



## A.M. BEST COMPANY, INC.

Form NRSRO: Exhibit 1

# Update of Credit Ratings Performance Measurement Statistics Through Year-End 2008

This is the sixth study conducted by A.M. Best Co. on the long-term impairment rates of A.M. Best-rated, U.S.-domiciled insurance companies. It updates *Best's Impairment Rate and Rating Transition Study – 1977 to 2007*, published April 21, 2008.

The study covers the 31 one-year periods from Dec. 31, 1977 to Dec. 31, 2008 and only includes companies that had a Best's Financial Strength Rating (FSR) over this period. Of the 5,100 individual U.S. companies that carried a Best's FSR, an average of 22.4 companies per year, or 694 companies, became financially impaired. Impairment, generally defined as any official action by state regulators that restricts the insurance business activity of an operating insurance company, goes beyond the traditional concept of issuer defaults as discussed later.

Since the last impairment study (which included impairments from 1977 through 2007), five companies have been added to the list of impaired insurers for 2008, as listed in **Exhibit 4**. This low impairment count continues a recent trend in which annual impairments have gone from 41 in 2002 to five in 2008. From 2002 to 2007, insurance companies generally have been buoyed by a relatively robust equity market; a moderate overall market for premium pricing; and above-average economic growth. The historical low impairment trend in this period paralleled the results found in corporate default studies conducted by other credit rating agencies. However, A.M. Best fully expects that the impairment count will increase in 2009 as the lagged effect of the current severe economic recession is felt and revealed by the insurance industry. The average annual impairment rate for all insurers was 0.69%. Secure companies – with FSRs of “B+” (Good) and above – and Vulnerable companies – with FSRs of “B” (Fair) and below – had average annual impairment rates of 0.25% and 3.62%, respectively.

A.M. Best's rating transition rates remained stable over the period covered by the study. Among companies with Secure ratings, 98.13% maintained their Secure status over a one-year period. The remaining 1.87% were downgraded to Vulnerable or became impaired over a one-year period.

## Motivation for This Study

*Best's Impairment Rate and Rating Transition Study – 1977 to 2008* (Best's Impairment Rate and Rating Transition Study) responds to the need for insurance industry data for use in insurance-linked transactions, including the securitization of trust-preferred securities and surplus notes, reinsurance recoverables, structured settlements and life settlements, among others. General corporate bond default statistics are inappropriate for assessing insurance credit risks in such transactions because of the unique regulatory and accounting environment in which insurers operate, and because relatively few insurers issue public debt. This study also is useful for assessing capital requirements associated with entities such as sidecars, protected cells and bankruptcy-remote vehicles where the life of the transaction and the covered risks are well defined and limited.

A.M. Best embarked on this study to estimate rates of impairment for insurance companies that can serve as the basis for estimating the likelihood of defaults on financial obligations made by those companies. As detailed later, “impairment” is a substantially wider category of financial duress than an event of default. In particular, impairment frequently occurs when an insurer still is able to meet its current policyholder obligations, yet regulators have become sufficiently concerned about the degree of current or future solvency to intervene in the insurer's business. This leads to substantially higher impairment rates at any given rating level than would be observed purely using default data.

## This Study vs. Prior Best's Insolvency/Impairment Studies

The major differences between this study and the general impairment studies (formerly called insolvency studies) are:

- This study serves as a basis for estimating the likelihood of default. The purpose of the general impairment studies is to provide insight into the underlying causes of impairment.
- This study calculates one-year to 15-year cumulative average impairment rates by applying the static pool methodology commonly employed by the credit rating industry in issuer default studies. The general impairment studies do not calculate long-term impairment rates.



- This study covers impairments only of A.M. Best-rated companies with interactive FSRs — those companies cover 98% of U.S. industry premium volume. The general impairment studies focus on impairments of all companies in the insurance industry, regardless of whether the impaired companies were rated by A.M. Best.
- This study includes a conversion of A.M. Best-rated insurance company impairment rates to the implied impairment rates associated with debt issued by insurance holding companies.
- This study tabulates impairment statistics for the combined P/C and L/H sectors. The general impairment studies provide separate reports for each sector.
- This study covers the time period from year-end 1977 to year-end 2008. The last general P/C impairment study covered the period from 1969 to 2007, and the last general L/H impairment study covered the period from 1976 to 2007. Again, updated general studies through 2008 are scheduled for April 2009 and May 2009 for the P/C and L/H sectors, respectively.
- This study covers insurers domiciled in the United States, excluding U.S. territories. The general studies include U.S. territories.
- This study is titled Best's Impairment Rate and Rating Transition Study — 1977 to 2008 to distinguish it from the general impairment studies and their updates.

