

# CMBS Watchlistings, Downgrades, and Surveillance

2 October 2003

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## I. Introduction

This report is an extension of our earlier papers on CMBS credit migrations.<sup>1</sup> In this report we primarily examine (1) the power of watchlistings<sup>2</sup> as predictors of CMBS downgrades (2) variations in the rate of credit quality deterioration for CMBS rated at different levels, and (3) instances where CMBS experience repeat and multiple downgrades. Our main findings are as follows:

- Negative watchlistings of CMBS by Moody's and S&P have provided significantly stronger signals of possible downgrades than negative watchlistings by Fitch. Roughly half of the negative watchlistings of CMBS by Moody's and S&P have resulted in downgrades. In contrast, only about a quarter of Fitch's watchlistings on CMBS have resulted in downgrades.
- Downgraded CMBS hold their ratings for an average of two years before being downgraded. Downgraded CMBS rated in the double-B or single-B generic rating categories by Fitch displayed somewhat better stability. They lasted four years, on average, before being downgraded.
- CMBS downgraded by S&P or by Fitch have experienced notably higher frequencies of repeat downgrades (*i.e.*, downgrades by the same rating agency) than CMBS downgraded by Moody's. About a third of CMBS downgraded by S&P or Fitch experience repeat downgrades, while only about 15% of those downgraded by Moody's do.
- S&P and Fitch have shown the greatest degree of agreement in downgrading CMBS. For downgraded CMBS rated by at least two rating agencies, those rated by both S&P and Fitch showed the greatest propensity to be downgraded by both agencies (41%). Other rating agency combinations showed lower propensities of agreement.
- For CMBS downgraded by at least two rating agencies, the time between the downgrade by the first rating agency and the second was less than a month in nearly half of all cases.

<sup>\*</sup> Lauren Kaufman, a student at New York University's Stern School of Business, contributed to this report during her summer internship with Nomura Securities.

<sup>1</sup> Mark Adelson and Elizabeth Hoyt, *CMBS Credit Migrations*, Nomura fixed income research (4 December 2002); Mark Adelson and Elizabeth Hoyt, *Temporal Aspects of CMBS Downgrades and Surveillance*, Nomura fixed income research (1 July 2003).

<sup>2</sup> 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."

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### Contacts:

Mark Adelson  
(212) 667-2337  
madelson@us.nomura.com

Elizabeth Hoyt  
(212) 667-2339  
ehoyt@us.nomura.com

James Manzi  
(212) 667-2339  
jmanzi@us.nomura.com

Nomura Securities International, Inc.  
Two World Financial Center  
Building B  
New York, NY 10281-1198  
Fax: (212) 667-1046

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## 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 and 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.

In July of this year, we published a report titled "Temporal Aspects of CMBS Downgrades and Surveillance." In that report we examined certain time-dependant aspects of CMBS credit deterioration. However, we did not fully exhaust the subject. At the conclusion of our July report, we observed that a number of answered questions could provide fertile ground for further study. We tackle some of those questions here.

The main population for this study consisted of 335 CMBS tranches that have been downgraded. The population 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 December 2002 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.

For our analysis of watchlistings, we manually compiled rating histories on 6,615 CMBS issued during the sample period, regardless of whether or not downgraded. Those were all the CMBS for which we could compile rating histories from publicly available information and a small number of others with respect to which we obtained non-public information. We counted 457 different negative watchlistings affecting 323 different CMBS. The rating agencies provided invaluable assistance by helping us to fill in gaps in our data.

## III. Results

### A. Watchlistings

Watchlistings by Moody's and S&P provide stronger signals of potential downgrades of CMBS than do watchlistings by Fitch. Downgrades have followed more than half of the CMBS watchlistings by Moody's and by S&P, whereas downgrades have followed only around a quarter of the watchlistings by Fitch. These results hold over our entire sample period (1992-2002) and over recent years (2000-2002). In addition, the results hold regardless of whether watchlistings and downgrades associated with terrorism insurance are included or excluded. Exhibit 1 details our results:

