NOMURA

Temporal Aspects of CMBS Downgrades and Surveillance

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I. Introduction

In real estate some folks say that location is everything. Others say timing is everything. In the context of CMBS credit migrations, timing is an important part of the story. We examined some of the timing aspects of CMBS downgrades and surveillance and we found some interesting results. For example, we observed the following:

- More often than its competitors, Moody's has been the first to respond to deteriorating CMBS credit quality with watchlistings and downgrades.
- Most CMBS downgrades are not preceded by watchlistings.¹ Moody's and S&P watchlisted roughly 40% of the CMBS that they ultimately downgraded, while Fitch watchlisted only 21%.
- For downgraded CMBS that did spend time on a watchlist before being downgraded, the length of time on watchlist status varied considerably. However, watchlistings by S&P show the greatest tendency to be either very short or very long.
- While ratings decline gradually on most downgraded CMBS, there is a notable share of cases
 where ratings have declined very quickly. S&P's CMBS ratings were slightly over-represented
 among that fast-declining group.

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¹ In this report, we use the term "watchlisting" to describe the status of a security that has been officially placed under review by a rating agency. S&P uses the term "CreditWatch" to describe such status. Moody's uses both the term "under review" and the term "watchlist." Fitch uses the term "Rating Watch."

The foregoing observations, and others, have practical implications for CMBS investors. CMBS investors can try to tailor their responses to deteriorating credit situations by understanding which rating agencies act most quickly, how long watchlistings tend to last, and how quickly ratings decline. In addition, CMBS investors can use the study's results to help develop expectations about how rating agencies are likely to act in developing situations. The fact that Moody's is usually the first to act suggests that watching Moody's for signals of concern about a particular credit may be a beneficial strategy.

The remainder of this paper is organized as follows: Part II provides background on the study. Part III details our results. Part IV discusses practical implications. Part V concludes.

II. Background on the Study

This report builds on research that we started last year. In December 2002, we published a report titled "CMBS Credit Migrations." That report focused on the magnitude of CMBS credit migrations. We found that CMBS from certain types of deals or from certain vintages displayed greater credit volatility than did other CMBS. We also found that CMBS that carried ratings from certain combinations of rating agencies have experienced markedly differing degrees of credit volatility.

This study focuses on the *timing* issues related to adverse CMBS credit migrations. One dimension of timing considerations concerns the relative speed with which the rating agencies respond to deteriorating credit quality in CMBS. When the credit quality of a CMBS declines materially, the rating agencies that rated it can be viewed as the contestants in a race to detect, analyze, measure, and announce the effects of the deterioration. By viewing many repetitions of such races, we have drawn inferences about the relative sensitivity and responsiveness of the rating agencies' CMBS monitoring efforts.

A second dimension of timing considerations concerns the length of watchlistings on CMBS. We examined the length of watchlistings on CMBS by each of the rating agencies. This too lends insight into the responsiveness and timeliness of the monitoring processes.

A third dimension of timing considerations concerns the speed at which CMBS ratings decline. We measured the speed of rating declines in terms of "notches per year." For each rating agency that rated a CMBS we calculated a "lifetime credit speed" (LCS) and a "maximum credit speed" (MCS). We calculated each LCS by dividing the magnitude of the total decline (expressed in notches) by the time elapsed between the initial rating on the security and the final rating action (expressed in years). We also calculated a credit speed associated with each individual downgrade action: the magnitude of the downgrade (in notches) divided by the time elapsed since the prior rating action. Among the rating actions on a given security by a particular rating agency, the one with the highest speed determines the MCS for that security-rating agency combination.

Our sample for this study consisted of 335 CMBS tranches that have been downgraded. The sample included CMBS that had been issued in the period from 1992 through 2002 and that had been downgraded at some point during that period. Our sample included the 172 downgraded CMBS tranches identified in our earlier study, which had a cut-off date at the mid-year point of 2002. The present study includes an additional 163 CMBS tranches that were downgraded in the latter half of last year.

As in our prior study, we excluded all tranches from deals done by the GSEs as well as all other unrated tranches. In addition, we excluded 172 tranches from deals done by the Resolution Trust Corporation (RTC) during the period 1992 through 1995. Because of their unusual characteristics, we believe that the RTC deals were exceptional and would bias the study's results. Deals like the ones from the RTC are mostly absent from today's CMBS landscape.

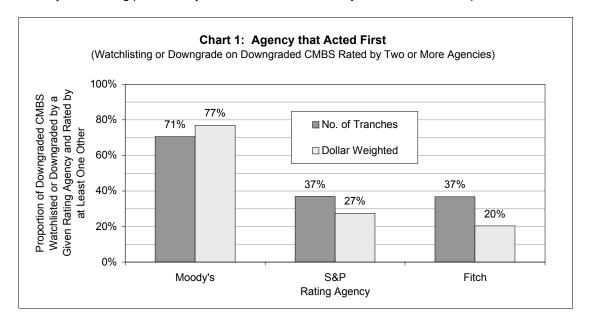
Our sample did *not* include CMBS tranches that were watchlisted but that had never been downgraded. Accordingly, we could not explore all the both sides of the signaling power of watchlistings (*i.e.* false positives as well as false negatives).