## Definition of Impairment

A.M. Best designates an insurer as a Financially Impaired Company (FIC) upon the first official regulatory action taken by an insurance department. Such state actions include involuntary liquidation because of insolvency, as well as other regulatory processes and procedures such as supervision, rehabilitation, receivership, conservatorship, a cease-and-desist order, suspension, license revocation, administrative order and any other action that restricts a company's freedom to conduct its insurance business as normal. Companies that enter voluntary dissolution and are not under financial duress at that time are not counted as financially impaired.

## Impairments vs. Defaults

The definition of financial impairment is different from that of issuer defaults generally used in the credit markets. The credit markets broadly deem an issuer default as having occurred when an issuer misses interest or principal payments on its obligations; restructures its debt in a way that is deleterious to investors; or files for bankruptcy. Financial impairment of insurance companies, by contrast, often occurs even if an insurance company has not formally been declared insolvent. For instance, an FIC's capital and surplus could have been deemed inadequate to meet risk-based capital requirements, or there might have been regulatory concern regarding its general financial condition. Thus, at any given rating level, more insurers would be impaired, according to the A.M. Best definition, than actually would default on policyholder obligations.

Another important reason for focusing on impairment rates, rather than defaults on policyholder obligations, is the difficulty in defining what constitutes the latter. In particular, the common practice of commutation means that it often is unclear whether default, as normally defined in the credit markets, has taken place or not. This is because, while the policyholder might be agreeing to a commutation to avoid the risk of the insurer becoming insolvent in the future, other factors, such as the liquidity value of receiving payment now or the future uncertainty of the ultimate size of the claim, often influence commutation agreements.

## Financial Strength Rating Categories

In 1977, A.M. Best had the following seven FSR categories (excluding the impaired category): "A+," "A," "B+," "B," "C+," "C" and "D." By 1992, the company had expanded its FSR scale to the following 13 categories to recognize finer distinctions in credit quality among insurance companies: "A++," "A+," "A," "A-," "B++," "B+," "B," "B-," "C++," "C+," "C," "C-" and "D." Companies rated "B+" and above are considered Secure, and companies rated "B" and below are considered Vulnerable. These same FSR categories remain in use today.

Please note that in A.M. Best's FSR scale, the symbol "D," which includes the "NA-7" rating category, does not designate financial impairment. The designation for financial impairment in the period covered by the study includes the following ratings: "E," "F" and "NA-10." The "E" and "NA-10" ratings are used to indicate companies that are under regulatory supervision. The "F" rating is used for companies in liquidation, which may include voluntary dissolutions that are not impairments. For the purposes of this study, the nomenclature "impaired" or "impairments" will appear on various tables and graphs to designate FICs with "E," "F" and "NA-10" ratings assigned by A.M. Best and regulatory interventions that did not otherwise trigger an A.M. Best impaired rating.

To facilitate the comparison across time, this study has grouped FSRs (excluding the impaired category) into the following seven categories: "A++/A+," "A/A-," "B++/B+," "B/B-," "C++/C+," "C/C-" and "D." The ratings in this study are determined at year end. Multiple rating actions in a given year are ignored. There are two exceptions to this rule: 1) when a company becomes financially



impaired, the impairment designation is maintained even if the company emerges from regulatory supervision by year end, and 2) when a company's rating is withdrawn at the company's request, the last rating issued by A.M. Best just before the withdrawal is maintained in the year of the rating withdrawal.

## Companies Covered

The study includes property/casualty and life/health insurance companies domiciled in the United States that traditionally have filed statutory statements. Managed care companies are excluded from the life/health pool.

Specifically, the study covers 694 financially impaired companies out of the 5,100 insurance companies that had a Best's FSR at some point between Dec. 31, 1977 and Dec. 31, 2008.

The data in "Impairment Count by Year – 1978 to 2008" (**Exhibit 1**) represent impaired companies that had received at least one Best's FSR between Dec. 31, 1977 and Dec. 31, 2008. This impairment list is markedly different from prior lists published by A.M. Best because it counts only companies previously rated by A.M. Best in that period. Some of these companies had no A.M. Best rating assigned to them at the time of impairment, since they became impaired after A.M. Best ceased to rate them. These companies are included in the study, however, as dictated by the static pool methodology described in the section titled "Static Pool-Based Calculation Methodology."

