

**October 25, 2010**

**By Electronic Mail**

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Office of the Comptroller of the Currency  
250 E Street, SW  
Washington, DC 20219

Ms. Jennifer J. Johnson  
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Board of Governors of the Federal Reserve System  
20th Street and Constitution Avenue, NW  
Washington, DC 20551

Mr. Robert E. Feldman  
Executive Secretary  
Federal Deposit Insurance Corporation  
550 17<sup>th</sup> Street, NW  
Washington, DC 20429

Department of the Treasury  
Office of Thrift Supervision  
Chief Counsel's Office  
1700 G Street, NW  
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**Re: Joint Advance Notice of Proposed Rulemaking Regarding Alternatives to the Use of Credit Ratings in the Risk-Based Capital Guidelines of the Federal Banking Agencies, OCC (Docket ID: OCC-2010-0016); Board (Docket No. R-1391); FDIC (RIN 3064-AD62); OTS (Docket ID: OTS-2010-0027) (the "ANPR")**

Moody's Analytics ("MA") appreciates the opportunity to provide comments to the Office of the Comptroller of the Currency, the Federal Reserve System, the Federal Deposit Insurance Corporation and the Office of Thrift Supervision (collectively, "**Banking Regulators**") on the Joint Advance Notice of Proposed Rulemaking ("**ANPR**") Regarding Alternatives to the Use of Credit Ratings in the Risk-Based Capital Guidelines of the Federal Banking Agencies.<sup>1</sup>

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<sup>1</sup> Moody's Investors Service ("**MIS**") is submitting a separate comment letter on the ANPR. MA and MIS are two legally and operationally separate subsidiaries of Moody's Corporation ("**MCO**"). MIS is the credit rating agency and registered Nationally Recognized Statistical Rating Organization. MA encompasses MCO's non-ratings businesses including data and

## **I. Automatic Capital Triggers Should be Limited**

The ANPR was published in response to Section 939A of the Dodd-Frank Wall Street Reform and Consumer Protection Act, which directs federal agencies to address the regulatory use of credit ratings. MA supports reducing the regulatory reliance on the ratings of nationally recognized statistical rating organizations (“NRSROs”) in the Banking Regulators’ risk-based capital standards. Similar to the view provided by Moody’s Investors Service (“MIS”), we believe that automatic triggers, regardless of whether they are ratings based, based on market signals or otherwise, can inadvertently harm markets by increasing rather than decreasing the risks in the system. Specifically, mechanical triggers can cause involuntary and mandatory reactions, such as augmenting capital cushions or divesting of exposures, with little room for discretion to consider more tempered responses. As such, while we support the Banking Regulators’ inquiry into over-reliance on ratings in regulation, we caution that risks to market safety and stability will remain so long as any alternative measuring system is used to trigger overly mechanistic responses.

This comment letter focuses on MA’s views of market-based tools. We would support the use of market-based tools as one of many tools, none of which should be used to obviate the need for analytical judgments. Such an approach allows for a certain amount of discretion in the oversight regime so that regulated entities and regulators can take more measured and particularized steps if and when necessary.

## **II. We believe Exposure-Specific Risk Weights are Superior to Risk Weights Based on Exposure Category**

In Question (2), the Banking Regulators seek comment on two approaches for differentiating credit risk: risk weights based on exposure category and exposure-specific risk weights. While there are trade-offs under either approach, we believe that a risk-based capital system that utilizes exposure-specific risk weights could measure exposure with more precision and may be less likely to lead to regulatory arbitrage than a system that simply recognizes the type of exposure. That is because, within asset categories, banks would be required to hold the same amount of capital regardless of asset quality. If the banks were required to hold the same amount of capital for a high risk asset as a low risk asset and the high risk asset yields more, the return on regulatory capital would be higher with the high risk portfolio. Such a scenario might encourage banks to take greater risks than they otherwise would and therefore might not foster prudent risk management. Thus, in our view, the approach of exposure-specific risk weights is more appropriate.

## **III. Many Good Tools Available to Differentiate Risk**

Questions (3) - (7) seek comment on the use of market-derived and accounting based risk tools for all categories of exposure. We note that the tradeoff between accuracy and stability is inherent in all credit risk models. There are many methods that can be used to adjust these tradeoffs (*i.e.*, greater stability, lower accuracy). If the Banking Regulators choose to use market-based and accounting based tools, we believe that the market would benefit from regulatory guidance on achieving the appropriate balance between accuracy and stability when using such tools.

Below we comment on all categories except for securitizations, which we discuss separately. As discussed in our endnotes, there is a deep history of research detailing the efficacy of tools based on market-derived and accounting based risk metrics<sup>1</sup>. Each tool has its own unique performance characteristics relative to accuracy and stability, and the related type 1 and type 2 errors.

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analytical tools for the structured finance market, risk management software for financial institutions, quantitative credit analysis tools, economic research and data services, and training and other professional services.