III. Results

A. The Race to Detect, Measure, and Announce

1. Who's the First to Act (Watchlist or Downgrade)?

Which rating agency is the most responsive to deteriorating credit quality in CMBS? One way to approach that question is to consider how frequently each rating agency acts before the others by downgrading a bond or placing it on a watchlist. The relative swiftness of a rating agency's actions arguably reflects the sensitivity and timeliness of its monitoring process. Chart 1 below suggests that Moody's monitoring process may be more sensitive and timely than those of its competitors.



The height of each bar in the chart indicates each rating agency's success in acting before its competitors with respect to CMBS that ultimately were downgraded. For example, the percentage reflected by the left bar of the first pair is calculated as: (1) the number of times that Moody's was the first to act on CMBS that were rated both by it and by at least one other agency, divided by (2) the total number of downgraded CMBS that were rated by Moody's and at least one other agency. The right bar of each pair shows the results on a dollar-weighted basis by original principal amount. For purposes of the chart, an agency can be the first to act by either (A) downgrading a bond or (B) placing it under review for possible downgrade (*i.e.*, watchlisting it).

For 71% of the downgraded CMBS tranches rated by Moody's and at least one other agency, Moody's was the first to act. In comparison, S&P and Fitch were the first to act in much smaller proportions of cases involving bonds rated by each of them (respectively) and at least one other agency.

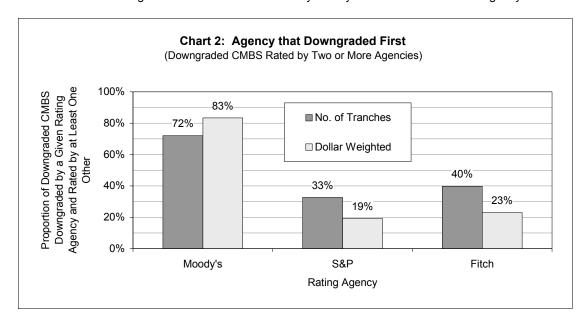
The 2002 wave of downgrades and watchlistings related to terrorism insurance had a noticeable impact on the results shown above. Moody's and Fitch watchlisted and downgraded certain CMBS because of terrorism insurance concerns. Moody's acted on the issue before Fitch did. S&P did not take any action in response to the issue. Removing terrorism insurance-related rating actions from the population produces results that are somewhat less skewed toward Moody's. The following table shows the results after removing those rating actions:

| Agency that Acted First – Ex Terrorism Insurance-Related Rating Actions (Watchlisting or Downgrade on Downgraded CMBS Rated by Two or More Agencies) | | | | | |
|--|---------|-----|-------|--|--|
| Proportion of Downgraded CMBS Watchlisted or Downgraded by a Given Rating Agency and Rated by at Least One Other | Moody's | S&P | Fitch | | |
| No. of Tranches | 63% | 43% | 43% | | |
| Dollar-Weighted | 52% | 54% | 29% | | |

2. Who's the First to Downgrade?

Another way to approach the question of rating agency responsiveness is to consider how frequently each rating agency *downgrades* before the others when a bond is rated by more than one of them. The relative swiftness of a rating agency's downgrades reflects not only the sensitivity and timeliness of its monitoring process, but also its willingness to act firmly. By this reckoning as well, Moody's appears to beat its rivals.

The height of each bar in Chart 2 indicates each rating agency's success in downgrading before its competitors with respect to CMBS that ultimately were downgraded. For example, the percentage reflected by the left bar of the first pair is calculated as: (1) the number of times that Moody's was the first to *downgrade* on CMBS that were rated by it and at least one other agency, divided by (2) the total number of downgraded CMBS that were rated by Moody's and at least one other agency.



For 72% of the downgraded CMBS tranches rated by Moody's and at least one other agency, Moody's was the first to downgrade. In comparison, S&P and Fitch were the first to downgrade in smaller proportions of cases involving bonds rated by each of them (respectively) and at least one other agency.

