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Default, Transition, and Recovery:

A Global Cross-Asset Report Card Of Ratings Performance In Times Of Stress

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In the wake of the latest financial crisis, there has been much discussion about the performance of credit ratings. We have conducted a comprehensive review of credit ratings—spanning the spectrum of corporate, government, and structured finance debt. This review has demonstrated that ratings issued in the U.S., Europe, Japan, and Australia for nearly all asset classes generally performed as expected, with the exception of ratings on U.S. residential mortgage-backed securities (RMBS) and on collateralized debt obligations backed by structured finance collateral, usually residential securities (SF-CDOs). That is, rated credits withstood the recent financial crisis with results in line with expectations for the economic environment. In contrast, the performance of ratings for U.S. RMBS and SF-CDOs issued from 2005 through 2007 has been disappointing and below our expectations.

Ratings performance should be considered in the context of how Standard & Poor's Ratings Services defines its ratings. Standard & Poor's ratings are:

- Forward-looking assessments of relative creditworthiness.
- Comparable benchmarks across fixed-income asset classes and geographies.
- Based on transparent, publicly available criteria.

With this in mind, Standard & Poor's performance review reaffirms two key attributes of ratings:

- First, even during periods of economic stress, ratings have been and continue to be reasonable predictors of the relative likelihoods of default of different credits. In short, credits with higher ratings generally experience lower default rates. This trend held up across asset classes for the three stressful periods studied (1991, 2001, and 2008/2009), with the exception of RMBS and SF-CDOs during the recent crisis.
- Second, sectors other than RMBS and SF-CDOs did not experience disproportionate downgrades relative to the degree of economic stress. Downgrades typically increase in all sectors during periods of stress, but apart from RMBS and SF-CDOs issued between 2005 and 2007, the pace was not exceptional.

The recent debate has largely focused on the performance of ratings for U.S. RMBS issued from 2005 through 2007. Although Standard & Poor's criteria for rating such securities contemplated substantial declines in home prices, the actual deterioration of the U.S. residential real estate market was more significant than we and others had anticipated and was more severe than we had associated with the contemporaneous macroeconomic stress. In addition, during the financial crisis, defaults and losses on residential mortgage loans displayed unanticipated sensitivity to declining home prices. Together, U.S. RMBS and all CDOs constitute less than 10% of the total debt that Standard & Poor's rates. On balance, the recent performance of ratings, both in the U.S. and globally, for other types of structured finance securities and for government and corporate debt has been in line with performance during the previous two recessions.

Although we believe that the recent underperformance for ratings of U.S. RMBS and SF-CDOs is not reflective of a larger trend, Standard & Poor's has made many changes based on lessons learned from the recent financial crisis. For example, we have made significant enhancements to our criteria for rating U.S. RMBS, CMBS, and CDOs. Overall, the updated criteria should make it more difficult for securities in the sectors that have displayed poor credit performance to receive high ratings.

In addition, Standard & Poor's has incorporated credit stability as an important factor in its ratings criteria. When assigning and monitoring ratings, we consider whether we believe an issuer or security has a high likelihood of experiencing unusually large adverse changes in credit quality under conditions of moderate stress. In such cases, we would assign the issuer or security a lower rating than we would have otherwise.

In the months ahead, there will be a growing need for a clearer understanding of how credit ratings performed during the recent crisis as well as previous ones. The report card that follows provides a more complete picture. This study compares how rated credits in these different areas performed during the recent crisis versus two previous periods of economic stress in 2001 and 1991.

Standard & Poor's credit ratings are designed primarily to be forward-looking assessments of creditworthiness of issuers and obligations. The ratings are not measures of absolute default probability. Creditworthiness can encompass not only likelihood of default, but also payment priority, recovery, and credit stability. However, for the purposes of comparing the performance of ratings across different sectors, observed default rates offer a convenient and compelling measure. A sector that displays roughly similar default rates during periods of similar stress may be viewed as "fulfilling expectations."

The recent period of economic stress was more severe than the two others used in this comparison. Accordingly, one could reasonably expect default rates to have been somewhat higher in 2008-2009 than in 1991 and 2001.

Likewise, comparing downgrade rates offers a view of the relative pace of credit quality deterioration in different sectors. If the pace of downgrades for a sector roughly matches the pace observed in prior periods of similar stress, that too could be viewed as fulfilling expectations. Thus, one might reasonably expect downgrade rates to have been somewhat higher in 2008-2009 than in the comparison periods.

For this study, we reviewed and compared global default rates, downgrade data, and unusually large downward rating migrations over one-year and five-year time horizons during the recent period of economic stress and the two comparison periods (1991 and 2001). We considered both one-year and five-year time horizons to evaluate ratings' ability to differentiate creditworthiness over both the short and long terms.

