Comparing Ratings on Jointly-Rated International Structured Finance Securities: 2007 Update

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I. SUMMARY

Moody's published a study comparing the ratings of jointly-rated International structured finance (SF) securities across agencies in 2006.[1] The report was a follow-on to a similar US-oriented study, which we have recently updated.[2] All three studies revealed that:

– When all ratings from all sectors are combined, on average, current ratings assigned for jointly-rated instruments are lower from Moody's than from its competitors. The average absolute rating gap is generally above one notch when Moody's rating is different from its competitors' rating, and can be as high as three notches for some rating categories in some sectors.
  - Differences in ratings vary substantially across SF sectors.
  - Differences in ratings are greater for below-**Aaa** ratings than for **Aaa** ratings: Differences in ratings are greater for below-investment-grade ratings than for investment-grade ratings; indeed in many rating categories for some asset classes, same-level ratings are the exception, rather than the norm.
  - Differences in ratings show only a slight tendency to increase with the seasoning of the security.

– Differences reported in these studies, while very large in many cases, are likely to greatly understate the differences between Moody's rating opinions and those of other agencies on securities that are not jointly rated because rating shopping often causes large differences in rating opinions to be unobserved by the market.[3]

1 See "Comparing Ratings on Jointly-Rated International Structured Finance Securities," Moody's Special Report, July 2006.

2 See "Comparing Ratings on Jointly-Rated U.S. Structured Finance Securities," Moody's Special Report, May 2006 and "Comparing Ratings on Jointly-Rated U.S. Structured Finance Securities: 2007 Update," Moody's Special Report, March 2007.

3 Rating shopping in Structured Finance hides large systematic differences in rating opinions across agencies. Data detailing differences of opinion on non-jointly-rated securities are presented in the following Moody's Special Reports: "Moody's Views on 'Notching' CMBS Ratings in CDOs" (June 22, 2001), "Moody's Study of Ratings of Non-Moody's-Rated RMBS" (April 18, 2002), "Moody's Studies Ratings of Non-Moody's Rated CDOs and Confirms Rating Estimate Approach" (March 22, 2002). In the EMEA CMBS market, Moody's did not rate a significant number of non-**Aaa** tranches because the rating gaps generally would have been two notches or more if Moody's had rated them. See the CMBS section below for more on rating shopping within the EMEA CMBS market and increasingly within the EMEA RMBS market as well.

This report represents an update of last year's International SF ratings comparison. Based on sets of 5,155 rating pairs vis-à-vis S&P and 3,762 such pairs vis-à-vis Fitch as of January 31, 2007 *we find that last year's conclusions remain essentially unchanged*.[4] For example, while roughly 98% of the Moody's/S&P and Moody's/Fitch ratings are the same when the Moody's rating is **Aaa**, the percentage of same ratings drops to 59% and 48% vis-à-vis S&P and Fitch, respectively, when the Moody's rating is non-**Aaa**.

This report is organized as follows: in Section II, we discuss the results by SF sector. Section III summarizes the results for **Aaa** vs. non-**Aaa** and investment-grade vs. below-investment-grade ratings. We focus on the impact of seasoning in Section IV and provide concluding remarks in Section V.

II. RATING COMPARISONS BY STRUCTURED FINANCE SECTOR

As in last year's study, we decompose SF in four broad sectors: Residential Mortgage-Backed Securities (RMBS), Commercial Mortgage-Backed Securities (CMBS), Asset-Backed Securities (ABS) and Collateralized Debt Obligations (CDOs). (Note again that Manufactured Housing and Home Equity Loan/Line of Credit securities, which account for a substantial proportion of ABS in the U.S., were not observed outside the U.S.)

For our 2007 analysis, we again assembled a large database of Moody's ratings and those of S&P and Fitch for International SF securities. The number of ratings for each broad rating category and SF sector are reported in *Table 1*.[5]

Table 1:
Count of Joint Ratings by Moody's Rating Level and Sector

	Pairs with S&P					Pairs with Fitch				
Moody's Rating	**Total SF**	**RMBS**	**CMBS**	**ABS**	**CDO**	**Total SF**	**RMBS**	**CMBS**	**ABS**	**CDO**
Aaa	2,182	1,063	223	287	609	1,507	872	172	218	245
Aa	991	436	111	75	369	687	372	74	69	172
A	834	343	79	167	245	695	340	59	154	142
Baa	824	364	80	159	221	643	363	56	129	95
Ba	288	79	28	40	141	173	74	24	37	38
B	19	3	6	3	7	22	7	5	4	6
Caa-below	17	3	3	8	3	29	13	0	13	3
All Ratings	5,155	2,291	530	739	1,595	3,756	2,041	390	624	701

Relative to our 2006 report, the number of observations of joint ratings has increased by about 29% and 25% vis-à-vis S&P and Fitch, respectively. Despite the growth of International SF ratings, the number of International joint rating pairs as a share of the concurrent U.S. total actually declined a bit. The number of rating pairs with S&P remains less than 10% of the U.S. figure and the number of pairs with Fitch has dropped below 12% of the corresponding U.S. figure.

As before, the composition of International SF rating pairs by sector differs substantially from that in the U.S. Most notably, a much smaller proportion of joint International ratings are from ABS due to the absence of the Manufactured Housing and Home Equity Loan securities outside the U.S. On a relative basis, CDOs also continue to be better represented in the International ratings, particularly with respect to S&P. The vast majority of the ratings (88%) are again from "EMEA" (Europe, Middle East and Africa—of which almost all are from Europe) with nearly all the remainder from the Asia-Pacific region.

Aaa ratings continue to account for about 40% of International joint SF ratings, below the roughly one-half share in the U.S. Despite the increased number of rating pairs relative to our 2006 study, the number of joint ratings remains quite small below the **Ba** level, making it difficult to draw meaningful conclusions at those levels.[6]

4 Similarly, we found no practical difference in our conclusions for U.S. SF ratings between 2006 and 2007.

5 The data cover International Moody's-rated SF transactions outstanding as of January 31, 2007. All Moody's-rated International SF transactions for which we were able to gather S&P and/or Fitch ratings are included.