As with the results shown in Chart 1, those shown in Chart 2 reflect the impact of terrorism insurance-related downgrades. As before, removing those downgrades from the population produces results that are less skewed toward Moody's. The following table shows the results after removing terrorism insurance-related downgrades:

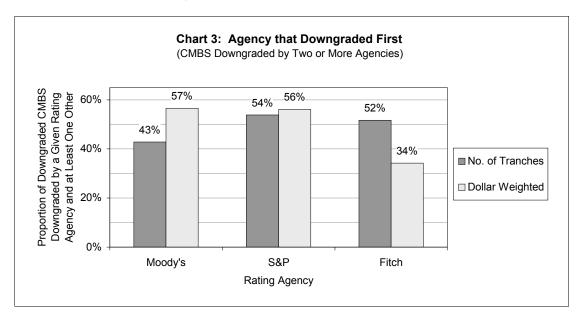
| Agency that Downgraded First – Ex Terrorism Insurance-Related Downgrades (Downgraded CMBS Rated by Two or More Agencies) | | | | | |
|--|---------|-----|-------|--|--|
| Proportion of Downgraded CMBS Downgraded by a Given Rating Agency and Rated by at Least One Other | Moody's | S&P | Fitch | | |
| No. of Tranches | 63% | 40% | 45% | | |
| Dollar-Weighted | 51% | 53% | 31% | | |

Chart 2 includes instances where only one rating agency may have downgraded a bond. Thus, some of the times when a rating agency was the first to downgrade, it was the only one to do so. Therefore, differences in the proportion of times that each rating agency is the first to downgrade may simply reflect different opinions about credit quality, rather than differences in responsiveness and sensitivity. Arguably, we can gain further insight by examining instances where at least two rating agencies downgraded a security.

3. Who Downgraded First, Part II (When Two or More Agencies Downgrade)?

Considering only CMBS tranches that were downgraded by at least two rating agencies, no single agency stands out as consistently being the first to downgrade. In cases where the rationale to support a downgrade probably was most evident, all three rating agencies appear to act with relatively equal swiftness. This result does not necessarily conflict with those described above: Fitch and S&P may be more hesitant than Moody's to downgrade unless they have overwhelming evidence to support their actions; Moody's may be willing to act based on more subtle clues.

Chart 3 below shows the results. Chart 3 is similar to the previous charts except that only CMBS that were downgraded by two or more rating agencies are included in the underlying sample. The importance of this restriction is that it limits the population to CMBS with respect to which there was a consensus of credit quality deterioration. In such cases, Fitch was the first to downgrade on 52% of the CMBS downgraded both by it and at least one of its competitors. Comparatively, S&P was the first 54% of the time and Moody's was first 43% of the time.



Terrorism insurance-related downgrades had particularly a strong effect on the results shown in Chart 3. Moody's and Fitch both acted on the issue, so the affected securities qualify for inclusion in the underlying population. Additionally, Moody's was the first to act. Thus, removing all the terrorism insurance-related downgrades shrinks Moody's proportion the most. The table below summarizes the results excluding terrorism insurance-related downgrades:

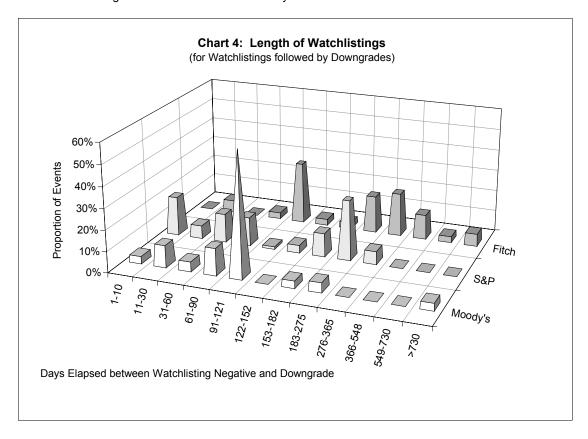
| Agency that Downgraded First – Ex Terrorism Insurance-Related Downgrades | | | | |
|---|---------|-----|-------|--|
| (CMBS Downgraded by Two or More Agencies) | | | | |
| Proportion of Downgraded CMBS Downgraded by a Given Rating Agency and at Least One Other | Moody's | S&P | Fitch | |
| No. of Tranches | 23% | 83% | 56% | |
| Dollar-Weighted | 42% | 54% | 47% | |

Removing terrorism insurance-related downgrades changes the results substantially. Now Moody's appears slower than it did before, and S&P appears faster. As before, we suspect the explanation is that S&P is swifter to act when a credit deterioration is clear-cut (*i.e.*, discernable and *material* to at least two rating agencies), while Moody's remains the quicker to act in less-clear-cut circumstances.

B. Watchlistings

1. How Long Did It Take to Downgrade?

Examining the length of watchlistings lends further insight into the agencies' diligence and responsiveness in monitoring developments and in resolving uncertainties. Chart 4 below shows distributions of how long watchlistings lasted for CMBS that were ultimately downgraded after being on a watchlist. That is, only watchlistings that resulted in downgrades are included. The series of bars for each rating agency is a histogram showing the proportion of watchlistings that fall into each interval labeled on the front axis. For example, 58% of Moody's CMBS watchlistings that ultimately resulted in downgrades lasted from 91 to 121 days.



It is notable that both Moody's and Fitch downgrade a substantial proportion of CMBS slightly more than three months after having placed them under review. This may reflect rating agency internal policies designed to avoid "stale" watchlistings.