In addition, the cost of implementation and the coverage of the tools differs a bit. However, the tools are already widely used, which means that the implementation burden on banks and regulators from any of the tools could be modest. Additionally, many vendors produce similar but competing credit risk tools based on market and accounting information. Thus, the Banking Regulators would not need to endorse a particular vendor's product, but rather endorse the principle that market-based credit risk tools may be used as viable inputs for risk-based capital.

High performing (in terms of default prediction) credit risk metrics can be derived from the CDS, bond and equity markets. Such market-derived tools can all produce high accuracy ratios<sup>ii</sup>, but differ on other characteristics. Models based on CDS spreads (e.g. CDS-Implied EDF<sup>2</sup> credit measures and CDS-Implied ratings) may have the highest accuracy ratios but at the cost of low stability, that is a relatively higher rate of false positives. CDS spread based models extend to many of the largest issuers but due to the limited number of liquid contracts total coverage is low: roughly 1,500-2,500 issuers globally. Additionally, the CDS market, as with other markets, can be subject to bouts of illiquidity. Illiquidity can expose markets, or market segments, to potential manipulation which is another reason why we are concerned about the use of automatic triggers based on ratings or market signals.

Models based on bond spreads have greater coverage (approximately 3,000 – 4,000 issuers with the appropriate liquidity) and tend to be more stable than CDS-based models. Public firm (equity-based) models have the greatest coverage -- more than 30,000 firms -- and tend to produce high accuracy ratios while offering stability that is comparable to bond models. The CDS and bond markets cover all categories except securitization exposures, while the public firm models primarily cover the corporate sector. Accounting based credit tools offer the broadest coverage of borrowers because such tools can be applied to the many small borrowers that do not issue publicly traded securities. We believe that well-developed credit risk models based on accounting metrics could be appropriate for corporate exposures.

The evidence of efficacy varies by market. The CDS market is relatively new and therefore has the shortest history of accurate ranking and estimation of credit risk, despite being perhaps the most widely cited measure of credit risk. The bond market has a long history, but bond based credit models are not widely available. Public firm models, also called Merton Models or structural credit risk models, have the richest body of research confirming their utility as timely and accurate credit risk measures. As provided in the endnotes to this comment letter, there is a great deal of research that demonstrates that accounting-based credit risk tools are also effective.

#### **IV. The Use of Credit Risk Tools is as Important as the Selection of the Tools**

As discussed above, we believe that one of the key issues is not just the tools the Banking Regulators choose to use, but the way they are used. These credit risk tools can be applied in a number of ways. They can be used in combination with each other or in combination with more qualitative credit opinions. For example, an equity-based credit model could be used to check the reasonableness of a bank's own internal credit risk estimates. Moreover, beyond simply measuring the standalone risk of a given loan or asset, there

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<sup>2</sup> Moody's Analytics calculates Expected Default Frequency™ (EDF) -- an objective, forward-looking probability of default measure -- by compiling information about a firm's equity, leverage, industry, volatility, financial statement data, and historical defaults, and by performing an analysis using our advanced financial model.

are tools that estimate the incremental credit risk of an individual exposure on the overall portfolio. As discussed earlier, we believe that market stability is best served by the use of multiple tools for assessing credit risk, and that such tools be used as warning mechanisms that guide an institution's credit judgment, as opposed to serving as mechanical triggers. In other words, in our view, the various credit metrics that are available should be used to highlight exposures that demand deeper scrutiny, leaving room for discretion by both regulators and the regulated entity. Such discretion can provide for more nuanced responses that facilitate prudent management of risks and avoid exacerbating idiosyncratic and/or systemic weaknesses.

#### **V. Alternative Credit Risk Systems Could be Employed by the Banking Industry**

In our view, market-derived credit risk tools would allow Banking Regulators the ability to implement other credit risk systems. For example, a system based on probability of default and loss-given-default might offer a more accurate view of potential losses. Such an approach could also support a more familiar ordinal credit risk ranking system. The key point is that the regulators have choices with market-derived credit risk measures, which can be used as one of many tools while preserving the need for discretion in the system.

#### **VI. Securitizations are a Special Case**

We believe that the market-based risk tools mentioned above are not currently suitable for securitized transactions. In our view, securitizations should be analyzed in several distinct steps with the appropriate quantitative tools<sup>iii</sup>. Multiple vendors offer tools covering each step of the process, and the Banking Regulators could allow institutions to select their preferred vendors. Again, we believe the focus should not be on which tools are used, but how these tools are applied. Consistent (not identical) inputs might allow banks to produce reliable estimates of cash flows that reflect the risk inherent in asset- and mortgage-backed securities. Because user-defined assumptions such as default, unemployment and interest rates can have a significant impact on the projections produced by such cash flow models, we believe regulators would be well-served to assess each institution's scenarios, and possibly require that similarly exposed institutions apply similar scenarios for the purpose of developing a consistent view of risk across banks. For example, Banking Regulators could use macroeconomic assumptions developed by their own staff or the consensus forecasts of outside experts to judge the reasonableness of any individual bank's model inputs. Similarly, in our view, the mapping of the cash flow modeling exercise to capital requirements also needs to be reasonably consistent across banks.