6 For completeness, we present results at these rating levels in our tables, but we will not draw any conclusions from results based on fewer than 10 observations.

Ratings of Structured Finance Securities in the Aggregate

Table 2 illustrates the relationships between Moody's ratings as of January 31, 2007 and those of S&P and Fitch for credits that were rated by Moody's and the indicated other agency.[7] For the purpose of the "Average" differential calculation, each rating is converted to a number (e.g., **Aaa**=**AAA**=21, **Aa1**=**AA+**=20, etc.) and the numerical equivalent of the S&P or Fitch rating is subtracted from the numerical equivalent of the Moody's rating.[8] The averages are calculated based on number of ratings, not transaction volume.

Table 2:
Comparison of Ratings for Jointly Rated International Structured Finance Instruments

	Pairs with S&P						Pairs with Fitch					
Moody's Rating	**Average Gap***	**Average Gap if Moody's Lower±**	**Average Gap if Moody's Higher±**	**Moody's Lower**	**Same**	**Moody's Higher**	**Average Gap***	**Average Gap if Moody's Lower±**	**Average Gap if Moody's Higher±**	**Moody's Lower**	**Same**	**Moody's Higher**
Aaa	0.03	--	2.39	--	98.6%	1.4%	0.05	--	2.21	--	97.8%	2.2%
Aa	(0.20)	(1.20)	1.46	35.7%	48.3%	15.9%	(0.46)	(1.32)	1.53	51.8%	33.9%	14.3%
A	0.00	(1.82)	1.37	15.5%	63.7%	20.9%	(0.33)	(2.19)	1.41	27.5%	52.9%	19.6%
Baa	(0.16)	(1.31)	1.12	22.2%	65.8%	12.0%	(0.46)	(1.77)	1.16	32.7%	56.8%	10.6%
Ba	(0.00)	(1.49)	1.24	14.9%	67.4%	17.7%	(0.34)	(1.62)	1.17	30.6%	56.1%	13.3%
B	0.00	(1.50)	1.00	10.5%	73.7%	15.8%	(0.09)	(1.29)	1.75	31.8%	50.0%	18.2%
Caa-below	(0.88)	(1.42)	1.00	70.6%	17.6%	11.8%	(1.10)	(2.60)	1.00	51.7%	24.1%	24.1%
All Rating	(0.05)	(1.36)	1.39	14.0%	75.9%	10.0%	(0.23)	(1.67)	1.45	22.2%	68.0%	9.8%

* Number of refined rating notches. A negative number indicates that the Moody's rating is, on average, lower

± Weighted average gap for those cases in which the Moody's rating is lower/higher.

The information presented in *Table 2* is similar to that in our 2006 examination, as well as to the updated U.S. figures. In general, rating average differentials[9] remain quite small with a slight narrowing from the previous year vis-à-vis S&P and almost no change vis-à-vis Fitch. Again, on average, Moody's ratings have tended to be marginally lower than those of both Fitch and S&P. The smaller difference relative to S&P is again primarily attributable to the ABS sector, where S&P's ratings continue to be slightly lower than those of Moody's for jointly-rated instruments (for details, please see *Table 5* below).

Unlike the U.S. pattern, the average rating gaps for non-**Aaa** Moody's ratings show only a modest tendency to rise as the Moody's rating level falls, perhaps due to the small number of below-investment-grade (Moody's) ratings in our population.[10] A relatively large negative gap at the **Aa** level is attributable to the RMBS and CMBS sectors, and appears to be associated with differences in the ratings of thin tranches that are sliced off the bottom of a **Aaa** tranche.[11]

The proportion of **Aaa** ratings that are matched by **AAA** rating of S&P and/or Fitch remains very high—still around 98%. Again, however, the frequency at which the Moody's rating matches that of the other agency for below-**Aaa** ratings falls significantly (to an average of 59% vs. S&P and 48% vs. Fitch—see also *Table 7*). Again, there is an apparent anomaly at the **Aa** level, where ratings are the same for less than half of the

7 Note that we have not distinguished between double- and triple-rated securities.

8 We treat all rating gaps as if they were equivalent, but the expected loss difference associated with a one-notch rating gap increases sharply as ratings fall. See Section III of the U.S. study cited above for more discussion.

9 One might also term this the "net" differential in the sense that positive and negative differences are netted. For example, if Moody's rating were one notch higher in one case and one notch lower in another, the average gap for the two data points would be calculated as zero.

10 Note that at the **Aaa** level, the average differential *must* be positive since the other agency's rating cannot be higher than the equivalent of **Aaa** and will be lower in rare instances. At very low Moody's rating levels (e.g., **Caa1** or below), there may also be a slight bias toward a negative gap in that we know *a priori* that the Moody's rating is low.