The reader should be aware that impairment counts in this impairment study and prior studies are based on individual companies, not on groups or rating units. As such, the failure of a large group can affect annual impairment counts significantly. For example, nine of the 27 impairments in 1999 are attributed to the impairment of General American Life Insurance Co.

The reader also should be aware that A.M. Best will continue to improve and possibly expand the database upon which this impairment study is based. Updates, therefore, may include corrections to the data, or they may include or exclude new insurance companies previously excluded from or included in prior studies.

These adjustments to the data or inclusion criteria may make it difficult to compare the results of one study to its predecessors. To maintain as much consistency as possible, however, the study's updates and revisions will be done from the common starting point of Dec. 31, 1977.

## Impairment Rates

"Best's Cumulative Average Impairment Rates" (**Exhibit 2**), shows the cumulative average impairment rates calculated using the static pool methodology. The data show an inverse relationship between FSRs and impairment rates: the lower the FSR, the higher the rate of impairment. Specifically, over a one-year period, the impairment rate for companies in the highest Best's Rating category, "A++/A+," was 0.06%. It is important to note that no insurance companies rated "A++" have become impaired since that rating category was introduced in 1992. The one-year impairment rate for companies in the lowest rating category, "D," was 7.27%. The rate of impairment for the companies in the "A/A-" rating category, where the highest percentage of insurance companies evaluated by A.M. Best are rated, was 0.19%.

Impairment rates also vary across time. The data in **Exhibit 2** show that the insurance companies with FSRs of "A++/A+" had the lowest impairment rates, ranging from 0.06% over a one-year period to 4.02% over a 15-year period. By contrast, the insurance companies with an FSR of "D" had the highest impairment rates, ranging from 7.27% over a one-year period to 49.48% over a 15-year period. The one-year to 15-year impairment rates for the insurance companies with "A/A-" ratings ranged from 0.19% to 7.35%.

The data further show that the rate of increase in impairment rates is most significant in the early years. For example, the cumulative average impairment rate of "A++/A+"-rated companies moves from 0.06% in the first year to 0.19% in the second year – about a threefold increase. By comparison, the increase in impairment rates from year two to year three (i.e. from 0.19% to 0.34%) is only about a twofold increase. This is the same trend found in issuer default studies, although with higher rates because of the substantially wider concept of impairment compared with default as described earlier.

The one-year impairment rate for all A.M. Best-rated companies was approximately 0.69%. Separating the ratings into Secure and Vulnerable rating categories, however, reveals that Secure companies have a one-year impairment rate of 0.25%, while Vulnerable companies have an impairment rate of 3.62%. Thus, the one-year impairment rate of Vulnerable companies is approximately 15 times the one-year impairment rate of Secure companies.



## Rating Transition

Rating transition tables can reveal to what extent ratings are stable across different periods. **Exhibit 3**, “Best’s One-Year Rating Transition Matrix,” shows the percentage of ratings that moved from one rating category to another in a one-year period. For example, 91.57% of the companies rated “A/A-” remained in the “A/A-” category one year later. The percentage of the “A/A-” companies that were upgraded one year later to “A++/A+” is 4.06%, while the percentage of the “A/A-” companies that were downgraded to “B++/B+” is 3.38%. The percentage of the “A/A-” companies that were downgraded to any rating below “A/A-,” including the impaired category, is 4.38%. Please note “Best’s One-Year Rating Transition Matrix” does not reflect the one-year rating movement from 2007 to 2008. Instead, it reflects the one-year rating movements over the 31 one-year periods from 1977 to 2008 which is covered in this study.

Generally, as ratings decline, the percentage of companies maintaining the same rating over a one-year period also declines. For example, 91.57% of the companies with an “A/A-” rating remained in that same rating category one year later, but only 81.56% of companies with a “B++/B+” rating stayed in that category one year later.

Overall, the likelihood of a Secure company keeping its rating in the Secure range over a one-year period is 98.13%, while the likelihood of a Vulnerable company keeping its rating in the Vulnerable range over the same period is 90.10%, as shown at the bottom of **Exhibit 3**.

## Static Pool-Based Calculation Methodology

This study applies the static pool approach commonly used in credit market default studies to calculate the cumulative average impairment rates shown in **Exhibit 2**, “Best’s Cumulative Average Impairment Rates.” In general, yearly average impairment rates are accumulated to calculate cumulative average impairment. An example will illustrate how this approach is applied in practice to determine the one-year and two-year cumulative average impairment rates.