<b>Exhibit 1: Predictive Power of CMBS Watchlistings by Each Rating Agency</b>				
Proportion of Negative Watchlistings Followed by Downgrades		Moody's	S&P	Fitch
<b>1992-2002 including</b> Terrorism Insurance- Related Actions	Percentage	<b>62%</b>	<b>55%</b>	<b>29%</b>
	Downgrades following Watchlistings	108	78	41
	Total Watchlistings	173	141	143
<b>1992-2002 excluding</b> Terrorism Insurance- Related Actions	Percentage	<b>52%</b>	<b>55%</b>	<b>25%</b>
	Downgrades following Watchlistings	68	78	32
	Total Watchlistings	132	141	128
<b>2000-2002 including</b> Terrorism Insurance- Related Actions	Percentage	<b>75%</b>	<b>63%</b>	<b>25%</b>
	Downgrades following Watchlistings	95	58	32
	Total Watchlistings	127	92	128
<b>2000-2002 excluding</b> Terrorism Insurance- Related Actions	Percentage	<b>64%</b>	<b>63%</b>	<b>20%</b>
	Downgrades following Watchlistings	55	58	23
	Total Watchlistings	86	92	113

The difference between the proportion of Fitch's negative watchlistings that become downgrades and the proportions of watchlistings by Moody's or S&P is statistically significant at the 99.9% level under all variations shown in Exhibit 1. This arguably suggests that Fitch's process for watchlisting CMBS and then resolving watchlistings is fundamentally different from those of S&P and Moody's. The difference in the proportions from Moody's and S&P is not statistically significant (but this does not necessarily imply that their processes are the same). Based on these results, investors can adapt the intensity of their response to CMBS watchlistings from the individual rating agencies.

## B. Half-Lives of Generic CMBS Ratings

CMBS ratings in different generic rating categories have displayed somewhat varying degrees of stability. For CMBS that experienced downgrades, on average about two years elapsed between the time that a CMBS received a rating in a generic rating category and the time that it was subsequently downgraded. However, CMBS rated by Fitch in the double-B or single-B generic rating categories displayed somewhat greater stability. Those CMBS persisted for three or four years (on average) at their generic rating levels before being downgraded. Exhibit 2 details our findings:

<b>Exhibit 2: Interval between Assignment of Generic Rating and Next Subsequent Downgrade</b> (for Downgraded CMBS at Various Generic Rating Levels) (years)				
Generic Rating Category	Descriptive Statistic	Moody's	S&P	Fitch
<b>A/A</b>	<b>Mean</b>	<b>1.9</b>	<b>1.8</b>	<b>1.7</b>
	Standard Deviation	1.0	1.4	1.6
	10 <sup>th</sup> Percentile	0.9	0.1	8 days
	90 <sup>th</sup> Percentile	3.3	4.3	3.0
	No. of Observations	19	23	9
<b>Baa/BBB</b>	<b>Mean</b>	<b>1.8</b>	<b>1.8</b>	<b>2.8</b>
	Standard Deviation	0.9	1.6	2.2
	10 <sup>th</sup> Percentile	0.7	0.4	0.2
	90 <sup>th</sup> Percentile	2.7	4.6	5.6
	No. of Observations	54	27	27
<b>Ba/BB</b>	<b>Mean</b>	<b>1.7</b>	<b>2.4</b>	<b>4.1</b>
	Standard Deviation	1.4	1.8	2.1
	10 <sup>th</sup> Percentile	0.1	0.4	2.0
	90 <sup>th</sup> Percentile	3.5	4.9	6.6
	No. of Observations	29	37	20

<b>Exhibit 2: Interval between Assignment of Generic Rating and Next Subsequent Downgrade</b> (for Downgraded CMBS at Various Generic Rating Levels) (years)				
Generic Rating Category	Descriptive Statistic	Moody's	S&P	Fitch
<b>B/B</b>	<b>Mean</b>	<b>2.4</b>	<b>2.4</b>	<b>3.4</b>
	Standard Deviation	1.6	2.1	2.0
	10 <sup>th</sup> Percentile	0.6	1 day	0.8
	90 <sup>th</sup> Percentile	4.1	5.3	6.6
	No. of Observations	24	53	48
Note: Some CMBS experienced repeat downgrades within very short intervals. For example, S&P downgraded CCMSC 2001, classes J, K, and L on 13 September 2002, and again six days later. Likewise, S&P downgraded various classes of DRSLT 1993-K1, 1994-K1, and 1994-K2 on 15 January 2002 and again the following day.				

Another way of looking at the issue is to examine the interval between the time that a CMBS receives a rating in a generic rating category and the time that it is downgraded into a lower generic rating category.<sup>3</sup> By that reckoning, downgraded CMBS rated double-B by S&P as well as those rate double-B or single-B by Fitch displayed somewhat greater stability. Those CMBS persisted for about four years at their generic rating levels before being downgraded to a lower generic rating category (Exhibit 3).