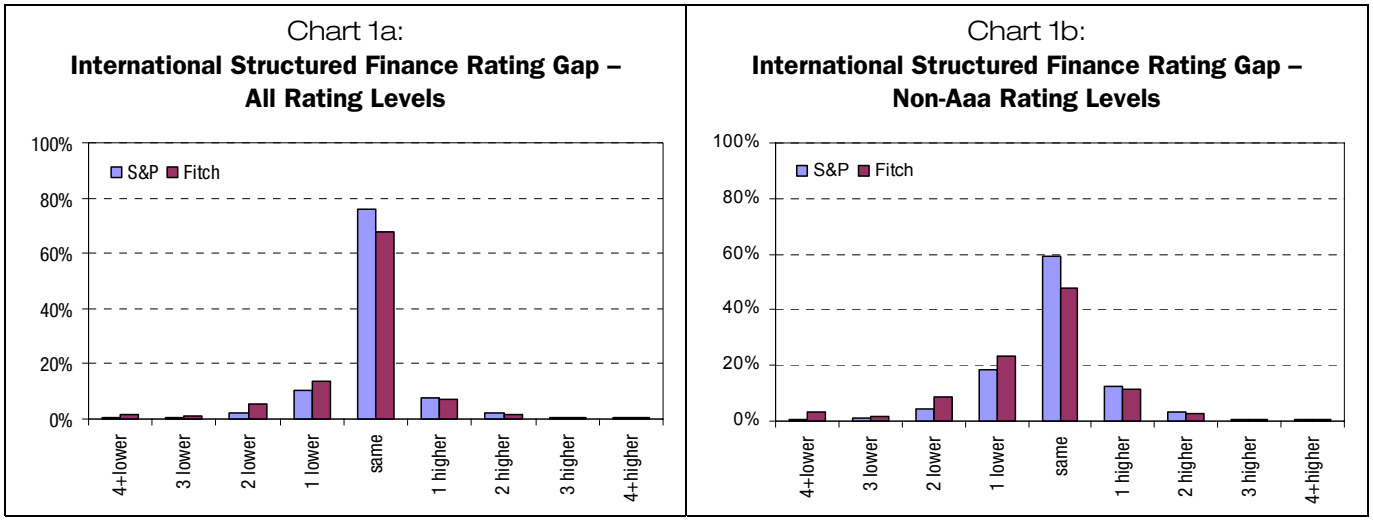
11 As we noted in the U.S. study, "slicing-off" the bottom portion of a **Aaa**/**AAA**-rated senior tranche to create a super-senior tranche and a thinner, now subordinated tranche has been common in RMBS and CMBS. While the default probability of the newly-created subordinated tranche is the same as that of the original **Aaa**/**AAA**-rated tranche, as the level of protection supporting them is the same, the loss given default of the subordinated tranche is greater than that of the original **Aaa**/**AAA**-rated tranche, given the subordinated tranche's smaller size. A default probability rating approach would result in the newly created subordinated tranche achieving a **Aaa**/**AAA** rating. However, given the subordinated tranche's higher expected loss, Moody's often rates such tranches no higher than **Aa**.

joint pairs. This can be seen from the perspective of the S&P and Fitch ratings as well: when the S&P rating is **AAA**, the corresponding Moody's rating is **Aaa** 95% of the time, and lower 5%. Relative to Fitch, the Moody's rating is **Aaa** 90% of the time and lower 10%.

We can glean a bit more by examining not just the average rating differentials, but the *distribution* of rating differentials with respect to both Moody's vs. S&P's and Moody's vs. Fitch's ratings (*Chart 1*).

Chart 1:

Rating Gap Distribution for Jointly Rated International Structured Finance Tranches



As the data in *Table 2* suggested above, the tendency for Moody's/S&P or Moody's/Fitch ratings of jointly-rated instruments to be the same is significantly higher at the **Aaa** level than at other rating levels. In fact, less than half of the Moody's/Fitch ratings are the same for non-**Aaa** ratings (*Table 7* below). Vis-à-vis both S&P and Fitch, in the majority of cases in which the Moody's rating is lower, the gap is one notch. This is also true in the relatively small proportion of cases (about 10%) in which the Moody's rating is higher.

Ratings of RMBS

The joint rating relationships in the RMBS sector are nearly unchanged from those reported in our 2006 study. On average, Moody's ratings remain about one-tenth notch below those of S&P and Fitch. The average rating gaps—conditional on the Moody's rating being either higher or lower—do not exceed two notches in any case. However, Moody's rating at the **Aa** level is below the corresponding rating of Fitch and S&P for *most* rating pairs. As is true for International SF ratings in general, the average gap when the Moody's rating is lower is particularly large at the single-**A** rating level.

Table 3:

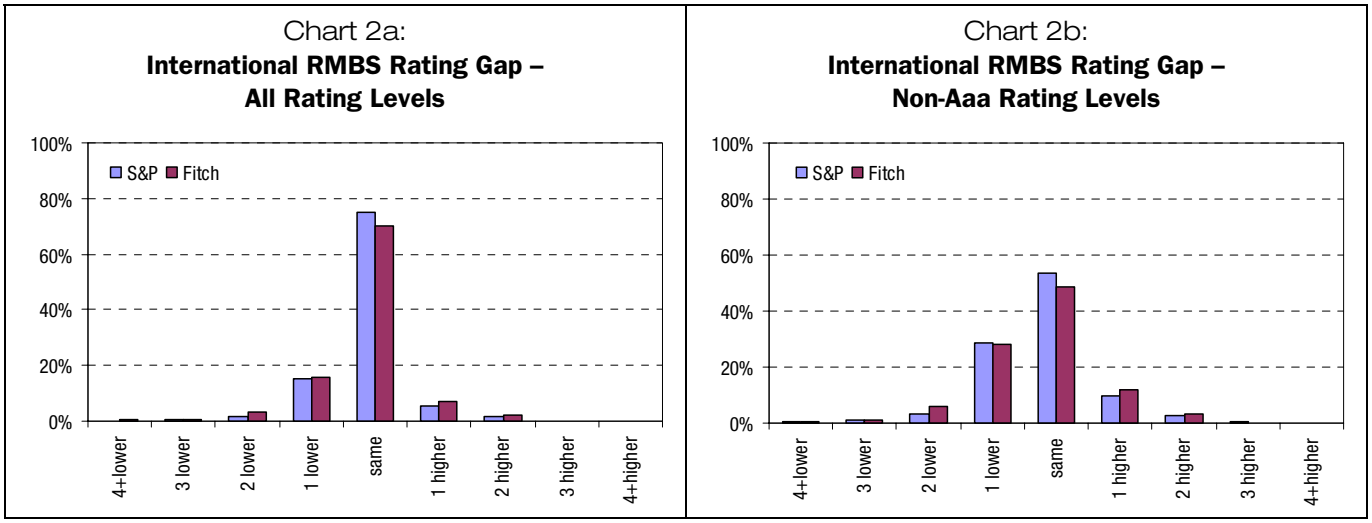
Comparison of Ratings for Jointly Rated RMBS Tranches[12]