The 1977 static pool consists of insurance companies that had a Best’s FSR as of Dec. 31, 1977, and were not financially impaired. Those same insurance companies are observed again at the end of 1978 to see how many had become financially impaired during 1978. A new static pool is determined at the end of 1978 and followed to the end of 1979, once again to observe the number of financial impairments. This pattern is repeated until the last static pool formed at the end of 2007 is followed to the end of 2008. The total number of impairments in the 31 static pools – formed from year-end 1977 to year-end 2007 – are added and then divided by the total number of companies in the 30 static pools. This calculation is used to produce the one-year average impairment rates for each of the seven rating categories described earlier.

To calculate the two-year average impairment rate, a methodology similar to the one used for the one-year average impairment rate is applied, except that the impairment count used in this case is the number of impairments in the second year after the formation of each static pool. Specifically, the 1977 static pool is observed two years later to see how many companies had become financially impaired by year-end 1979. The 1978 static pool is observed two years later to see how many insurance companies had become financially impaired by year-end 1980, and so on. Note that the static pools used for the two-year average impairment rate calculation are the static pools formed from year-end 1977 to year-end 2006, since the last data in the study are from year-end 2008. The total number of impairments in the second year for each static pool is added and then divided by the total companies in the 30 static pools to produce the two-year average impairment rate. To calculate the two-year cumulative average impairment rate, the one-year average impairment rate is added to the two-year average impairment rate. This process is continued until the 15-year cumulative average impairment rate is calculated.

To illustrate the process further, observe how the one-year, two-year and three-year cumulative average impairment rates – 0.06%, 0.19% and 0.34%, respectively – in **Exhibit 2** are calculated for the “A++/A+” rating category. The one-year, two-year and three-year average impairment rates calculated using the methodology described in the previous paragraphs are 0.0587%, 0.1268% and 0.1547%. The one-year cumulative average impairment rate is simply the one-year average impairment rate of 0.0587% (rounded to 0.06%). The two-year cumulative average impairment rate, 0.1855% (rounded to 0.19%), is the sum of the one-year and the two-year average impairment rates ( $0.0587\% + 0.1268\% =$  approximately 0.19%). The three-year cumulative average impairment rate, 0.3402% (rounded to 0.34%), is the sum of the one-year, two-year and three-year average impairment rates ( $0.0587\% + 0.1268\% + 0.1547\% =$  approximately 0.34%).

Note that although this study presents only the one-year to 15-year cumulative average impairment rates, the data underpinning these calculations cover the 31 one-year periods from year-end 1977 to year-end 2008. Thus, the one-year cumulative average impairment rate uses 31 data points for the calculation, the two-year cumulative average impairment rate uses 30 data points, the three-year cumulative average impairment rate uses 29 data points, and so on.



These calculations are adjusted for withdrawal of ratings. Ratings can be withdrawn for several reasons, including: voluntary liquidations; mergers and acquisitions; company request; lack of proper financial information for the evaluation of companies; and substantial changes in companies that make A.M. Best's rating process inapplicable. In the event that a company requests that its rating be withdrawn, the study captures the last rating just before the withdrawal.

The adjustment for withdrawals is made by reducing the static-pool count — the denominator in the impairment rate calculation — by the number of withdrawals in the calculation period, while maintaining the same impairment count — the numerator in the impairment rate calculation. The effect is to increase the impairment rate over what it would have been without the adjustment.

It is important to emphasize that this study includes the effect of impairments long after a company has ceased being rated by A.M. Best. For example if a company rated "A-" requests that A.M. Best withdraws its rating and becomes impaired 5 years later, that impairment is tabulated in the 5-year default probability although A.M. Best had not rated the company for 5 years.



# Appendix

## Exhibit 1 Impairment Count by Year (1978 - 2008)

Year	No. of Impairments*	% of Total Impairments
1978	8	(8/694)*100=1.2%
1979	6	0.9%
1980	5	0.7%
1981	10	1.4%
1982	7	1.0%
1983	16	2.3%
1984	21	3.0%
1985	31	4.5%
1986	26	3.7%
1987	24	3.5%
1988	25	3.6%
1989	39	5.6%
1990	39	5.6%
1991	54	7.8%
1992	34	4.9%
1993	31	4.5%
1994	24	3.5%
1995	10	1.4%
1996	19	2.7%
1997	32	4.6%
1998	17	2.4%
1999	27	3.9%
2000	37	5.3%
2001	39	5.6%
2002	41	5.9%
2003	32	4.6%
2004	12	1.7%
2005	8	1.2%
2006	12	1.7%
2007	3	0.4%
2008	5	0.7%
	<b>694</b>	<b>100.0%</b>

\*Includes companies that were not rated at the time of impairment but had a Best's FSR between Dec. 31, 1977 and the date of impairment. U.S. life/health and property/casualty data.  
Source: A.M. Best Co.