The "ideal" length of a watchlisting arguably is in the range of two to three months. A length in that range allows a watchlisting to serve its purpose as a warning of a potential rating action, while not engendering an enduring cloud of uncertainty that inhibits liquidity for a bond. If a rating agency downgrades a bond immediately after having placed it under review, the warning value of the watchlisting is eliminated. Conversely, if a watchlisting lasts more than six months, it may well be because the rating agency has failed to follow-up on its review of the credit.

The results shown in Chart 4 indicate that Moody's watchlistings rarely lasted longer than six months on bonds that the agency ultimately downgraded. By the six month mark, 92% of the Moody's CMBS watchlistings ultimately destined to become downgrades had reached their destination. For each of

S&P and Fitch, the proportions of such watchlisting resolved by the six-month mark were only 66% and 43%, respectively. This observation suggests that S&P and Fitch tended to be slower than Moody's in converting watchlistings into downgrades. This observation further reinforces the notion that Moody's CMBS monitoring process may be more sensitive and responsive than its competitors'.

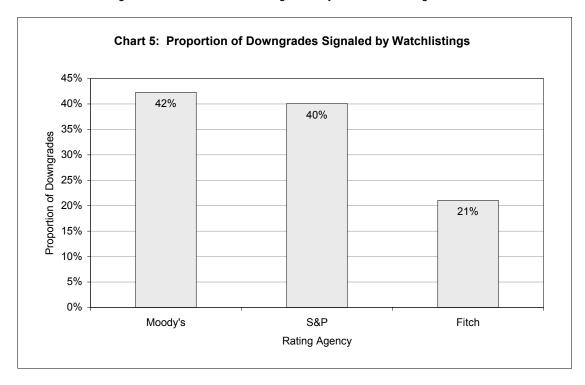
Interestingly, the results shown in Chart 4 may have contrary implications as well. For example, 24% of S&P's CMBS watchlistings ultimately destined to become downgrades actually become downgrades within one month. Does this mean that S&P is extremely responsive and sensitive to credit developments some of the time? Or does it mean that S&P is sometimes late in watchlisting, so that by the time it watchlists, the downgrade is already imminent? We're not really sure.

Two factors complicate the issue. First, a portion of the longest watchlistings are attributable to lengthy watchlistings of the corporate ratings of lessees in credit-tenant lease deals. S&P in particular ascribes some of its longer watchlistings to this cause. Second, some of Fitch's lengthy watchlistings are attributable to interest shortfalls. Fitch's practice is to place a security on watch during the pendency of an interest shortfall, provided that it expects the shortfall ultimately to be cured. These factors create noise that further clouds broad generalizations drawn from aggregate data.

2. What Proportion of Downgrades Did Watchlistings Signal?

Whether or not a watchlisting precedes a downgrade is significant because watchlistings give investors warning of potential downgrades. The proportion of a rating agency's downgrades that follow watchlistings indicates the rating agency's proficiency at providing useful warnings.

Chart 5 below shows the proportion of CMBS downgrades that were signaled by watchlistings for each agency. Each of Moody's and S&P provided warning through watchlistings on roughly 40% of their CMBS downgrades. Fitch used watchlistings on only 21% of its downgrades.



Overall, the rating agencies use watchlistings to signal fewer of their downgrades than investors might like. However, even though market participants might hope for greater warning from all three, S&P and Moody's seem to have had the edge over Fitch on this score.

C. How Fast Do CMBS Ratings Fall?

CMBS ratings can fall quickly or slowly. For investors, slow rating changes are usually preferable. Therefore, we examined the rates at which CMBS ratings declined, both over their lives and in individual downgrades.

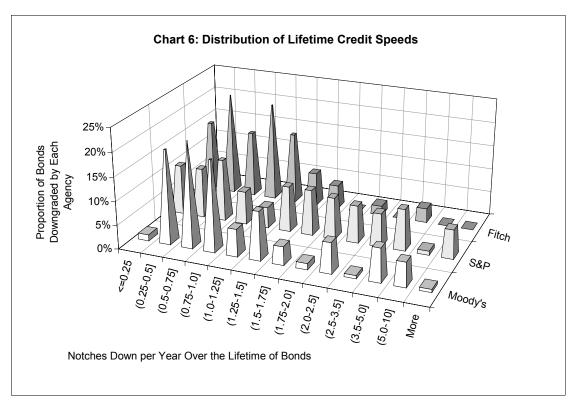
1. Lifetime Credit Speeds (LCSs)

We found that S&P's CMBS ratings had a slightly greater tendency to fall quickly over a security's life than do CMBS ratings from Moody's or Fitch.

For each CMBS rated by a rating agency, we calculated a "lifetime credit speed" or LCS. An LCS equals (1) the cumulative number of notches by which the subject bond was downgraded by the rating agency, divided by (2) the cumulative number of years elapsed between the rating agency's initial rating on the bond and the agency's final downgrade action. The LCS calculation excludes watchlistings and rating withdrawals.