In constructing the asset classes for this study, we separated SF CDOs from other types of CDOs, such as those backed by corporate bonds or loans (regardless of whether they use actual securities or derivatives). We have excluded non-SF CDOs from the analysis because most of their recent rating actions are the result of criteria changes rather than credit performance deterioration (see "Update To Global Methodologies And Assumptions For Corporate Cash Flow And Synthetic CDOs," published Sept. 17, 2009).

Default Rates

Default rates are defined as the percentage of credits with ratings that are revised to 'D' or 'SD' within the relevant period. For the one-year statistics, we defined cohorts consisting of all credits at each rating level at the start of the specified period. For the latest crisis, we used the one-year period ended in 2008. For the five-year statistics, we included both credits that existed at the start of each measurement period and those that received initial ratings during the measurement period. For the five-year statistics, we used the five-year period ended in 2009. The recent experience of one- and five-year default rates suggests the following:

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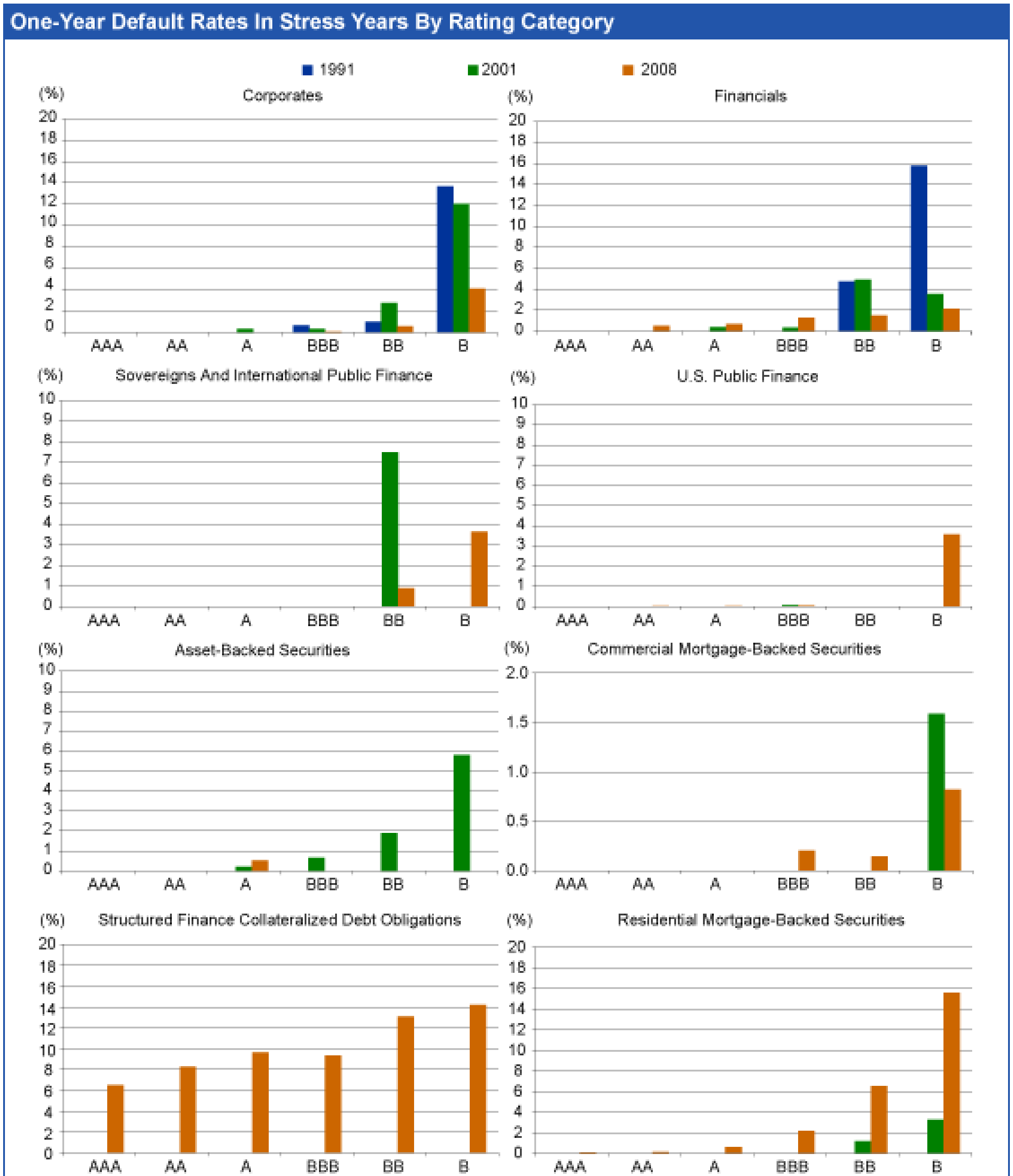
- Defaults on a one-year horizon are concentrated in lower rating categories for all asset classes during all three stress periods studied.
- In comparison with 2001 and 1991, one-year default rates by rating category for the 2008 period remained well within historically observed ranges for the majority of asset classes. The major exceptions were SF-CDOs and RMBS, which had one-year default rates rise to unprecedented levels across most rating categories.
- Among all other asset classes, a few spotty exceptions occurred, but all of these were observed in the lower, speculative-grade tiers, such as the 'B' rating category among sovereigns and international public finance and the 'CCC' category in ABS. The 'B' rating category in U.S. public finance also saw a relative spike, though this reflects only one default and is a reflection of the small population of issuers in that rating category.
- Five-year default rates for periods ending in the key stress years again display a concentration in the lower rating categories.
- Compared with prior stress periods, five-year default rates for the period ended in 2009 were within historically observed rates for all private-sector and most government/municipal ratings. The RMBS asset class experienced exceptionally high rates in this default cycle, with five-year default rates above those recorded in prior stress periods. There were also higher default rates in the lower tiers of the ABS, CMBS, and SF-CDO asset classes.
- The five-year default rates in ABS rose in the period ended in 2009, mainly because of defaults in the manufactured housing segment and some defaults of aircraft-related ABS. Most of these defaults occurred among securities that had initially suffered credit deterioration in the 2001-2003 period. Meanwhile, the spike in five-year default rates in U.S. public finance is explained by the small size of the population for that sector in the 'BB' and 'B' rating categories.