	Pairs with S&P						Pairs with Fitch					
Moody's Rating	**Average Gap**	**Average Gap if Moody's Lower**	**Average Gap if Moody's Higher**	**Moody's Lower**	**Same**	**Moody's Higher**	**Average Gap**	**Average Gap if Moody's Lower**	**Average Gap if Moody's Higher**	**Moody's Lower**	**Same**	**Moody's Higher**
Aaa	0.01	--	2.33	--	99.4%	0.6%	0.03	--	2.30	--	98.9%	1.1%
Aa	(0.42)	(1.07)	1.54	52.8%	37.8%	9.4%	(0.42)	(1.13)	1.50	57.8%	27.2%	15.1%
A	(0.10)	(1.60)	1.35	21.3%	61.2%	17.5%	(0.11)	(1.74)	1.20	21.5%	56.8%	21.8%
Baa	(0.22)	(1.26)	1.21	26.4%	64.3%	9.3%	(0.23)	(1.32)	1.11	26.2%	63.4%	10.5%
Ba	0.00	(1.50)	1.11	17.7%	58.2%	24.1%	(0.31)	(1.32)	1.00	33.8%	52.7%	13.5%
B	0.67	--	1.00	0.0%	33.3%	66.7%	(0.43)	(1.67)	1.00	42.9%	28.6%	28.6%
Caa-below	0.33	--	1.00	0.0%	66.7%	33.3%	(0.38)	(1.80)	1.00	38.5%	30.8%	30.8%
All Rating	(0.12)	(1.22)	1.37	18.0%	74.9%	7.1%	(0.14)	(1.30)	1.31	20.4%	70.1%	9.5%

12 The unusually high proportion of cases in which the Moody's rating is lower at the **Aa** level is addressed in the previous footnote. Note that the anomalous "Moody's Higher" figure for Moody's-rated **Caa** RMBS vs. Fitch is based on only four joint ratings.

Chart 2 summarizes the distribution of rating differentials for the same RMBS tranches. When Moody's rating differs from that of the other agency, the gap is one notch in the vast majority of cases. Note that while Moody's **Aaa** ratings are at an equivalent level to those of S&P or Fitch in 99% of all cases, the matching proportion drops sharply (to 54% vs. S&P and 49% vs. Fitch) for non-**Aaa** rating pairs (also see *Table 7* below).

Chart 2:
Rating Gap Distribution for Jointly Rated RMBS Tranches



Ratings of CMBS

Differences in joint CMBS ratings remain similar to those on the RMBS side. In part, this reflects a similar proportion of CMBS rating pairs for which the Moody's rating is **Aaa**—a bit over 40% vis-à-vis both S&P and Fitch. Again, the **Aaa** share is similar to the U.S. pattern.

While last year the CMBS rating differential was a bit more pronounced for Moody's/S&P pairs, this year the Moody's/S&P and Moody's/Fitch relationships are nearly identical, with Moody's rating on average about one-tenth notch lower.

Also similar to the RMBS picture (as well as to that for U.S. CMBS), there is again no clear tendency for rating gaps within the non-**Aaa** range to rise as the Moody's rating falls. There is no meaningful case in which the average rating gap—again conditional on Moody's rating being either higher or lower—exceeds two notches.[13]

It is important to note that the *joint* ratings data obscure a large number of cases in which Moody's rating would evidently have been lower than that of another agency had Moody's actually assigned ratings.

Specifically, there are many CMBS transactions for which Moody's rated a senior tranche **Aaa**, but whose less senior tranches were rated only by S&P and/or Fitch. The pattern appears to result from rating shopping since Moody's would have evaluated all tranches in these transactions but was not asked to rated the less senior tranches because the rating gaps would have been two notches or higher. The number of such non-Moody's-rated tranches would have constituted about a third of joint ratings in the EMEA CMBS sector if Moody's had instead rated the tranches. This means that the average rating gap would have been at least -0.80 rather than -0.15 among all tranches including **Aaa**'s, and greater than (in absolute terms) -2.0 notches among non-**Aaa** tranches in the CMBS sector.[14]

13 When Moody's rating is lower, the only case in which the average rating gap reaches two notches is for pairs with Fitch in which the Moody's rating is **Ba**. In the less frequent cases when Moody's rating is higher, the average gap exceeds two notches when the Moody's rating is **Aaa** and when it is A vis-à-vis both of the other agencies. However, all of these entail less than 10 data points per Moody's rating bin.

14 This phenomenon was increasingly observed in the EMEA RMBS sector.

Table 4:
Comparison of Ratings for Jointly Rated CMBS Tranches

	Pairs with S&P						Pairs with Fitch					
Moody's Rating	**Average Gap**	**Average Gap if Moody's Lower**	**Average Gap if Moody's Higher**	**Moody's Lower**	**Same**	**Moody's Higher**	**Average Gap**	**Average Gap if Moody's Lower**	**Average Gap if Moody's Higher**	**Moody's Lower**	**Same**	**Moody's Higher**
Aaa	0.11	--	3.57	--	96.9%	3.1%	0.12	--	5.00	--	97.7%	2.3%
Aa	(0.32)	(1.48)	1.81	39.6%	45.9%	14.4%	(0.45)	(1.43)	1.43	40.5%	50.0%	9.5%
A	(0.16)	(1.68)	2.40	27.8%	59.5%	12.7%	(0.14)	(1.22)	3.50	30.5%	62.7%	6.8%
Baa	(0.50)	(1.57)	1.00	35.0%	60.0%	5.0%	(0.39)	(1.04)	1.00	41.1%	55.4%	3.6%
Ba	(0.25)	(1.80)	1.00	17.9%	75.0%	7.1%	(0.67)	(2.00)	--	33.3%	66.7%	0.0%
B	(0.17)	(1.00)	--	16.7%	83.3%	0.0%	(0.20)	(1.00)	--	20.0%	80.0%	0.0%
Caa-below	(1.00)	(1.00)	--	100.0%	0.0%	0.0%	--	--	--	--	--	--
All Rating	(0.14)	(1.54)	2.15	19.4%	73.2%	7.4%	(0.15)	(1.33)	2.71	20.5%	75.1%	4.4%

As shown in *Chart 3*, the rating gap distributions for CMBS joint rating pairs remain similar to those from last year. When the Moody's rating is lower that that of S&P and/or Fitch, the gap is usually a single notch. In the rarer instances in which the Moody's rating is higher, the proportion of multi-notch gaps is somewhat higher; indeed, most of these differentials relative to Fitch exceed one notch.