All other things being equal, investors generally should prefer a lower LCS over a higher one. A lower LCS means that the rating is moving more slowly over time. A lower LCS on a CMBS generally means that an investor will have time to manage his exposure to a gradually deteriorating credit (*e.g.*, by selling the instrument).

Chart 6 below shows the distributions of LCSs that we observed for each rating agency. Each series in the chart is a histogram. For example, the tallest column in the front series shows that 22% of the CMBS downgraded by Moody's had Moody's-LCSs in the range of 0.5 to 0.75 notches per year. The sample for each of the histograms includes only the CMBS downgraded by the related rating agency. For example, the population associated with the front-most series on the chart includes only CMBS downgraded by Moody's; it does not include Moody's-rated CMBS that were downgraded only by other rating agencies. Thus, each histogram shown in Chart 6 reflects the distribution of LCS for securities actually downgraded by the subject rating agency.



Possible explanations for a high LCS on a CMBS include the following:

- Exogenous forces applied continuing pressure on the bond's underlying collateral over the long term. The result was a steady stream of downgrades over the bond's lifetime.
- 2. The rating agency made a sudden downgrade that was so severe that even when averaged over the bond's life, the result was an unusually high credit speed.
- The rating agency's original assessment of a bond's underlying collateral was inaccurate, producing a series of severe downgrades over the bond's life.

A fourth possible explanation bears special mention: The conversion of a private rating to a public one can cause a bond's LCS to be extremely fast. We based our LCS calculations on public ratings only. CMBS from two particular deals (MLMI 1998-C3 and CCMSC 2000-1) have a noticeable impact on the LCS distribution of CMBS downgraded by S&P. Tranches from those two deals represent all the ones that had S&P-LCSs greater than ten.² But for those deals, the distribution of LCSs for CMBS downgraded by S&P would have a less pronounced positive skew.

The distribution of LCSs for a rating agency can be used to infer how volatile the agency's CMBS ratings tend to be over the long run. For example, Chart 6 shows that 6% of the CMBS downgraded by S&P had S&P-LCSs greater than 10 notches per year. Less than 1% of the CMBS downgraded by Moody's had a Moody's-LCS greater than 10 and no CMBS had a Fitch-LCS greater than 10. Similarly, 22% of the CMBS downgraded by S&P had S&P-LCSs greater than 2.5 notches per year. In contrast, only 13% of the CMBS downgraded by Moody's and just 3% of those downgraded by Fitch displayed LCSs greater than 2.5. This suggests that, overall, S&P's ratings on CMBS have tended to show higher frequencies of undesirably fast declines than CMBS ratings from Moody's and Fitch.

A potential weakness in our calculation of LCSs for each security is that it ignores possibly long periods of stability following the last recorded rating action on a bond. However, the alternative would have been to calculate lifetime credit speeds as of an arbitrary date (e.g., 31 Dec 2002), at which point some of the CMBS tranches in the sample could have been poised for further adjustments to their ratings. In the end, we chose the approach with the clearest markers of credit quality and decided to accept the approach's high-side bias as a factor limiting its utility as an absolute measure. That trade-off was acceptable because our primary use of LCS is for a relative comparison among the rating agencies.

2. Ratings Fall Faster for Certain Types of Deals

We also examined how LCSs vary for CMBS from different types of deals. We divided CMBS deals into five categories: (1) conduit, (2) single-borrower lease-backed, (3) large loan, (4) single-borrower non-lease backed, and (5) seasoned loans. We considered the distribution of LCSs for each rating agency on all the downgraded CMBS that it had rated from deals of each type (*i.e.*, 15 distributions = three rating agencies times five types of deals). We included in each distribution all downgraded CMBS that a given rating agency had rated, even if the security was downgraded only by another agency.

The results are shown in Chart 7. Each bar in the chart shows the distribution of LCSs for downgraded CMBS tranches from a different type of deal and rated by a particular agency. Within

According the S&P's website, S&P assigned ratings to MLMI 1998-C3 classes F, G, H, and J on 28 Mar. 2002

private ratings on 8 Mar. 2000.

and downgraded the classes less than two weeks later on 9 Apr. 2002. However, according to conversations with a representative of the rating agency, those bond's initially received private ratings on 28 Dec. 1998. The private ratings seem to have been converted to public ratings in anticipation of the downgrades. Similarly, according to S&P's website, S&P assigned ratings to CCMSC 2000-1 classes J, K, and L on 13 Sep. 2002 and downgraded the bonds six days later on 19 Sep. 2002. An S&P representative indicated that the securities initially received

each bar, the different segments correspond to different percentile ranges in the distribution. The black dots show the median LCS in each distribution. The numbers in parentheses in the x-axis labels show the number of CMBS tranches included in the sample associated with the corresponding bar. Thus, the second bar reflects the distribution of LCSs for 96 CMBS tranches. That bar shows that downgraded CMBS from conduit deals displayed a notably wide distribution of S&P-LCSs. The lower bound of the top (dark grey) segment of the bar indicates that the seventy-fifth percentile of the distribution is at an LCS of roughly one-and-a-half notches per year. This means that one-fourth of the conduit CMBS rated by S&P had LCSs greater than one-and-a-half notches per year. The upper bound of the top segment of the second bar indicates that the ninetieth percentile of the distribution is at an LCS of roughly four notches per year. This means that one-tenth of the conduit CMBS rated by S&P had LCSs greater than four notches per year.³