One-year default rates in stress years by asset class and rating category

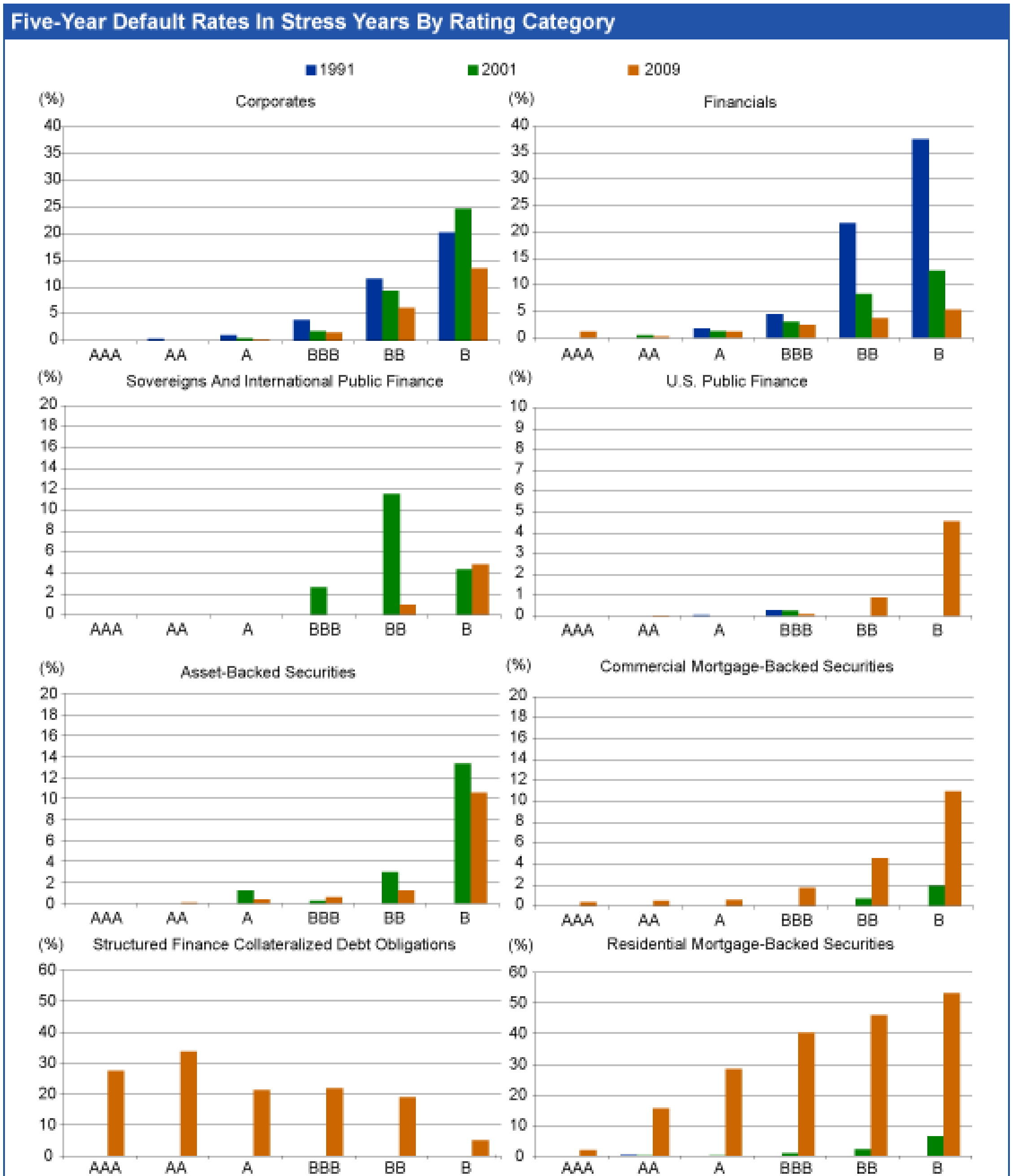
Chart 1



Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro®.

Five-year default rates in stress years by asset class and rating category

Chart 2



Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro®.

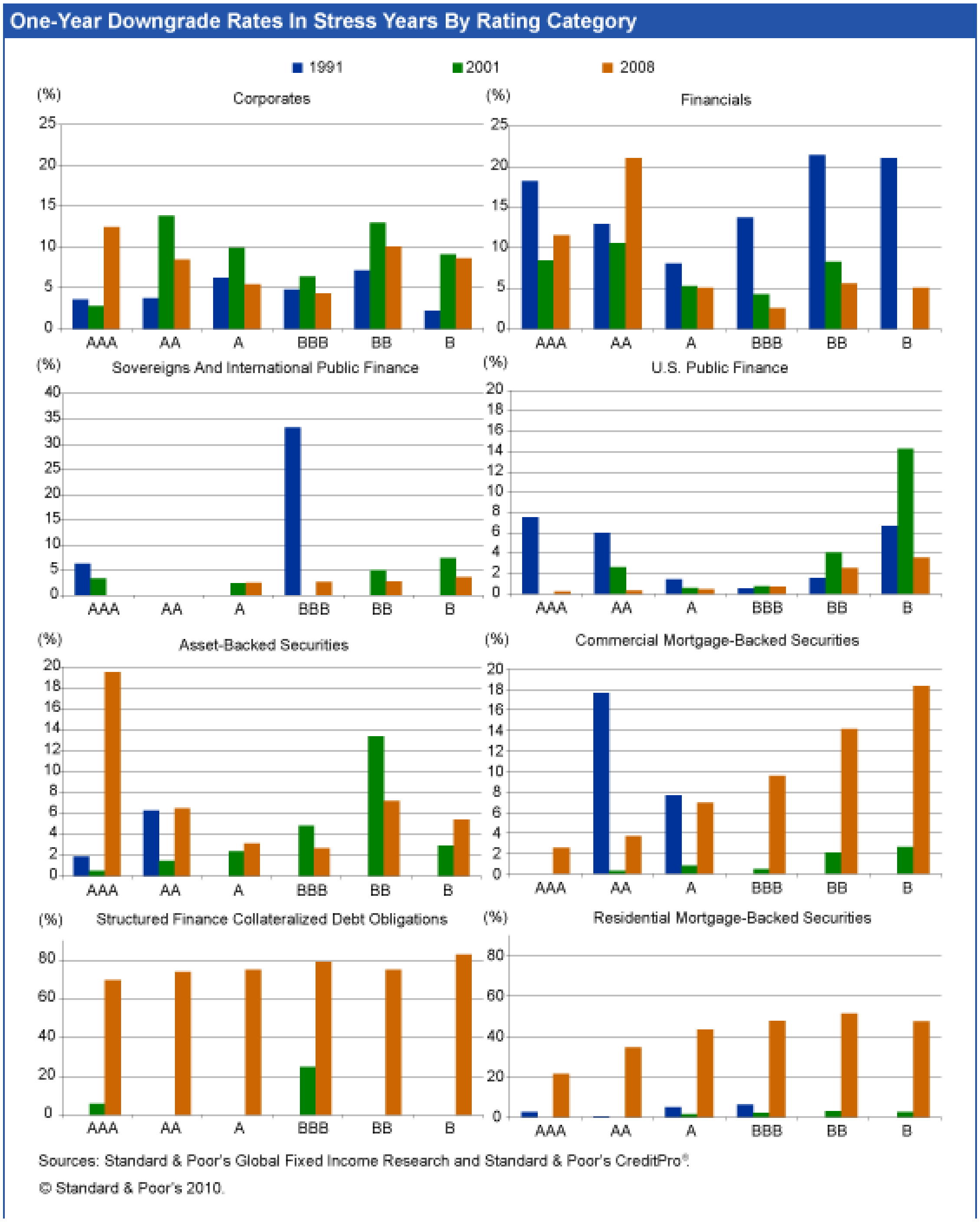
Downgrade Rates

In addition to examining default rates, we surveyed downgrade rates during the same stress periods. Downgrade rates are defined as the percentage of rated issuers (or securities) with ratings that we have lowered within a one-year or five-year period (excluding defaults). As in the default statistics, the five-year downgrade statistics include downgrades of both credits that existed at the start of the measurement period and those that received initial ratings during the measurement period. Downturns tend to be accompanied by higher-than-usual downgrade activity. Comparing the most recent round of stress with prior periods, we note the following:

- Government-related credits displayed particularly low one-year downgrade rates during the most recent period of stress. However, since the end of the one-year study period (2008), a number of high-profile sovereign downgrades have occurred. Those are not reflected in the one-year charts.
- By contrast, RMBS and SF-CDO asset classes experienced the highest one-year downgrade rates among all rating categories. Although Standard & Poor's criteria for rating such securities contemplated substantial declines in home prices, the actual deterioration of the U.S. residential real estate market was more significant than we and others had anticipated and was more severe than we had associated with the contemporaneous macroeconomic stress. The decline in home prices resulted in unprecedented levels of defaults and losses on residential mortgage loans.
- CMBS also saw higher-than-average downgrade rates in the one-year period ended in 2008, particularly in the speculative-grade domain. This was the result of concerns over low debt service coverage ratios, the underperformance of several large assets, and a tighter lending environment that year leading to increased downgrades in the conduit/fusion sector. As a result, Standard & Poor's updated its criteria for this sector (see "U.S. CMBS Rating Methodology And Assumptions For Conduit/Fusion Pools," published June 26, 2009). This criteria change also resulted in further CMBS downgrades starting in the latter half of 2009.
- The 'AAA' category in ABS also saw a substantial proportion of downgrades, largely resulting from downgrades of the bond insurers. The 'AAA' ABS downgrades were concentrated in the student loan, auto loan, and future flow subsectors. Outside the insurance-related ABS downgrades, performance on ABS securities remained strong, particularly at the 'AAA' level (see "U.S. ABS Credit Ratings Would Have Remained Relatively Stable Even Without Additional Support," published on Jan. 25, 2010).
- In line with prior stress periods, there appeared to be no overarching monotonic relationship between rating level and one-year downgrade rates in the majority of asset classes (exceptions are discussed below). There was high downgrade activity in different parts of the ratings spectrum for many asset classes, including corporate nonfinancials, corporate financials, SF-CDOs, RMBS, and CMBS.
- Nevertheless, one-year downgrade rates for corporate financials and nonfinancials remained lower than in prior stress periods in most rating categories (exceptions were 'AAA' corporates and 'AA' financials, though among corporate nonfinancials, the small population size explains the apparent anomaly).
- CMBS and RMBS were the only asset classes to display a clear inverse relationship between the rating level and the one-year downgrade rate, though in both cases, downgrade rates in the latest stress period outstripped prior stress-related volatility.

One-year downgrade rates in stress Years By asset class and rating category

Chart 3



For five-year downgrade rates, we observe the following:

- SF-CDOs and RMBS experienced unprecedented downgrade activity for the five-year period ended in 2009. The downgrade rates among CMBS during the period were driven by the same market factors that affected the 2008 one-year downgrade rates, while also being largely driven by recent criteria changes mentioned above. This has resulted in near uniform downgrade rates among all rating categories within the CMBS sector.

- By contrast, five-year downgrade rates within the corporate universe were high but remained within thresholds observed in prior stress periods. The apparent spike in the downgrade rate for 'AAA' corporate nonfinancials is a result of the small population size for that cohort.
- The five-year downgrade rates for sovereigns and international public finance were higher than normal in the five years ended 2009 because of sovereign downgrades within the Baltics, Iceland, and some of the smaller economies within the Eurozone (including Greece, Ireland, Spain, and Portugal).
- Despite a number of downgrades of high-profile financial institutions, the five-year downgrade rate for financials for the period ended in 2009 was lower than in prior stress periods for all rating categories other than 'AA'. For that category, the five-year downgrade rate for financials was the same as for the five-year period ended 1991 but higher than for the five-year period ended 2001.