## Exhibit 2 Best's Cumulative Average Impairment Rates U.S. life/health and property/casualty data from 1997 to 2008.

Ratings	Year														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A++/A+	0.06%	0.19%	0.34%	0.51%	0.66%	0.89%	1.12%	1.38%	1.68%	2.00%	2.33%	2.76%	3.22%	3.68%	4.02%
A/A-	0.19%	0.56%	1.04%	1.54%	2.09%	2.68%	3.27%	3.91%	4.49%	5.05%	5.62%	6.13%	6.60%	6.98%	7.35%
B++/B+	0.75%	1.75%	2.79%	4.07%	5.43%	6.62%	7.82%	8.78%	9.55%	10.38%	11.21%	12.08%	12.95%	13.84%	14.46%
B/B-	2.06%	4.23%	6.28%	8.08%	9.93%	11.89%	13.77%	15.41%	17.02%	18.56%	20.13%	21.67%	23.09%	24.37%	25.57%
C++/C+	3.41%	5.73%	8.58%	11.40%	13.70%	16.02%	18.13%	21.01%	23.57%	25.28%	26.66%	27.60%	28.60%	29.68%	30.45%
C/C-	6.02%	9.63%	12.36%	15.12%	18.16%	22.14%	25.54%	28.96%	31.57%	33.85%	36.60%	38.86%	40.82%	42.91%	45.18%
D	7.27%	12.19%	16.99%	21.24%	25.41%	29.50%	32.87%	35.80%	38.31%	40.72%	43.11%	45.05%	46.72%	48.20%	49.48%
Secure	0.25%	0.65%	1.11%	1.62%	2.17%	2.71%	3.27%	3.81%	4.30%	4.81%	5.32%	5.85%	6.38%	6.87%	7.27%
Vulnerable	3.62%	6.47%	9.25%	11.80%	14.32%	16.97%	19.36%	22.66%	24.19%	25.59%	27.43%	29.04%	30.50%	31.88%	33.12%
All	0.69%	1.41%	2.17%	2.94%	3.73%	4.55%	5.33%	6.10%	6.99%	7.50%	8.19%	8.87%	9.54%	10.16%	10.68%

Source: A.M. Best Co.



Exhibit 3

**Best's One-Year Rating Transition Matrix**

U.S. life/health and property/casualty data from 1977 to 2008

Ratings	Rating One Year Later								Secure	Rating One Year Later	
	A++/A+	A/A-	B++/B+	B/B-	C++/C+	C/C-	D	Impaired		Secure	Vulnerable
A++/A+	92.73%	6.82%	0.37%	0.03%	0.00%	0.00%	0.00%	0.06%	98.13%	1.87%	
A/A-	4.06%	91.57%	3.38%	0.56%	0.09%	0.05%	0.11%	0.19%			
B++/B+	0.37%	10.64%	81.56%	5.31%	0.60%	0.31%	0.46%	0.75%	9.90%	90.10%	
B/B-	0.26%	1.08%	14.86%	75.61%	3.94%	0.94%	1.24%	2.06%			
C++/C+	0.23%	0.58%	1.96%	18.24%	66.80%	5.37%	3.41%	3.41%			
C/C-	0.00%	0.61%	0.25%	4.30%	14.86%	66.22%	7.74%	6.02%			
D/NA-7	0.10%	0.64%	1.04%	2.92%	3.02%	3.56%	81.46%	7.27%			

Source: A.M. Best Co.

Exhibit 4

**Impairment List for 2008\***

U.S. life/health and property/casualty data for 2008

Company Name	State of Domicile	Year of Impairment	Type
Firemont Life Insurance Company	CA	2008	LH
Standard Life Insurance Company of IN	IN	2008	LH
Republic American Life Company	TX	2008	LH
Life of America Insurance Company	TX	2008	LH
Legal Mutual Liability Ins Soc of MD	MD	2008	PC

\*Companies with a Best's FSR Dec. 31, 1977 or after, which became impaired in 2007.

Source: A.M. Best Co.