From the deal-type perspective, we found a few interesting results: First, a notable proportion of Moody's-rated CMBS from single-borrower non-lease-backed deals displayed very high lifetime credit speeds. As shown by the tenth bar on Chart 7, more than 10% of such CMBS displayed Moody's-LCSs greater than five-and-a-half notches per year.

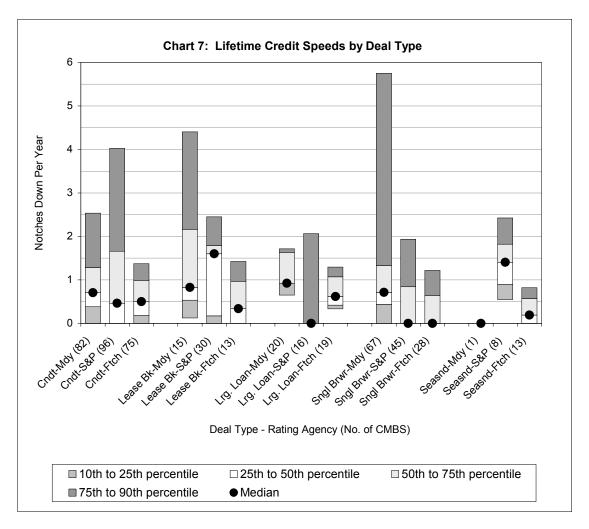
Second, more than 25% of Moody's-rated CMBS from the single-borrower lease-backed category display Moody's-LCSs in excess of two notches per year. Although, this result is based on a sample of only 15 deals, it seems to confirm the findings of our *CMBS Credit Migrations* study. There, we found that CMBS from the single-borrower lease-backed category displayed exceptionally weak credit performance.

Third, within all but one deal type, the distribution of Fitch-LCS displayed the least dispersion. Fitch CMBS ratings had the lowest propensity to display undesirably high LCSs.

Fourth, the medians of some of the distributions had values of zero or close to zero. This was caused by the inclusion in each distribution of all downgraded CMBS rated by the subject rating agency, even if a security's downgrade came from another agency.

(10)

³ The two deals described in note 2 account for most of the S&P-rated conduit tranches that had S&P LCSs greater than four notches per year.



3. Maximum Credit Speeds (MCSs)

In addition to considering LCS, investors may be concerned about the peak speed at which ratings decline at any point during a bond's life. We examined the peak speeds of credit deterioration by measuring the "maximum credit speed" or MCS for each rating on each downgraded CMBS. MCSs may be important to investors because high MCSs may reflect the occurrence of unwanted credit surprises. A high MCS can mean that a CMBS experienced a sudden credit shock that caused a rating agency to lower the bond's rating shortly after an earlier rating action.

For each downgrade action on a CMBS, we calculated the "credit speed" as the number of notches by which the subject bond was downgraded, divided by the number of years elapsed since the previous downgrade action (or the initial assignment of the rating in the case of the first downgrade) by the same rating agency. For each CMBS and rating agency, the MCS is the highest credit speed from among all the downgrades taken by the agency on the bond. As with LCSs, we measured MCSs in terms of "notches per year." Also as with LCSs, the MCS calculation excludes watchlistings and rating withdrawals.

Most downgraded CMBS displayed MCSs from each of the rating agencies of less than five notches per year. That represents a speed that investors can work with. However, a notable proportion of downgraded CMBS has MCSs higher than 20 notches per year. In fact, some had MCSs in the hundreds. Those observations generally relate to instances where a rating agency took multiple downgrade actions on the same security in quick succession; a one notch downgrade that occurs the day after the prior rating action will have a credit speed of 365 notches per year. Overall, compared to the results for its competitors, a somewhat greater proportion of CMBS downgraded by S&P displayed very high MCSs.

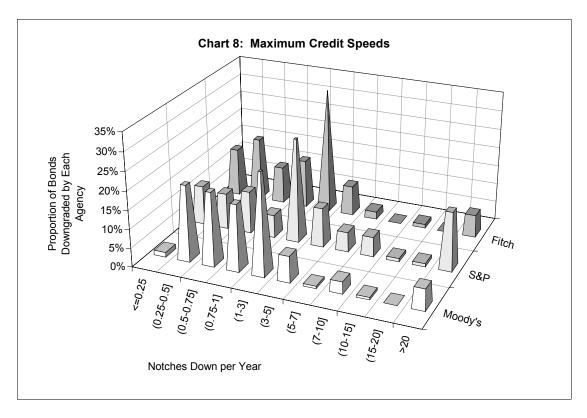


Chart 8 shows the distribution of MCSs for CMBS downgraded by each of the rating agencies. Each of the three data series on the chart shows the distribution of MCS for bonds downgraded by the corresponding rating agency. For example, the tall column in the front row shows that roughly 26% of the CMBS downgraded by Moody's had a Moody's-MCS in the range of one to three notches per year. The last (right-most) column in the front row shows that fewer than 6% of the CMBS downgraded by Moody's had a Moody's-MCS higher than 20 notches per year. The last column of the second row shows that roughly 15% of the CMBS downgraded by S&P had an S&P-MCS higher than 20 notches per year.