Chart 3:
Rating Gap Distribution for Jointly Rated CMBS Tranches

Chart 3a:
International CMBS Rating Gap – All Rating Levels

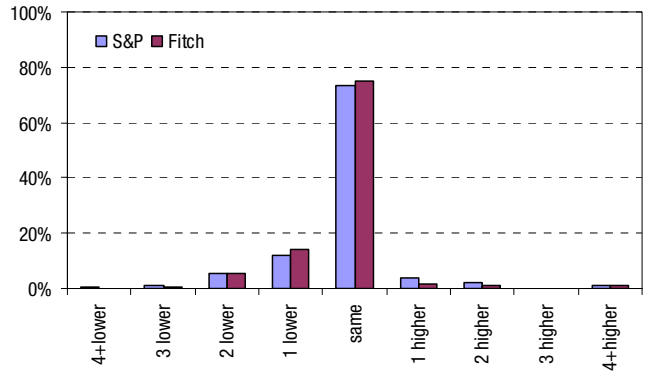
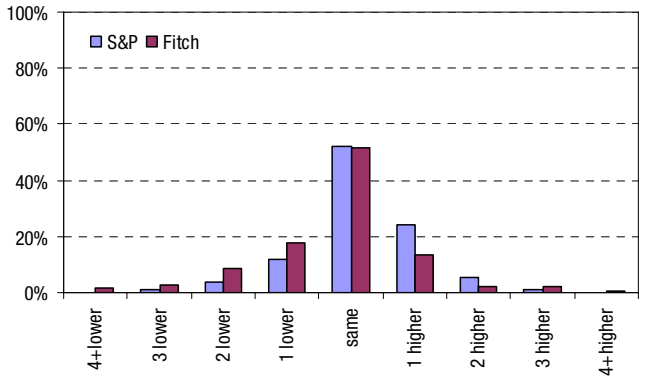


Chart 3b:
International CMBS Rating Gap – Non-Aaa Rating Levels



Ratings of ABS

ABS remains the only sector in which the rating differential vs. one of the other agencies (S&P) is, on average, positive. The small positive gap (about one-tenth of a notch) can be attributed primarily to a relatively high proportion of cases in which the Moody's rating is above S&P's in the **Aa** and **A** categories. Indeed at the **Aa** level, Moody's rating is as likely to be higher than S&P's as it is to match S&P's rating. This is again in contrast to the U.S. joint rating relationship for ABS, in which the Moody's/S&P gap is not only negative, but is more negative than the Moody's/Fitch differential (-.30 vs. -.21).

Rating gaps tend to grow as the rating level falls vis-à-vis Fitch, but there is no clear rating-linked pattern relative to S&P.

Table 5:
Comparison of Ratings for Jointly Rated ABS Tranches

	Pairs with S&P						Pairs with Fitch					
Moody's Rating	**Average Gap**	**Average Gap if Moody's Lower**	**Average Gap if Moody's Higher**	**Moody's Lower**	**Same**	**Moody's Higher**	**Average Gap**	**Average Gap if Moody's Lower**	**Average Gap if Moody's Higher**	**Moody's Lower**	**Same**	**Moody's Higher**
Aaa	0.05	--	1.86	--	97.6%	2.4%	0.01	--	1.00	--	98.6%	1.4%
Aa	0.49	(1.09)	1.53	14.7%	42.7%	42.7%	(0.03)	(1.43)	1.87	30.4%	47.8%	21.7%
A	0.32	(1.69)	1.25	7.8%	55.7%	36.5%	(0.06)	(1.68)	1.67	24.7%	53.9%	21.4%
Baa	0.03	(1.19)	1.08	20.1%	55.3%	24.5%	(0.26)	(1.36)	1.18	34.1%	48.8%	17.1%
Ba	(0.10)	(1.50)	1.75	30.0%	50.0%	20.0%	(0.43)	(1.90)	1.00	27.0%	64.9%	8.1%
B	0.00	--	--	0.0%	100.0%	0.0%	0.00	--	--	0.0%	100.0%	0.0%
Caa-below	(1.38)	(1.71)	1.00	87.5%	0.0%	12.5%	(2.31)	(3.00)	--	76.9%	23.1%	0.0%
All Rating	0.13	(1.36)	1.32	10.1%	69.8%	20.0%	(0.14)	(1.65)	1.51	19.7%	68.1%	12.2%

Turning to the distribution of gaps, in more than 42% of the cases where the Moody's rating is lower than Fitch's rating, the associated rating gap is two or more notches. The corresponding figure vs. S&P is just 28%. This is quite similar to distribution we observed in our 2006 data.

Chart 4:
Rating Gap Distribution for Jointly Rated ABS Tranches

Chart 4a:
International ABS Rating Gap – All Rating Levels

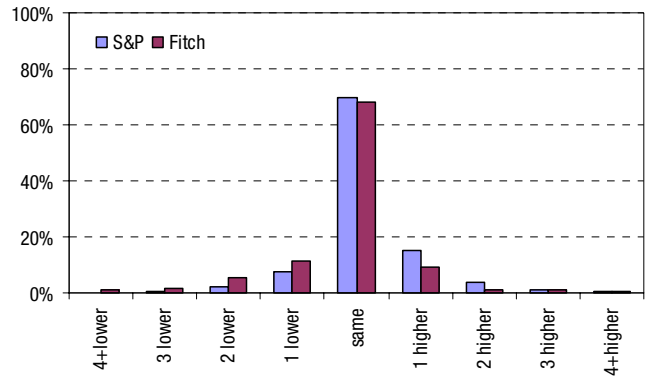
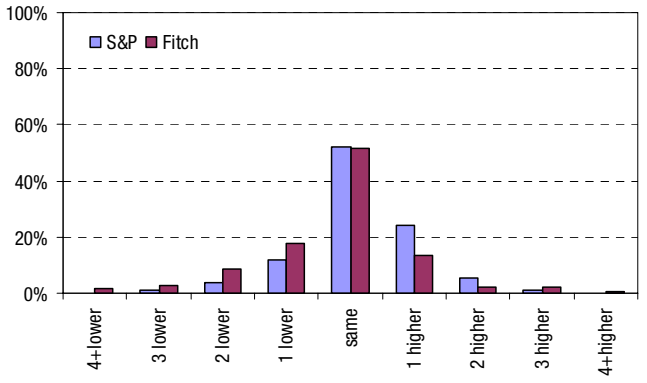


Chart 4b:
International ABS Rating Gap – Non-Aaa Rating Levels



Ratings of CDO Tranches

As we saw last year, the CDO sector gives rise to the sharpest difference within the SF universe in joint rating relationships between Moody's/S&P on the one hand, and Moody's/Fitch on the other. The average rating gap vs. S&P is zero, while the average gap vs. Fitch is -0.60. Similarly, the proportion of cases in which the Moody's rating is lower than that of the other agency is just under 10% vis-à-vis S&P, but is nearly one-third vs. Fitch.