Five-year downgrade rates in stress years by asset class and rating category

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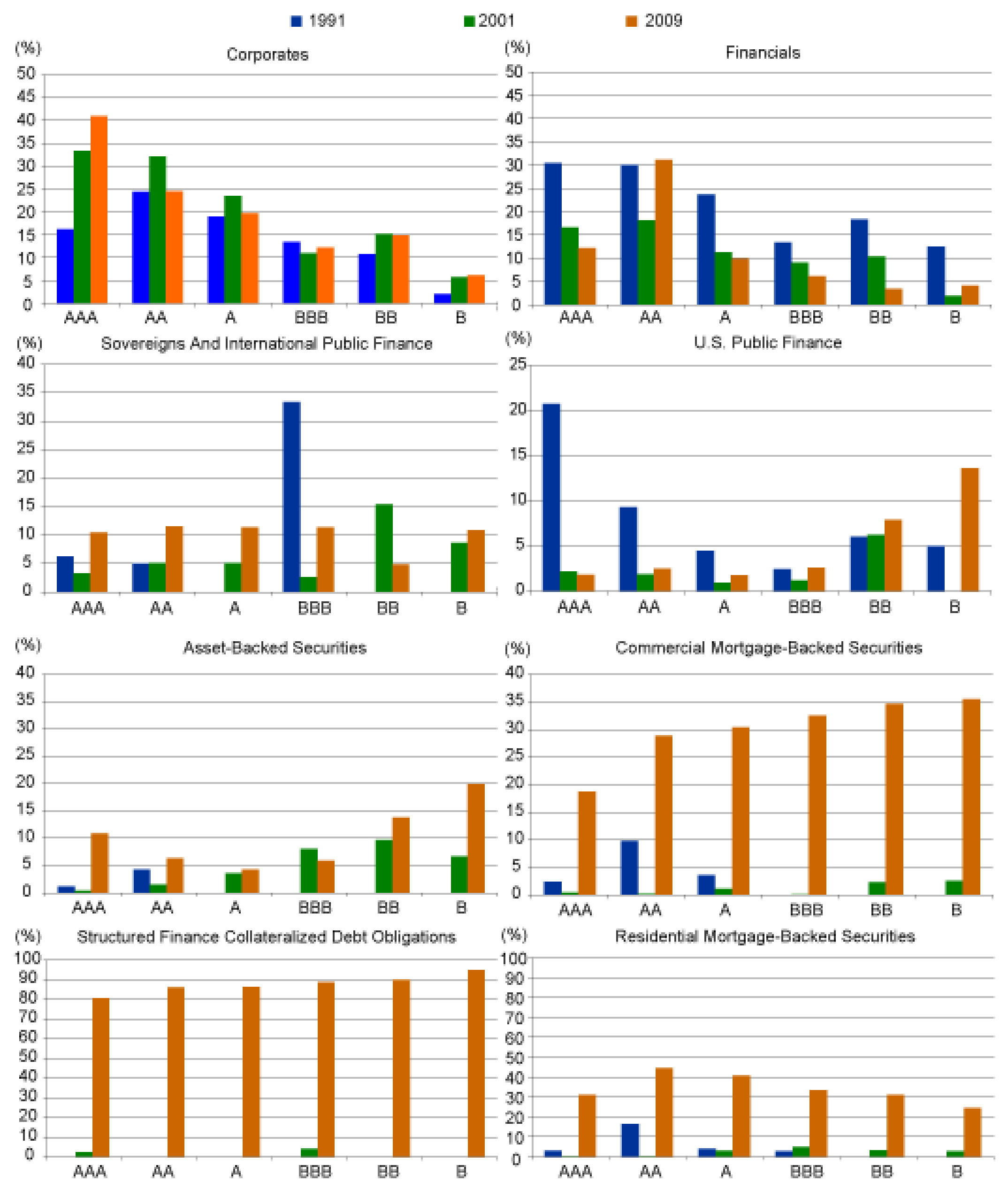
Chart 4

Five-Year Downgrade Rates In Stress Years By Rating Category



Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro®.

"Large" Downgrades

We have explicitly recognized credit stability as an important rating factor in our published criteria (see "Methodology: Credit Stability Criteria," May 3, 2010). If, in our view, an issuer or issue embodies weak stability characteristics, we cap the rating that we will assign. The table shows the maximum projected deterioration associated with each rating level for one-year and three-year horizons under conditions of moderate stress:

Maximum Projected Deterioration Associated With Rating Levels For One-Year And Three-Year Horizons Under Moderate Stress Conditions

	AAA	AA	A	BBB	BB	B
One year	AA	A	BB	B	CCC	D
Three years	BBB	BB	B	CCC	D	D

Source: Standard & Poor's.

Using our focus on high-stress periods, we therefore define large downgrades as downgrades that exceed the maxima in the table. When we apply this definition to the eight sectors, we find that over the one-year period ended in 2008, large downgrades are concentrated primarily in only two sectors: SF CDOs and RMBS. In the other six sectors, downgrades largely remain within the threshold levels, with some sporadic exceptions (such as 'AAA' corporate financials and ABS).