IV. Practical Implications

The results described above have several practical implications for CMBS investors. First, most CMBS downgrades are not signaled in advance by watchlistings. This suggests that CMBS investors can reap advantages from their own monitoring efforts by responding to indicia of deteriorating credit before the rating agencies act. As shown in Chart 5, none of the rating agencies signaled more than half of its CMBS downgrades with prior watchlistings. Fitch, in particular, signaled only a very small proportion.

Second, for CMBS watchlistings by Moody's and Fitch, investors should expect that, if a downgrade follows, it will most likely come between three and four months after the watchlist action (Chart 4). For S&P watchlistings, a downgrade is likely to come either earlier or later. Investors, therefore, can manage the timing of their reactions to CMBS watchlistings by the different rating agencies.

Third, investors can devote somewhat extra energy to monitoring CMBS that carry ratings from S&P. By a small margin, S&P's ratings on CMBS show the greatest tendency to move quickly, both over the long run (LCS, Chart 6) and in single rating actions (MCS, Chart 8). Investors may also benefit

(12)

⁴ Removing MLMI 1998-C3 and CCMSC 2000-1 from the population reduces the proportion of the CMBS downgraded by S&P that had MCSs greater than 20 from 15.13% to 9.82%. See note 2, *supra*.

from directing extra attention to Moody's-rated CMBS from single-borrower non-lease-backed deals and from single-borrower lease-backed ones (Chart 7).

Fourth, a CMBS investor can devote extra energy toward maintaining frequent interaction with Moody's because of that agency's tendency to be the first to act in watchlisting or downgrading CMBS (Charts 1 and 2).⁵ To the extent that an investor ever is able to "sniff out" a rating agency's intentions through casual inquiries (*i.e.*, by sensing hints before formal action is taken with watchlisting or downgrading), the benefit of doing so is likely to be greatest with respect to Moody's.

V. Conclusion

Clearly, timing is not everything. But, it sure counts for something in the context of CMBS downgrades and surveillance. Some of our key findings included the following:

- Moody's tends to be the first rating agency to act in watchlisting or downgrading CMBS.
- Watchlistings that convert to downgrades by Moody's or Fitch tend do so in three or four months. In contrast, S&P's resolution of such watchlistings tends to take longer or shorter.
- While the vast majority of downgraded CMBS experience gradual declines in the ratings, the minority that display unusually rapid declines includes a disproportionate representation of those rated by S&P.

The result discussed above prompted several additional questions, some of which will provide future grist for our research mill. For example, based on what we observed, we would like to explore some of the following questions:

- What proportion of watchlistings results in downgrades, and what proportion results in rating confirmations? To tackle this question, we will need to obtain data on watchlistings that did not result in downgrades.
- Do CMBS tranches at different rating levels tend to display faster or slow migration speeds?
- What proportion of downgraded CMBS was subjected to multiple downgrades by the same rating agency? By different rating agencies?
- For downgraded CMBS rated by at least two rating agencies, what proportion was downgraded by at least two rating agencies?
- For CMBS downgraded by at least two rating agencies, how much time elapsed between the downgrade by the first rating agency and the downgrade by the second?

While we have hardly answered all the questions, we believe that we have supplied some food for thought. Armed with the concrete results presented above, CMBS investors may be able to better protect themselves against credit and rating surprises.

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action because they are the ones that are more clear-cut.

⁵ S&P and Fitch acted first more often than Moody's with respect to bonds downgraded by at least two rating agencies (Chart 3). However, those situations may be less relevant for an investor seeking signals of impending