Relative to the concurrent U.S. rating pattern, the Moody's/S&P relationship is quite similar, but the clear difference (lower International Moody's ratings relative to Fitch) has persisted. The Moody's/Fitch pairs exhibit both much higher frequencies of lower Moody's ratings (roughly 50% for non-**Aaa** investment-grade ratings) and much larger rating gaps (e.g., above three notches in the single-**A** and **Baa** categories when Moody's rating is lower) than was seen in the non-US data. (The -0.60 average gap is larger than the average gaps in other International sectors and all U.S. sectors)

Table 6:
Comparison of Ratings for Jointly Rated CDO Tranches

	Pairs with S&P						Pairs with Fitch					
Moody's Rating	**Average Gap**	**Average Gap if Moody's Lower**	**Average Gap if Moody's Higher**	**Moody's Lower**	**Same**	**Moody's Higher**	**Average Gap**	**Average Gap if Moody's Lower**	**Average Gap if Moody's Higher**	**Moody's Lower**	**Same**	**Moody's Higher**
Aaa	0.04	--	2.00	--	98.2%	1.8%	0.11	--	1.69	--	93.5%	6.5%
Aa	(0.03)	(1.46)	1.29	18.7%	62.6%	18.7%	(0.73)	(1.71)	1.40	52.3%	36.0%	11.6%
A	(0.00)	(2.81)	1.35	8.6%	73.9%	17.6%	(1.20)	(3.31)	1.36	43.7%	38.7%	17.6%
Baa	(0.06)	(1.37)	1.09	12.2%	77.8%	10.0%	(1.62)	(3.40)	1.50	50.5%	43.2%	6.3%
Ba	0.07	(1.33)	1.18	8.5%	75.9%	15.6%	(0.11)	(1.80)	1.40	26.3%	47.4%	26.3%
B	(0.14)	(2.00)	1.00	14.3%	71.4%	14.3%	0.33	(1.00)	2.50	50.0%	16.7%	33.3%
Caa-below	(0.67)	(1.00)	--	66.7%	33.3%	0.0%	1.00	--	1.00	0.0%	0.0%	100.0%
All Rating	0.00	(1.64)	1.31	8.3%	81.2%	10.5%	(0.60)	(2.55)	1.46	30.4%	57.9%	11.7%

The difference between the Moody's/S&P and Moody's/Fitch relationships persist in the distributional data as well (*Chart 5*). Both for all ratings and for non-**Aaa** ratings, the left tails of the Moody's/Fitch distributions are quite wide. Again, *most* of the cases in which the Moody's rating is lower are associated with multi-notch differences. This is consistent with the fact that the average gap vs. Fitch exceeds 2 ½ notches when the Moody's rating is lower (*Table 6*). Consistent with the difference in rating gaps, 71% of non-**Aaa** Moody's/S&P ratings are at the same level, but the corresponding Moody's/Fitch figure is just 39% (*Table 7*).

Chart 5:
Rating Gap Distribution for Jointly Rated CDO Tranches

Chart 5a:
International CDO Rating Gap – All Rating Levels

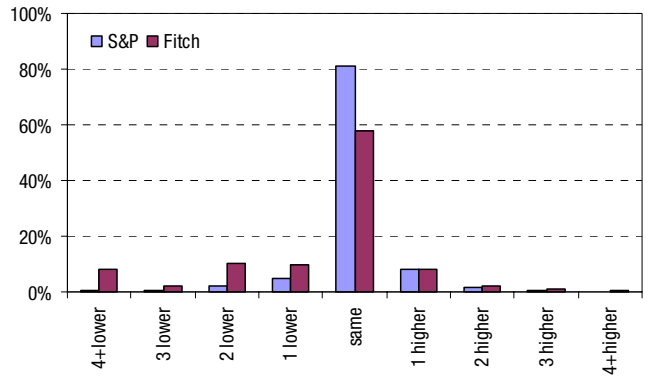
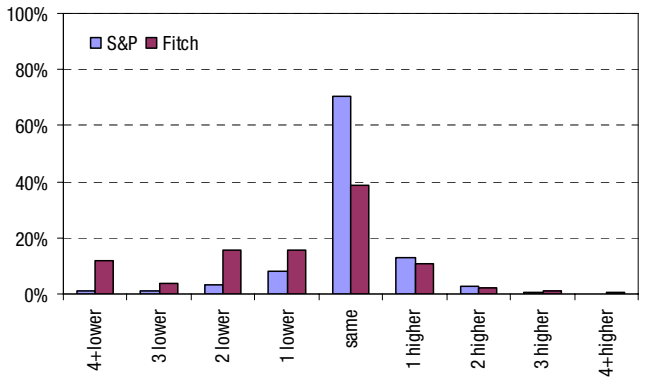


Chart 5b:
International CDO Rating Gap – Non-Aaa Rating Levels



III. AAA VS. NON-AAA AND INVESTMENT-GRADE VS. BELOW-INVESTMENT GRADE RATING LEVELS

Both the U.S. experience and the figures above suggest that there is a significant difference between the rating relationships when the Moody's rating is **Aaa**, in comparison to instances where the Moody's rating is below **Aaa**. We also saw in the U.S. case that the investment-grade/ non-investment grade distinction is important. We will review the relevant data here as well.

Prior to presenting the data, we recall the reasons why we would expect the **Aaa**/non-**Aaa** distinction to be important. We will merely summarize our conclusions here since the rationale was presented in the U.S. rating comparison study.[15]

15 See Section III of the 2006 and 2007 U.S. studies.

– ***Aaa*** *(**AAA**) is the highest possible rating:* the Moody's rating cannot be lower than another agency's when the Moody's rating is **Aaa**. Also, one can't distinguish between a **Aaa** (**AAA**) rating that just meets its rating threshold and a "super" **Aaa** (**AAA**) rating.