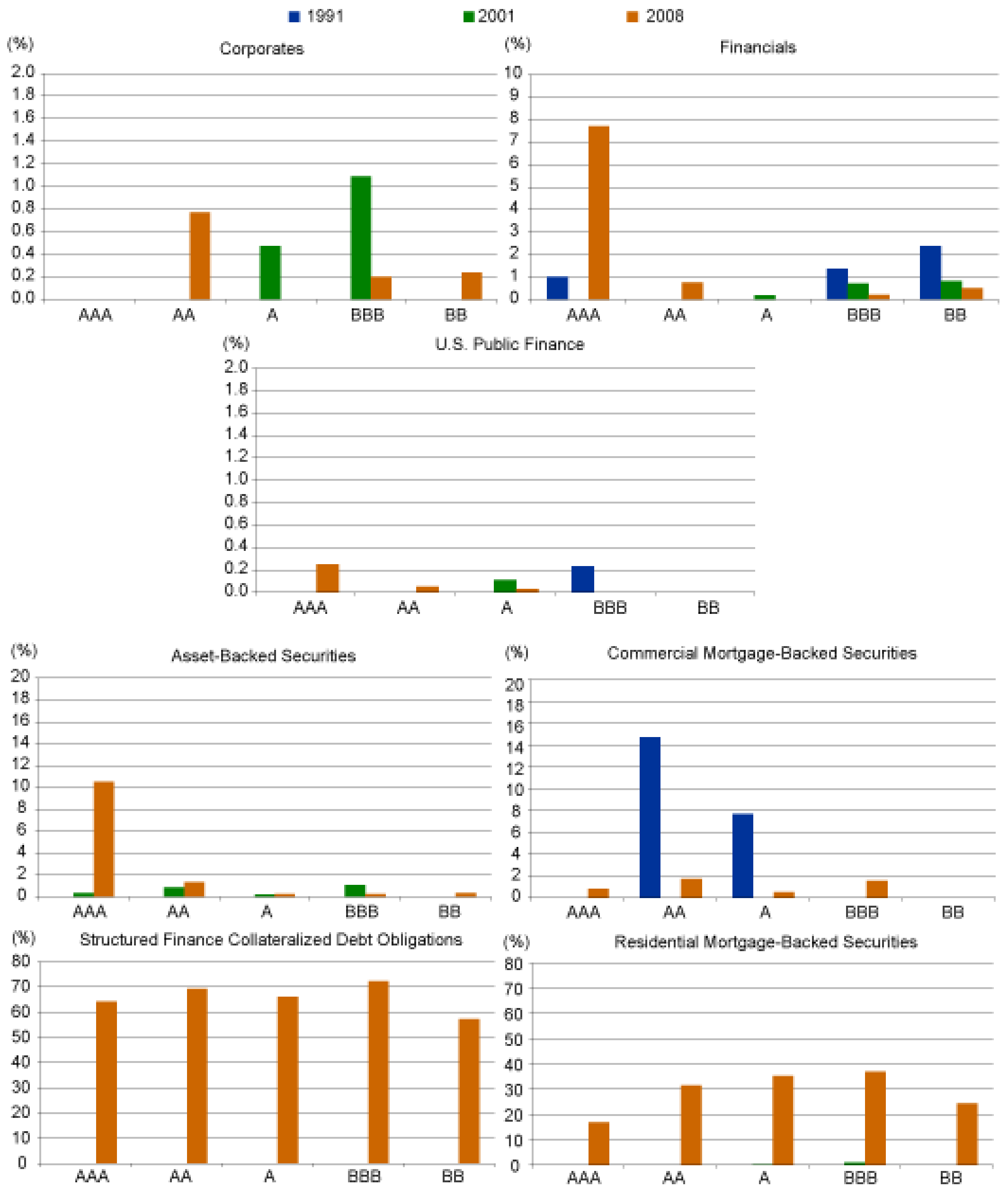
Examining large downgrades for the five-year periods ended in 1991, 2001, and 2009 (using the values in the three-year row of Table 1), we find that SF-CDOs and RMBS still display the highest frequencies of large downgrades. However, CMBS also display higher frequencies of large downgrades in the most recent five-year period than in earlier periods. The frequencies for the ABS sector also are higher than in prior periods of stress, but their absolute level remains quite low.

However, the ABS sector also provides evidence of large downgrade exposure, owing to weakness in the manufactured housing and aircraft-related segments, which were initially hit hard in the 2001 stress period.