Appendix

| Table of Summary Results | | | | | | | | |
|---|-----------------------------|----------------------|---------------------------|--------------------------------|----------------------------------|------------------------------|---|------------------|
| | Rated by Moody's only | Rated by S&P only | Rated by Fitch only | Rated by Moody's and S&P | Rated by Moody's and Fitch | Rated by S&P and Fitch | Rated by Moody's, S&P, and Fitch | Total |
| TOTAL | 49 | 54 | 50 | 84 | 41 | 46 | 11 | 335 |
| Conduit | 33 | 40 | 25 | 26 | 20 | 27 | 3 | 174 |
| Lease-backed single borrower | 4 | 10 | 4 | 11 | 0 | 9 | 0 | 38 |
| Large Loan > \$20 million | 3 | 2 | 16 | 14 | 3 | 0 | 0 | 38 |
| Single-borrower non-lease backed | 9 | 2 | 1 | 33 | 17 | 2 | 8 | 72 |
| Seasoned loans | 0 | 0 | 4 | 0 | 1 | 8 | 0 | 13 |
| Downgraded by 2 or more | | | | 18 | 8 | 19 | 2 | 47 |
| Rated by 2 or more, Moody's Acted First | | | > | 62* [†] | 30 | | 4 | 96* [†] |
| Rated by 2 or more, S&P Acted First | \searrow | > | > | 24*† | | 23 | 5 | 52* [†] |
| Rated by 2 or more, Fitch Acted First | | | | | 11 | 23 | 2 | 36 |
| Rated by 2 or more, Moody's Downgraded First | | | | 68* | 26 | | 4 | 98* |
| Rated by 2 or more, S&P Downgraded First | | | > | 17* | | 23 | 6 | 46* |
| Rated by 2 or more, Fitch Downgraded First | > | > | > | | 15 | 23 | 1 | 39 |
| Downgraded by 2 or more, Moody's First | > | > | > | 8* | 4 | | 0 | 12* |
| Downgraded by 2 or more, S&P First | > | > | > | 11* | | 8 | 2 | 21* |
| Downgraded by 2 or more, Fitch First | > | > | > | | 4 | 11 | 0 | 15 |
| Moody's LCS Mean | 1.70 | > | > | 1.56 | 0.51 | | 0.39 | |
| Moody's LCS 25th percentile | 0.51 | > | > | 0.61 | 0.00 | | 0.00 | |
| Moody's LCS Median | 1.03 | > | > | 0.92 | 0.51 | | 0.44 | |
| Moody's LCS 75th percentile | 1.43 | | > | 1.63 | 0.61 | | 0.71 | |
| S&P LCS Mean | | 11.32 [‡] | > | 0.53 | | 1.02 | 0.99 | |
| S&P LCS 25th percentile | | 0.48 [‡] | | 0.00 | | 0.05 | 0.00 | |
| S&P LCS Median | | 1.52 [‡] | | 0.00 | | 0.92 | 0.84 | |
| S&P LCS 75th percentile | | 1.98 [‡] | | 0.26 | | 1.63 | 1.18 | |
| Fitch LCS Mean | | | 0.80 | | 0.63 | 0.46 | 0.18 | |
| Fitch LCS 25th percentile | | | 0.42 | | 0.00 | 0.00 | 0.00 | |
| Fitch LCS Median | | | 0.75 | | 0.00 | 0.26 | 0.00 | |
| Fitch LCS 75th percentile | | | 1.14 | | 0.77 | 0.95 | 0.10 | |
| Moody's MCS Mean | 10.72 | | | 1.80 | 1.86 | | 0.39 | |
| Moody's MCS 25th percentile | 0.51 | | > | 0.61 | 0.00 | | 0.00 | |
| Moody's MCS Median | 1.15 | | > | 0.92 | 0.51 | | 0.44 | |
| Moody's MCS 75th percentile | 1.43 | > | > | 1.63 | 0.61 | | 0.71 | |
| S&P MCS Mean | | 154.87 [‡] | | 1.58 | | 1.96 | 0.99 | |
| S&P MCS 25th percentile | | 0.50 [‡] | | 0.00 | | 0.05 | 0.00 | |
| S&P MCS Median | | 2.71 [‡] | | 0.00 | | 1.00 | 0.84 | |
| S&P MCS 75th percentile | | 44.93 [‡] | | 0.26 | | 2.04 | 1.18 | |
| Fitch MCS Mean | | | 3.88 | | 0.64 | 19.64 | 0.18 | |
| Fitch MCS 25th percentile | > | > | 0.42 | | 0.00 | 0.00 | 0.00 | |
| Fitch MCS Median | > | > | 1.07 | | 0.00 | 0.47 | 0.00 | |
| Fitch MCS 75th percentile | > | > | 1.67 | | 0.96 | 1.86 | 0.10 | |
| Path CSP and Mondrid downwarded MCC 4000 CFF and A lune 2000. No the path and an incomplete the description of the control of | | | | | | | | |

^{*} Both S&P and Moody's downgraded MSC 1998-CF1F on 12 June 2002. Neither rating agency had previously watchlisted the security. Both rating agencies receive credit for being the first to act and for being the first to downgrade.

[†] Both S&P and Moody's acted on FTST 2000-4TSD on 17 Sep. 2002. Moody's downgraded the bond to Ba1 from Baa2. S&P placed the bond's rating of BBB on CreditWatch. Both rating agencies get credit for being the first to act. Only Moody's gets credit for being the first to downgrade.

[‡] The high LCS and MCS values for CMBS rated only by S&P may be partly attributable to private ratings that were converted to public ratings shortly before S&P downgraded the securities.

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