some years are worse than others, and we need only cast our eyes back to 2002, when 17 investment grade borrowers totaling \$69 billion in bonds and loans went belly-up, a default rate of 0.51%. Yet the chart also demonstrates that, even in their worst years, investment grade defaults are well below those of speculative grade bonds, especially during the lowest troughs of the credit cycle, when default rates on junk bonds can exceed 10% annually.

But the so-called "one year" default rate isn't the whole story; investors are equally interested in how companies' default rates change over time. In other words, what are the chances that a single-A rated bond bought today will default not just this

year, but over the next five or ten years? Moody's tracks the history of individual bonds as they were rated backwards in time—if a bond was rated "AA" five years ago, it will be included in the five-year default rate for AA bonds, regardless of what it is rated today.

The bottom chart shows how these "cumulative" default rates change over time, for each level of bond quality (this chart covers the period since 1983, the beginning of the



modern junk bond market; you will also notice that Moody's didn't track "Ca-C" bonds for the entire period). Note how default rates creep up with the passage of time. The chart also shows the significantly higher risk of default for the lowest rated bonds, and the relative safety of higher quality corporate bonds. For instance, even after ten years, the average bond rated "Baa" (the lowest rung of the investment grade ladder) experiences a default rate of only 4.4%. Compare this to Ba-rated bonds, which have a default rate of almost 4% after just two years, and a nearly 20% chance of defaulting over ten years. As the chart also demonstrates, things get "real ugly, real quick" for the lowest-rated bonds; a quick glance shows that, on average, in just five years, more Caa-rated bonds default than survive.

The next piece of the puzzle is default recovery rates. Moody's measures recovery rates by recording the bid-side price of the defaulted bond (or loan) 30 days after default. This time period coincides with the date at which most portfolio managers have to comply with rules dictating disposal of defaulted securities.

Moody's points out that the price at which defaulted securities trade shortly after default reflects the marketplace's best estimation of what investors'

ultimate recovery will be. While some may criticize this methodology as overly simplistic, it is an objective, straightforward measurement, and avoids the disagreements over discount rates, varying times to recovery, asset valuations, etc. that surround alternative measures of recovery rates.

As with other default measures, 2006 also proved to be a very strong year for default recovery rates, for both senior and subordinated debt. The table above (reproduced from Moody's) compares 2006 recovery rates, both issuer-weighted and market value-weighted in 2006, in 2005, and the 1982-2006 averages. For benchmark senior unsecured bonds, the issuer-weighted recovery rate was 58.3% (in other words, investors recovered 58.3 cents on the dollar), above 2005's 55.5% and well above the 25-year average of 38.4%. On a value-weighted basis, the results were even more impressive (recovery rates were very high for the largest defaulted issuers in 2006) with senior unsecured bonds at 71.2%, the highest level since 1987.

Recovery rates are highly correlated with economic health; stronger macroeconomic environments are associated with

lower chances of default *and* better recovery rates on money lost on defaulting issuers. Looking back at the 2000-2002 recessionary period, we see that the issuer-weighted recovery rate ranged between 20% and 30%, the lowest rates over the 25 year period; we find a similar pattern, though not as severe, in the 1990-1991 recession.

Putting default rates and recovery rates together yields what Moody's calls an "average annual credit loss." Given the strong performance of its two components, we should expect this measure would have also posted good results for 2006, and it did. In fact, the overall (investment and speculative grade combined) credit loss for last year came in at 0.23%, the lowest dating back to this statistic's inception in 1982.

So, how can we use this historical data to help our clients going forward? Moody's does provide a forecast for future default rates for non-investment grade bonds only. Their outlook for 2007 calls for a doubling in defaults for junk

bonds (albeit, as we've seen, from a very low base), primarily driven by first-time, single-B (and lower) rated issuers who were able to get financing over the past couple of years due to ample liquidity and high risk tolerance

among junk bond investors and lenders. Investors in some of these ultra-low quality bonds are sure to regret not asking for a greater margin of safety for taking on such a high degree of credit risk. The credit cycle, after all, has not yet been repealed.

Our attention (and our clients' money) is much more focused on high grade corporates, where we expect to see a very gradual deterioration of credit quality, and over a much longer time period. Our macro outlook calls for a moderation in US GDP, an easing in core inflation, and lower profit growth—a fairly benign environment for investors, yet one where the normal pressures from shareholders asking management to "enhance shareholder wealth" are likely to increase. This is all very typical as we enter the downward phase of the credit cycle. In the months and years ahead, we will increase our selectivity of credits and move up even further in quality, investing in companies still in debt reduction mode or those that can generate growth (and therefore keep shareholders happy) without jeopardizing credit quality.

Average Corporate Debt Recovery Rates, 1982-2006

	Issuer-Weighted			Value-Weighted		
	2006	2005	1982-2006	2006	2005	1982-2006
<b>Bank Loans</b>						
Sr. Secured	76.02	82.07	70.41	68.38	91.80	64.68
Sr. Unsecured	--	36.67	54.02	--	36.67	46.00
<b>Bonds</b>						
Sr. Secured	74.63	69.21	54.44	75.32	78.43	58.70
Sr. Unsecured	58.29	55.51	38.39	71.15	48.21	37.04
Sr. Subordinated	43.61	30.95	32.85	39.77	33.62	29.25
Subordinated	56.11	51.25	31.61	61.05	11.90	29.54
Jr. Subordinated	--	--	24.47	--	--	17.38