One-year large downgrade in stress years rates by asset class and rating category

Chart 5

One-Year Large Downgrade Rates In Stress Years By Rating Category

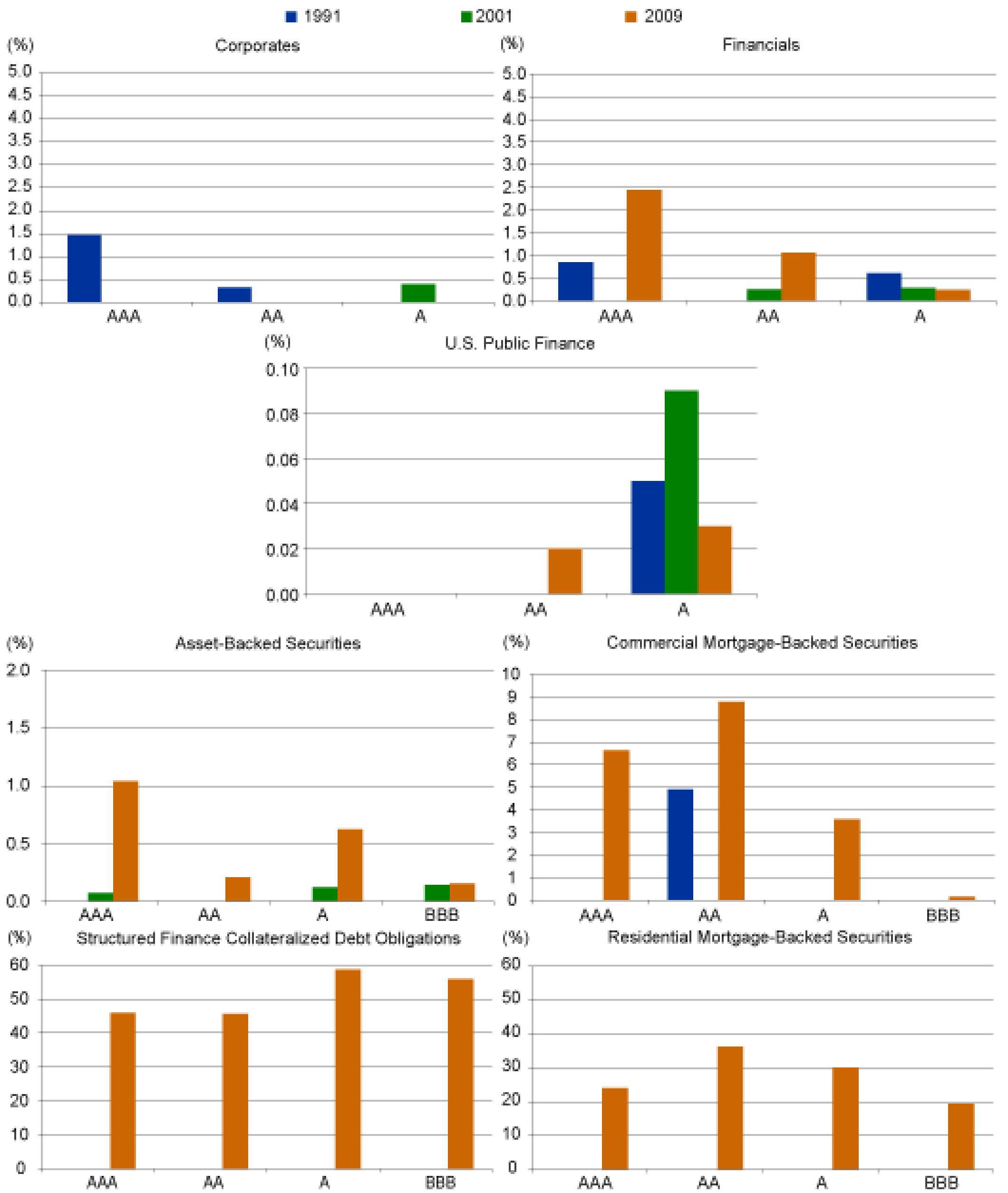


Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro®.

Five-year large downgrade rates in stress years by asset class and rating category

Chart 6

Five-Year Large Downgrade Rates In Stress Years By Rating Category



Sources: Standard & Poor's Global Fixed Income Research and Standard & Poor's CreditPro®.

Contributors: Diane Vazza, Devi Aurora, and Nick Kraemer.

Related Research

- Another Perspective On Rating Comparability And Performance, published April 9, 2010.
- Big Changes In Standard & Poor's Rating Criteria, published Nov. 3, 2009.
- 2009 Annual Global Corporate Default Study And Rating Transitions, published March 17, 2010.
- U.S. Public Finance Defaults And Rating Transition Data: 2009 Update, published March 3, 2010.
- Sovereign Defaults And Rating Transition Data, 2009 Update, published March 17, 2010.
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- 2009 International Local And Regional Governments Default And Transition Study, published March 19, 2010.
- Methodology: Credit Stability Criteria, published May 3, 2010.
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