

## **Appendix to MICA Comments Regarding Discounts of Counterparty Benefits**

In their comments regarding OFHEO's proposed schedule of discounts on benefits received from credit enhancement counterparties, both GSEs concluded that the discounts were too severe in light of historical corporate bond performance. They also cited OFHEO's lack of consideration of potential recovery value on mortgage insurance benefits and servicing incomes as further potential offsets to the loss of potential offsets to loss.

Both GSEs cite Moody's Investors Service's "Historical Default Rates of Corporate Bond Issuers, 1920-1999" as well as a 1958 study by W.B. Hickman, "Corporate Bond Quality and Investor Experience", as evidence that actual corporate default rates were never as severe as assumed by OFHEO in its stress test assumptions.

Based on these observations the GSEs each propose different approaches for estimating a new schedule of discounts, but both conclude that counterparties with less than investment grade ratings and any counterparty not carrying a rating be granted the same discount as a "BBB" counter-party.

More specifically, Freddie Mac proposes a schedule that is three times the average historical default rate by corporate rating category based on averages from 1970-1999. Freddie Mac asserts that its own experience suggests that a 50% recovery rate is applied to further adjust the default rates. This proposed discount schedule would be applied only to the "Down-Rate Scenario". For the "Up-Rate Scenario," in view of Freddie Mac's assumption that both defaults and losses would be substantially lower, it suggests that discounts be reduced an additional 30%.

Based on its interpretation of historical corporate default rates, Fannie Mae opines that OFHEO's counterparty risk haircuts far exceed any historical worst case. Fannie Mae correctly notes that Railroads appear to have suffered substantially higher default rates than any other industry and may perhaps have been inappropriately rated prior to the

beginning of the Great Depression. Fannie Mae says that Industrial corporate defaults may be a more appropriate indicator and recommends a discount of 3% for "AAA", apparently because corporate issuers rated "AAA" in 1983 had a ten-year default rate of 3.02%. The remaining Fannie Mae recommended discounts by rating category are all arbitrary, but reflect a 50% recovery rate assumption. It strongly suggests that this recovery assumption be applied to credit enhancements where the borrower's payments for such coverage could be assumed by the GSEs. The GSE also claims that a seller/servicers' mortgage servicing rights serve as another form of offset and proposes that the value of such rights also be assumed to provide a 50% offset to loss of credit enhancements provided by such entities.

The GSE-proposed maximum discounts by rating category schedules are given in Table 1 below.

**Table 1. GSE Proposed Maximum Counter-Party Discount Schedules**

<b>Rating Category</b>	<b>Fannie Mae Proposal</b>	<b>Freddie Mac Proposal</b>	<b>OFHEO Proposal</b>
AAA	1.5%	1.2%	10%
AA	2.0%	1.5%	20%
A	4.0%	2.3%	40%
BBB	6.0%	6.6%	80%
<BBB	6.0%	6.6%	80%

### **Historical Default Rates**

Both GSEs made extensive references to the 1958 W. B. Hickman study that covered corporate bond default rates from 1900-1944. However, the references both GSEs make are to Table 36 on page 190 of the Hickman study. This table does indeed cover quadrennial default rates by individual investment grade categories. However, Table 36 references only large issues and not the entire universe of issues. Small issues, according to numerous other exhibits in the study, suffered substantially higher default rates within the same rating categories. Moreover, the assertion that the GSEs were able to convert four-year rates into ten-year default rates cannot have been accomplished without having access to ratings transition information to account for

downgrades over each of the four-year periods. Without such information it would be impossible to isolate succeeding period defaults to original starting year ratings. Since the Hickman study lacks the necessary transition detail, we find the GSEs calculations of estimated 10-year default rates to be unreliable.

Most troubling regarding the GSE quotations of the Hickman study is the lack of any mention of the performance of below investment grade entities and information on the performance of unrated corporate issuers. Indeed, on the page of the Hickman study previous to the one referenced by both GSEs there appears a Table 35 which clearly shows the relationship between large and small issues and especially between investment grade, non-investment grade and issues with no rating. Excerpts from that table are presented in the attached Table 2 and clearly shows that for all issues speculative grade performance was more than six and one-half times worse than investment grade and that those issues with no rating were not far behind. This information argues against the GSE points raised in support of OFHEO's original proposal to permit "BBB" haircuts for speculative grade and unrated counterparties.

The GSEs preferred to note in their comments that because railroad securities defaulted at such a horrendous rate that a better approximation might be to use only general industrial securities. However, even when considering only industrials, small issuers (not used in the GSE calculations) also tended to have worse performance. Pages 497 and 498 of the Hickman study clearly show that part of the problem for small issues may have been that these same issuers were also small in terms of asset size. (See attached Table 3 for excerpt from these pages.) Firms of smaller asset size experienced substantially higher default rates whether they were industrials or other types of operations. This observation is applicable to the treatment of unrated seller/servicers in the OFHEO RBC rule. With many unrated seller servicers holding few liquid assets beyond their servicing rights, Therefore, MICA believes it is inappropriate to grant "BBB" counterparty credit risk status to unrated counter-parties for safety and soundness reasons, as per our first comment letter.

The other major source of information regarding past performance of rated issuers is the Moody's historical corporate default series published annually for the past

several years. The latest report published in January 2000 covers default rates from 1920-1999. This series effectively measures long-run average default rates by rating category, by number of years since such rating identification, as well as the standard deviations about each average by elapsed time. Consequently, it surpasses the Hickman study in terms of being able to assess worst-case scenarios by proper rating category.