– *Structurers have a strong incentive to meet each agency's **Aaa/AAA** criteria:* Underwriters and issuers derive significant value from multiple ratings of (typically large) senior tranches, but try to avoid split ratings.

– *Moody's Expected Loss (EL) Approach Favors Larger, More Senior Tranches:* because loss-given-default is small for such tranches, they benefit from an EL perspective.

We also noted in the U.S. piece that the significance of each one-notch rating gap at lower rating levels exceeds that at the **Aaa** level because absolute differences in EL rise sharply as one moves down the rating scale.

What the Data Show

To better focus on the **Aaa** vs. non-**Aaa** distinction, as well as the difference between investment-grade and below-investment-grade instruments, we restate the results above by collapsing several of the rating categories (*Table 7*).

Table 7:

Comparison of Ratings for Jointly Rated SF Tranches by High-Low Rating Range

Moody's Rating	Pairs with S&P						Pairs with Fitch					
ALL SF	Average Gap	Average Gap if Moody's Lower	Average Gap if Moody's Higher	Moody's Lower	Same	Moody's Higher	Average Gap	Average Gap if Moody's Lower	Average Gap if Moody's Higher	Moody's Lower	Same	Moody's Higher
Aaa	0.03	--	2.39	--	98.6%	1.4%	0.05	--	2.21	--	97.8%	2.2%
non-**Aaa**	(0.11)	(1.36)	1.33	24.3%	59.3%	16.4%	(0.41)	(1.67)	1.38	37.0%	48.1%	14.9%
Inv. Grade	(0.05)	(1.35)	1.42	13.8%	76.7%	9.6%	(0.22)	(1.66)	1.47	21.4%	69.1%	9.5%
BIG#	(0.05)	(1.47)	1.21	17.6%	65.1%	17.3%	(0.42)	(1.79)	1.21	33.5%	51.3%	15.2%
RMBS												
Aaa	0.01	--	2.33	--	99.4%	0.6%	0.03	--	2.30	--	98.9%	1.1%
non-**Aaa**	(0.24)	(1.22)	1.33	33.6%	53.6%	12.8%	(0.27)	(1.30)	1.26	35.6%	48.7%	15.7%
Inv. Grade	(0.13)	(1.21)	1.41	18.1%	75.5%	6.4%	(0.13)	(1.29)	1.34	19.7%	71.2%	9.1%
BIG	0.04	(1.50)	1.09	16.5%	57.6%	25.9%	(0.33)	(1.42)	1.00	35.1%	47.9%	17.0%
CMBS												
Aaa	0.11	--	3.57	--	96.9%	3.1%	0.12	--	5.00	--	97.7%	2.3%
non-**Aaa**	(0.33)	(1.54)	1.84	33.6%	56.0%	10.4%	(0.37)	(1.33)	2.00	36.7%	57.3%	6.0%
Inv. Grade	(0.13)	(1.55)	2.22	19.1%	73.4%	7.5%	(0.12)	(1.25)	2.71	19.7%	75.6%	4.7%
BIG	(0.30)	(1.44)	1.00	24.3%	70.3%	5.4%	(0.59)	(1.89)	--	31.0%	69.0%	0.0%
ABS												
Aaa	0.05	--	1.86	--	97.6%	2.4%	0.01	--	1.00	--	98.6%	1.4%
non-**Aaa**	0.18	(1.36)	1.29	16.6%	52.2%	31.2%	(0.22)	(1.65)	1.53	30.3%	51.7%	18.0%
Inv. Grade	0.16	(1.29)	1.29	8.1%	71.7%	20.2%	(0.07)	(1.50)	1.53	18.1%	69.1%	12.8%
BIG	(0.29)	(1.58)	1.67	37.3%	45.1%	17.6%	(0.85)	(2.45)	1.00	37.0%	57.4%	5.6%
CDOs												
Aaa	0.04	--	2.00	--	98.2%	1.8%	0.11	--	1.69	--	93.5%	6.5%
non-**Aaa**	(0.02)	(1.64)	1.26	13.4%	70.7%	15.9%	(0.99)	(2.55)	1.41	46.7%	38.8%	14.5%
Inv. Grade	(0.00)	(1.68)	1.33	8.1%	81.9%	10.0%	(0.65)	(2.61)	1.46	30.6%	59.2%	10.2%
BIG	0.05	(1.33)	1.17	9.9%	74.8%	15.2%	0.02	(1.62)	1.47	27.7%	40.4%	31.9%

Below investment grade

Consistent with our expectation and last year's data, there are important distinctions in rating gaps for jointly-rated instruments depending on whether credits are rated **Aaa** vs. non-**Aaa**. For every sector/agency pair but one (ABS vs. S&P), the average gap is more negative for non-**Aaa** than for **Aaa** ratings. With only three exceptions (RMBS and CDOs vs. S&P and CDOs vs. Fitch), the rating gaps are more negative for below-investment-grade ratings than for investment-grade ratings.[16]

16 Because of the dearth of **B** and **Caa**-or-lower ratings, "below-investment-grade" refers mainly to Moody's **Ba**-rated instruments.

Unlike last year, there are no instances in which the Moody's rating is lower more than half the time. Also, there are no longer any categories for which the average gap exceeds one notch (though the non-**Aaa** CDO vs. Fitch category comes close).

IV. THE EFFECT OF SEASONING

We pointed out in last year's survey that one should expect a tighter relationship between joint ratings of new instruments than of seasoned credits because:[17]

- Rating methodologies change over time and
- Even if holding methodologies constant, ratings of an instrument from different agencies that were initially very close to each other may drift apart over time because of differences in monitoring practices.