Sincerely,

A handwritten signature in black ink, appearing to read "Mark Almeida", with a long horizontal flourish extending to the right.

Mark E. Almeida  
President  
Moody's Analytics

## Endnotes

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<sup>i</sup> Below please find research detailing the efficacy of Moody's Analytics own market and accounting based credit risk models.

### **Probability of Default Models**

Modeling Default Risk

<http://www.moodyskmv.com/research/files/wp/ModelingDefaultRisk.pdf>

CDS-implied EDF™ Credit Measures and Fair-value Spreads

[http://www.moodyskmv.com/research/files/CDS\\_Implied\\_EDF\\_Credit\\_Measures\\_and\\_Fair\\_Value\\_Spreads\\_PUBLIC.pdf](http://www.moodyskmv.com/research/files/CDS_Implied_EDF_Credit_Measures_and_Fair_Value_Spreads_PUBLIC.pdf)

Validating the Public EDF™ Model Performance during the Credit Crisis

[http://www.moodyskmv.com/research/files/wp/Validating\\_Public\\_EDF\\_Model.pdf](http://www.moodyskmv.com/research/files/wp/Validating_Public_EDF_Model.pdf)

An Empirical Examination of the Power of Equity Returns vs. EDFs™ for Corporate Default Prediction

<http://www.moodyskmv.com/research/files/Viewpoint%20Equiry%20Returns%20v.%20EDFs.pdf>

### **Bond, CDS and Equity-Implied Rating Models**

CDS-implied EDF™ Credit Measures and Fair-value Spreads

[http://www.moodyskmv.com/research/files/CDS\\_Implied\\_EDF\\_Credit\\_Measures\\_and\\_Fair\\_Value\\_Spreads\\_PUBLIC.pdf](http://www.moodyskmv.com/research/files/CDS_Implied_EDF_Credit_Measures_and_Fair_Value_Spreads_PUBLIC.pdf)

Predicting Defaults with Bond Spreads and Bond-Implied Ratings

[http://v3.moodys.com/viewresearchdoc.aspx?docid=PBC\\_111966](http://v3.moodys.com/viewresearchdoc.aspx?docid=PBC_111966)

Market Implied Ratings Transitions: Performance during the Credit Crisis

[http://v3.moodys.com/viewresearchdoc.aspx?docid=PBC\\_125867](http://v3.moodys.com/viewresearchdoc.aspx?docid=PBC_125867)

Moody's Market Implied Ratings; Description, Methodology, and Analytical Applications

[http://v3.moodys.com/viewresearchdoc.aspx?docid=PBC\\_106083](http://v3.moodys.com/viewresearchdoc.aspx?docid=PBC_106083)

Differentiating Risk Signals through Momentum Signals

[http://v3.moodys.com/viewresearchdoc.aspx?docid=PBC\\_114748](http://v3.moodys.com/viewresearchdoc.aspx?docid=PBC_114748)

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## Accounting Based Risk Models

Moody's KMV RiskCalc® V3.1 United States

[http://www.moodyskmv.com/research/files/wp/RiskCalc\\_v3\\_1\\_US.pdf](http://www.moodyskmv.com/research/files/wp/RiskCalc_v3_1_US.pdf)

Level and Rank Order Validation of RiskCalc v3.1 United States

[http://www.moodyskmv.com/research/files/wp/RiskCalc\\_v3\\_1\\_US\\_LevelValidation.pdf](http://www.moodyskmv.com/research/files/wp/RiskCalc_v3_1_US_LevelValidation.pdf)

Bank Failures Past and Present: Validating the RiskCalc V3.1 U.S. Banks Model

[http://www.moodyskmv.com/research/files/RiskCalc\\_V3\\_1\\_US\\_Banks\\_Validation\\_Bank\\_Failures.pdf](http://www.moodyskmv.com/research/files/RiskCalc_V3_1_US_Banks_Validation_Bank_Failures.pdf)

## Portfolio Analysis

An Overview of Modeling Credit Portfolios

[http://www.moodyskmv.com/research/files/wp/Overview\\_Modeling\\_Credit\\_Portfolios.pdf](http://www.moodyskmv.com/research/files/wp/Overview_Modeling_Credit_Portfolios.pdf)

Implications of PD-LGD Correlation in a Portfolio Setting

[http://www.moodyskmv.com/research/files/Implications\\_of\\_PD\\_LGD\\_Correlation\\_in\\_a\\_Portfolio\\_Setting.pdf](http://www.moodyskmv.com/research/files/Implications_of_PD_LGD_Correlation_in_a_Portfolio_Setting.pdf)

<sup>ii</sup> The accuracy ratio is a common metric used to gauge the discriminatory power of different rating systems. Like a correlation statistic, the accuracy ratio ranges from 0 to 1.

<sup>iii</sup> Moody's Analytics offers award-winning products that integrate performance data, credit models, cash flow models, economic data, etc. into a single platform for investors, issuers, servicers and trustees.