Freddie Mac used the Moody's historical default series and based its discount proposal on selected portions of the Moody's database focusing on 10-year average default rates for 1970-1999. Freddie Mac asserts that it is inappropriate to assume corporate default rates that approach the worst levels of the Depression since corporate default rates during the West South Central recession did not demonstrate the same level of defaults. Consequently, Freddie Mac uses the selected Moody's data for average default rates (1970-1999) and triples the selected average default rate. Freddie Mac suggests that a multiple of three is sufficient based on a comparison of BLE default rates compared to its own long-term average loan performance. Then, to determine the appropriate maximum haircut Freddie Mac assumes a 50% recovery rate on the inflated average default ratio.

MICA does not believe that Freddie Mac's use of selected Moody's data is appropriate. Corporate default rates in the mid-1980s indeed were not as severe as they were in the Depression, but only because the conditions of the West South Central did not occur nationwide. The role of the stress test is to assume that the stress conditions apply nationwide. Under those circumstances we believe it fair to assume that corporate bond default rates would indeed rise to near record highs. MICA also believes that the Freddie Mac approach of "gross-up" corporate bond default rates in a stress scenario using the relationship between BLE mortgage default rates and any long term average mortgage default rate is illogical. The worst case scenarios which OFHEO used in its modeling are the ones that are most appropriate for the stress scenario. The GSEs have presented no evidence to justify a different approach.

## Recovery Rates

Both GSEs reference the Moody's reports as the primary source for their reasoning that any estimate of discount rates should be further adjusted by the assumption of some recovery rate. Indeed, Moody's says that it uses the trading price of defaulted instruments as a proxy for the present value of the ultimate recovery on a defaulted bond. However, they note that such valuation varies with the seniority of the lien as well as with the stated security of the debt and variations in recovery rates for defaulted bonds are correlated with macroeconomic conditions and the aggregate risk of default. Information published by Moody's suggests that the GSE-proposed recovery rate is an unrealistic assumption in a harsh economic environment. As recently as 1999, prices on all types of defaulted bonds fell below 40% of their face value. Yet it would be hard to characterize 1999 as a troubled economic time period. In 1981, at the start of the worst economic recession since the Depression, prices on defaulted senior/unsecured bonds fell to less than 10% of their face value (see exhibit 20 on page 19 of Moody's January 2000 Report).. This recent data demonstrates how inappropriate it would be for OFHEO to assume any recovery rate—much less a 30% or 50% rate as recommended by Freddie Mac.

The Freddie Mac proposed 30% to 50% recovery rate on seller/servicer servicing rights is also inappropriate. During the mid-to-late 1980s when many seller/servicers had poorly performing portfolios, GSEs seized the servicing rights of such companies prior to their eventual collapse. In these cases, GSEs were not only unable to sell the servicing rights to compensate themselves for the loss of recourse benefits, they had to pay new servicers additional fees to enable the new contractors to service the seized portfolios without incurring operating losses. These examples also occurred in an interest rate environment that was less harmful to future streams of servicing revenues than the "down-rate" stress applied in the OFHEO model. Under a 600 basis point decline in interest rates, combined with substantial worsening in delinquency and default rates, it is doubtful that any positive value could be ascribed to such assets. In fact, one could easily argue that with the demise of many servicers, GSE expenses during the stress scenario should be increased to account for the need to pay

new servicers to continue to service the rising inventory of seized servicing portfolios.

Consequently, to assume any guaranteed recovery rate would seriously overstate the recovery potential for credit enhancements and thereby seriously understate the GSE's need for adequate capital. Moreover, while the GSEs have expressed concern with the complexity of the Model, the only prudent way to accommodate partial recoveries of defaulted credit enhancement benefits would require rather extensive additional modeling and retention of additional streams of information. As long as the bulk of credit enhancement benefits are provided from highly rated mortgage insurers, there is little additional benefit to be obtained from such additional modeling or assumptions regarding recovery rates.

MICA continues to support the level of haircuts for credit enhancement counterparties with different credit ratings and the spread between these haircuts as set forth in OFHEO's proposal, subject to the changes we suggested in our letter of March 10. Likewise, we believe neither GSE has presented a convincing reason for assuming a positive recovery rate under the stress scenario.

### **Unwanted Results**

In its earlier comments MICA highlighted the perverse results that are possible with the potential mishandling of mortgages in structured transactions. With regards to inadequate assumptions regarding default rates by rated entities, errors could lead not only to a false sense of security but to an erroneous application of risk-based pricing.

The largest variable in the determination of rating levels between issuers of corporate debt and, therefore, their probability of default is the level of capital held against the risks of the respective enterprises. In the realm of mortgage credit risk there is a consistent difference in the relative risk of default and the minimum capital required of AAA and AA-rated MI companies as compared to the same or lower rated non-mortgage insurance entities. If there is not an appropriate haircut differential which reflects the true ability of counterparties to absorb mortgage credit risk in a stress scenario, then the value of the difference in capital held by the higher rated MIs will be reduced. If either of the

GSE credit enhancement counterparty haircut proposals is adopted, the resulting RBC rule will cause a market shift in the share of credit enhancement towards lower rated entities. In the long run, the results of such a perverse incentive is not beneficial to either the consumer or the taxpayer. Therefore, an accurate portrayal of the ability of a credit enhancement counterparty to absorb mortgage credit risk in a stress scenario within the credit enhancement counterparty haircut scheme is essential to the safety and soundness of the GSEs.