<b>Exhibit 3: Interval between Assignment of Generic Rating and Downgrade into Lower Generic Rating Category</b> (for Downgraded CMBS at Various Generic Rating Levels) (years)				
Generic Rating Category	Descriptive Statistic	Moody's	S&P	Fitch
<b>A/A</b>	<b>Mean</b>	<b>2.4</b>	<b>1.8</b>	<b>1.9</b>
	Standard Deviation	1.4	1.5	2.2
	10 <sup>th</sup> Percentile	1.0	14 days	8 days
	90 <sup>th</sup> Percentile	4.2	4.3	4.2
	No. of Observations	14	18	7
<b>Baa/BBB</b>	<b>Mean</b>	<b>2.0</b>	<b>2.2</b>	<b>2.3</b>
	Standard Deviation	1.2	1.6	2.1
	10 <sup>th</sup> Percentile	0.7	0.7	6 days
	90 <sup>th</sup> Percentile	3.5	4.6	4.5
	No. of Observations	43	26	20
<b>Ba/BB</b>	<b>Mean</b>	<b>1.8</b>	<b>4.0</b>	<b>4.4</b>
	Standard Deviation	1.4	1.9	2.1
	10 <sup>th</sup> Percentile	0.1	1.1	2.0
	90 <sup>th</sup> Percentile	3.5	6.0	6.7
	No. of Observations	20	32	19
<b>B/B</b>	<b>Mean</b>	<b>2.0</b>	<b>2.4</b>	<b>3.7</b>
	Standard Deviation	1.4	2.1	2.1
	10 <sup>th</sup> Percentile	0.4	1 day	1.2
	90 <sup>th</sup> Percentile	3.9	5.2	6.8
	No. of Observations	22	44	40
See note to Exhibit 2.				

At first blush, it is tempting to conclude that investors should adjust their expectations based on the foregoing results. However, we do not recommend doing so for two reasons. First, the population of observations was rather small, limiting the predictive reliability of our results. Second, the population of observed intervals within each generic rating category displayed notable dispersion around its mean. Thus, differences among the mean intervals at each generic rating level paint only an incomplete picture of the actual underlying phenomena.

<sup>3</sup> For purposes of this discussion, a downgrade within a generic rating level does not count. For example, a downgrade from **BBB+** to **BBB** or from **BBB** to **BBB-** would not count because it does not move a bond's rating into a lower generic rating category (*i.e.*, double-B or lower).

### C. Repeat and Multiple Downgrades

**Repeat Downgrades:** CMBS rated by S&P and those rated by Fitch experienced repeat downgrades roughly twice as often as those rated by Moody's. Roughly a third of the CMBS downgraded by S&P were downgraded two or more times by the rating agency. Likewise, Fitch took two or more downgrade actions on roughly a third of the CMBS that it downgraded. In contrast, only about 15% of the CMBS downgraded by Moody's experienced more than one downgrade from that rating agency. Exhibit 4 shows the results:

<b>Exhibit 4: Proportion of Downgraded CMBS Subjected to Repeat Downgrades by the Same Rating Agency</b>			
	Moody's	S&P	Fitch
Percentage	14.7%	32.2%	32.0%
No. of CMBS Downgraded More than Once by the Same Rating Agency	24	38	33
No. of CMBS Downgraded by Each Rating Agency	163	118	103

The difference between the proportion of repeat downgrades reported for Moody's and those reported for the other two agencies is statistically significant at the 99.9% confidence level. The difference in the proportions for S&P and Fitch is not statistically significant.

The reason behind the difference between Moody's proportion and the others' is somewhat unclear. It might be that S&P and Fitch are more tentative or hesitant than Moody's in downgrading CMBS. This interpretation would agree with the finding in our earlier studies that Moody's seems to act somewhat more decisively than its rivals.<sup>4</sup> Conversely, one might argue that S&P and Fitch are more methodical – taking repeat downgrade actions when credit quality deteriorates gradually over time. However, the latter view does not square with the fact that Moody's CMBS downgrades are no larger (*i.e.*, involve a movement of more rating notches), on average, than its competitors'.

Based on the results shown in Exhibit 4, investors arguably should adjust their propensity to buy or sell downgraded CMBS based on the implied relative likelihoods of repeat downgrades by each of the rating agencies.

**Multiple Downgrades:** Multiple downgrades (*i.e.*, instances where a CMBS was downgraded by more than one rating agency) present a more complex story. Multiple downgrades can affect only securities that have been rated by two or more rating agencies. Accordingly, we consider frequencies of multiple downgrades in terms of rating agency combinations.