Using the same vintage buckets that we defined last year, the number of observations per bucket on the International side are reported in *Table 8a* (Moody's/S&P joint ratings) and *8b* (Moody's/Fitch joint ratings). [18]

Table 8a:

Number of Observations per Vintage Bucket—Joint Moody's/S&P Ratings

Vintage (Years)	ALL SF	ALL SF IG	ALL SF BIG#	RMBS IG	RMBS BIG	CMBS IG	CMBS BIG	ABS IG	ABS BIG	CDO IG	CDO BIG
0-1	1,728	1,584	144	709	34	170	11	147	22	558	77
2-3	2,072	1,967	105	906	35	218	15	247	10	596	45
4-5	959	916	43	440	16	59	9	185	3	232	15
6+	396	364	32	151	--	46	2	109	16	58	14

Below-investment grade

Table 8b:

Number of Observations per Vintage Bucket—Joint Moody's/Fitch Ratings

Vintage (Years)	ALL SF	ALL SF IG	ALL SF BIG	RMBS IG	RMBS BIG	CMBS IG	CMBS BIG	ABS IG	ABS BIG	CDO IG	CDO BIG
0-1	1,033	955	78	580	31	132	9	112	17	131	21
2-3	1,338	1,255	83	728	40	170	15	182	19	175	9
4-5	914	877	37	391	21	32	5	154	3	300	8
6+	471	445	26	248	2	27	--	122	15	48	9

Because we again have few observations for International SF joint ratings relative to the U.S., many of the sector/rating/level vintage cells are sparsely populated, if at all. In general, the number of below-investment-grade joint ratings for individual SF sectors is too small to allow us to draw meaningful inferences.

The average rating notch differentials for each of these combinations are reported in *Table 9a* and *9b*. As before, a negative number indicates that the Moody's rating is lower than that of the other agency.

Table 9a:

Average Rating Notch Difference per Vintage Bucket—Joint Moody's/S&P Ratings

Vintage in Years	ALL SF	ALL SF IG	ALL SF BIG	RMBS IG	RMBS BIG	CMBS IG	CMBS BIG	ABS IG	ABS BIG	CDO IG	CDO BIG
0-1	(0.04)	(0.05)	0.08	(0.12)	0.15	(0.11)	(0.18)	0.08	0.00	0.01	0.12
2-3	(0.05)	(0.05)	(0.02)	(0.11)	0.06	(0.23)	(0.13)	0.19	(0.60)	0.01	0.09
4-5	(0.06)	(0.05)	(0.35)	(0.17)	(0.25)	0.19	(0.44)	0.21	0.00	(0.07)	(0.47)
6+	(0.08)	(0.05)	(0.34)	(0.17)	--	(0.13)	(1.50)	0.11	(0.56)	(0.02)	0.07

Table 9b:

Average Rating Notch Difference per Vintage Bucket—Joint Moody's/Fitch Ratings

Vintage in Years	ALL SF	ALL SF IG	ALL SF BIG	RMBS IG	RMBS BIG	CMBS IG	CMBS BIG	ABS IG	ABS BIG	CDO IG	CDO BIG
0-1	(0.16)	(0.14)	(0.47)	(0.13)	(0.55)	(0.26)	(0.67)	(0.03)	(0.59)	(0.14)	(0.19)
2-3	(0.08)	(0.07)	(0.31)	(0.09)	(0.30)	0.01	(0.47)	(0.07)	(0.47)	(0.04)	0.22
4-5	(0.47)	(0.48)	(0.32)	(0.08)	(0.10)	(0.06)	(0.80)	(0.14)	(1.00)	(1.22)	(0.38)
6+	(0.31)	(0.29)	(0.69)	(0.33)	0.00	(0.33)	--	(0.04)	(1.60)	(0.69)	0.67

± Fewer than 10 observations

17 See Section IV of the U.S. study for more on the rationale behind these assertions.

18 The vintage is measured as: 2007 minus the closing year of transaction. Thus, for example, the "0-1" bucket covers transactions that closed in 2006 and 2007.

Any tendency for rating notch gaps to increase with transaction age remains blurred for International SF rating pairs. The smallest gaps are not necessarily in the 0-1 year vintage and the widest gaps are generally not in the 6+ year bucket. At best, it can be said that there is a modest pattern of larger gaps for the two older vintage categories vis-à-vis the two newer vintage categories. .

The absence of a clear relationship between vintage and rating gaps may gain be attributable to the relatively benign SF environment in Europe relative to the U.S. Though both U.S. and European CDOs have suffered significant downgrades over the past decade, European SF has otherwise been free of some of the sectoral problems that have affected the U.S.[19] It is plausible that with less drift in ratings, differences in monitoring practices have not come into play outside the U.S. to the same degree than they have in the U.S., so that gaps in joint ratings for seasoned credits would tend to be narrower.

V. CONCLUSION

As we saw in both last year's examination of the ratings of jointly-rated International SF instruments, as well as in our updated U.S. SF rating study, the average rating differential for jointly-rated International SF securities are generally less than one notch, though with wide variations by sector and rating level. Again, Moody's International ratings have been, on average, a fraction of a notch lower in comparison to those of both S&P and Fitch.

Differences in rating alignment by sector have also persisted from last year to the present. Once again, for example, S&P's ratings of International jointly-rated ABS are, on average, about one-tenth notch *lower* than Moody's. Also, Fitch's ratings of International jointly-rated CDOs are, on average, about six-tenths of a notch higher than Moody's. As before, the rating gaps tend to be much larger for non-**Aaa** vs. **Aaa** Moody's ratings, or below-investment-grade vs. investment grade Moody's ratings.

Notwithstanding some relatively large rating differences for jointly rated SF securities, we expressed caution against extrapolating these findings to non-Moody's rated securities and to future rating relationships. The differences observed for jointly-rated securities would understate the true extent of divergent credit opinions since much of the differences go unobserved due to rating shopping. [20]

19 See "Default and Loss Rates of Structured Finance Securities: 1993-2006," Moody's Special Comment, April 2007. The current stress in U.S. subprime mortgage market is likely to show up in next year's reports.

20 Rating shopping in Structured Finance hides large systematic differences in rating opinions across agencies. For example, in the EMEA CMBS market, Moody's did not rate a significant number of non-**Aaa** tranches because the rating gaps generally would have been two notches or more. See the CMBS section for more on rating shopping within the EMEA CMBS market and increasingly within the EMEA RMBS market.

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