Multiple downgrades have occurred most frequently on downgraded CMBS that carried ratings from both S&P and Fitch. More than 40% of such CMBS experienced multiple downgrades. In contrast, downgraded CMBS that carried ratings from other combinations of rating agencies experienced only about half that frequency of multiple downgrades. Exhibit 5 shows the results:

<b>Exhibit 5: Proportion of Downgraded CMBS Subjected to Multiple Downgrades</b> (including CMBS affected by terrorism insurance-related actions)					
Rating Agency Combinations	Moody's + S&P	Moody's + Fitch	S&P + Fitch	Moody's + S&P + Fitch	Total
Percentage	21%	20%	41%	18%	26%
No. of CMBS with Multiple Downgrades	18	8	19	2	47
No. of Downgraded CMBS (single and multiple)	84	41	46	11	182

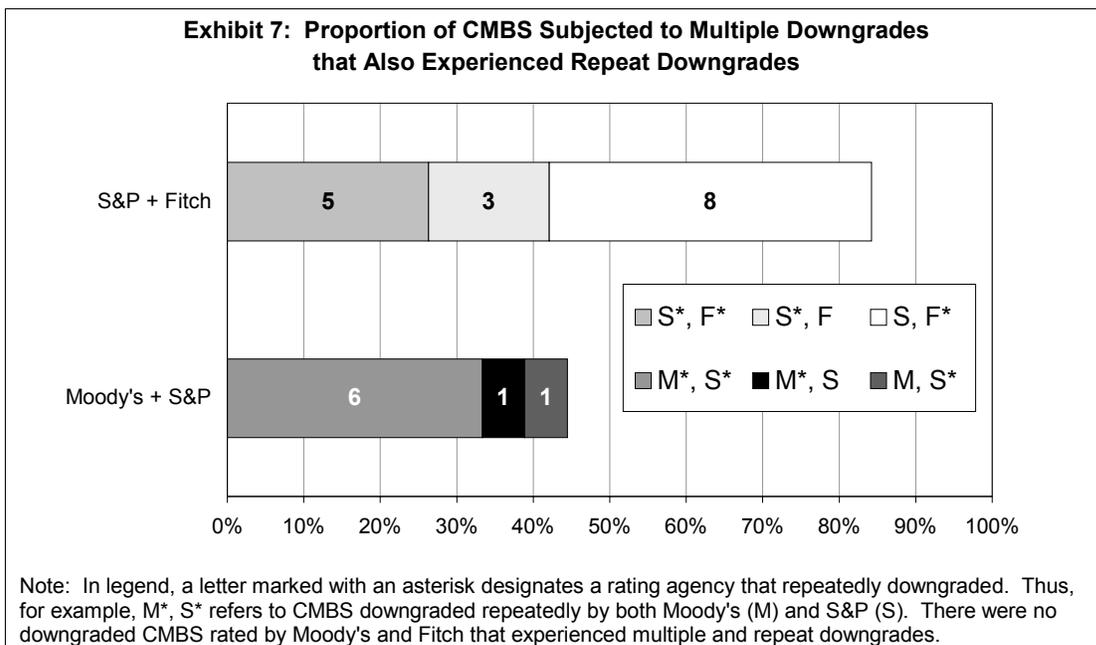
Excluding CMBS affected by terrorism insurance-related actions changes the results only slightly (Exhibit 6):

<sup>4</sup> Mark Adelson and Elizabeth Hoyt, *Temporal Aspects of CMBS Downgrades and Surveillance*, Nomura fixed income research at 5-6 (1 July 2003).

<b>Exhibit 6: Proportion of Downgraded CMBS Subjected to Multiple Downgrades</b> (excluding CMBS affected by terrorism insurance-related actions)					
Rating Agency Combinations	Moody's + S&P	Moody's + Fitch	S&P + Fitch	Moody's + S&P + Fitch	Total
Percentage	30%	16%	41%	22%	31%
No. of CMBS with Multiple Downgrades	18	4	19	2	43
No. of Downgraded CMBS (single and multiple)	60	25	46	9	140

The notable proportion of multiple downgrades in the "S&P+Fitch" category has several possible explanations. One is that those two rating agencies are the most likely to agree on their credit analyses of CMBS. A second possible explanation is that S&P and Fitch have rated a disproportionate share of CMBS that experience clear-cut credit deterioration (*i.e.*, *discernable* and *material* to at least two rating agencies). The latter interpretation conflicts somewhat with the results from our December 2002 report. There we found that, when measured by number of downgraded CMBS, the Moody's+S&P combination experienced an even higher frequency of downgrades than the S&P+Fitch combination.<sup>5</sup> Thus, we favor the former explanation.

A small number of CMBS that received multiple downgrades also received repeat downgrades. That is, some CMBS that were downgraded by more than one rating agency received repeat downgrades from at least one rating agency. Of those, some received repeat downgrades from more than one rating agency. Exhibit 7 details the results:



Interestingly, for multiple-downgraded CMBS in each rating agency combination category, only a minority of those that received repeat downgrades received repeat downgrades from two rating agencies (*i.e.*, multiple-repeat downgrades). Of nineteen CMBS that were downgraded by both S&P and Fitch, sixteen experienced repeated downgrades from at least one rating agency but only five experienced repeat downgrades from both rating agencies. Similarly, of eighteen CMBS that were downgraded by both Moody's and S&P, eight experienced repeated downgrades from at least one rating agency but just six experienced repeat downgrades from both rating agencies. Interestingly, the seemingly low frequency of multiple-repeat CMBS downgrades from the S&P+Fitch combination (5 of 19, or 26%) conflicts somewhat with the higher frequency of multiple (non-repeat) downgrades from that combination (41% in both Exhibits 5 and 6).

<sup>5</sup> Mark Adelson and Elizabeth Hoyt, *CMBS Credit Migrations*, Nomura fixed income research at 17 (4 December 2002) (Table 10).

**Time Between Multiple Downgrades:** For the 47 CMBS that experienced multiple downgrades (*i.e.*, downgrades from more than one rating agency), the downgrade by the second rating agency to act followed within a month of the downgrade by the first agency. Exhibit 8 shows the complete results:

<b>Exhibit 8: For CMBS Downgraded by At Least Two Rating Agencies, Time Elapsed between Downgrade by the First Agency and the Downgrade by the Second</b>		
Interval	No. of CMBS	Percentage
1 month	22	46.8%
2-3 months	5	10.6%
4-6 months	11	23.4%
7-12 months	5	10.6%
>1 year	4	8.5%
Total	47	99.9%

The results point toward "herding" behavior among the rating agencies with respect to CMBS downgrades. They also suggests that investors can adapt their expectations: if a bond's second rating is not lowered within a month following a downgrade of its other rating, the prospects for a second downgrade appear to diminish.

The other side of the story is arguably the more interesting one. When separate rating agencies downgrade a CMBS more than three months apart, they might not be reacting to the same credit developments. As shown in Exhibit 8, actions by different agencies were separated by more than three months in more than 40% of the cases. Unfortunately, with the available data, it is not possible to tell whether the apparent "delay" by "second" rating agencies in such cases is due to (1) bona fide differences of opinion, (2) possession of different information, or (3) inattention. Perhaps we shall never know.

#### IV. Conclusion

We believe that the most important results reported here are the following:

- Watchlistings by Moody's and S&P provide stronger signals of potential downgrades of CMBS than do watchlistings by Fitch.
- CMBS downgraded by S&P or by Fitch are more prone to experiencing repeat downgrades (by the same rating agency) than those downgraded by Moody's.

Both of those results reflect substantial numbers of observations and substantial differences between the agencies. Standard statistical tools indicate that both results are *highly* significant. In addition, both results suggest that investors may have an opportunity to profitably adapt their behavior based on the identity of an agency acting in a particular situation.

The results reported here amplify those discussed in our earlier studies of CMBS credit. However, the story is still not over. While we have been working on this report, the clock has been ticking and new credit events are happening. Those events will provide the future grist for our mill. We look forward to revisiting this area to assess the stability of the results that we have reported so far.

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## NEW YORK

Nomura Securities International  
2 World Financial Center, Building B  
New York, NY 10281  
(212) 667-9300

## TOKYO

Nomura Securities Company  
2-2-2, Otemachi, Chiyoda-Ku  
Tokyo, Japan 100-8130  
81 3 3211 1811

## LONDON

Nomura International PLC  
Nomura House  
1 St Martin's-le-grand  
London EC1A 4NP  
44 207 521 2000

## Nomura Fixed Income Research

### New York

David P. Jacob	(212) 667 2255	Head of Fixed Income Research and Structuring
David Resler	(212) 667 2415	Head of U.S. Economic Research
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### Tokyo

Nobuyuki Tsutsumi	81 3 3211 1811	ABS Research
-------------------	----------------	--------------

### London

John Higgins	44 207 521 2534	Head of Macro Economic Research- London
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