OLIVER WYMAN

NEW YORK INDEPENDENT SYSTEM OPERATOR

Financial Services

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# NYISO Credit Risk Enhancement Credit Scoring Methodology

# FAQ Supplement

# This document provides more detailed answers to several key questions raised in respect of adopting a new rating tool to supplement NYISO's existing policies for extending unsecured credit to qualifying MPs (1/5)

- **Question 1:**
  - How does this tool compare with the results of other tools?
- **Answer 1:**
  - There are at least four analyses Oliver Wyman performed which address this:
    1. PowerStat of overall scorecard (which measures the level of default predictivity) compared favorably to Oliver Wyman benchmarks of PowerStats observed in other rating tools (Oliver Wyman's experience is based on having built literally hundreds of customized rating tools for lending and credit granting institutions of all sizes);

    2. PowerStats of individual factors, while less directly relevant than that of the overall scorecard, are themselves observed to have a strong level of predictivity. The factors chosen all had PowerStats which compared favorably to those observed in analyses of individual factors used in a variety of lending institutions' scorecards;

    3. The distribution (or stratification) of public borrowers/MPs across scores as computed by the scorecard is qualitatively very similar to that exhibited by public agency ratings. This implies a strong correspondence in relative ranking of credit risk between the scorecard and S&P/Moody's (refer to the January 16 CPTF Presentation);

    4. Oliver Wyman explicitly compared the PowerStats of CDS (one of the top-weighted factors in the scorecard) to agency ratings 12, 9, 6, and 3 months before default (refer to the January 16 CPTF Presentation) and the CDS beat the agencies each time.

## This document provides more detailed answers to several key questions raised in respect of adopting a new rating tool to supplement NYISO's existing policies for extending unsecured credit to qualifying MPs (continued 2/5)

- **Question 2:**
  - Do the items used in the tool accurately predict entities that are showing signs of financial hardship?
- **Answer 2:**
  - Yes. As explained previously, Oliver Wyman examined the predictiveness of a number of different variables as well as different combinations of those found to be predictive in determining the factors which were included in the final scorecard. The final scorecard reflects the most predictive combination Oliver Wyman was able to devise. In addition to the PowerStat analyses referenced above, which demonstrate the scorecard's accuracy (the PowerStat measures how well the tool distinguishes companies with good credit from those that eventually default), Oliver Wyman looked at specific companies that were known to have deteriorated significantly in 2007-08. The scorecard scores for those companies worsened, as expected, as the companies moved closer to default.

- **Question 3:**
  - Can a healthy entity be subject to a reduction in its level of unsecured credit without being distressed or vice versa, i.e. an unhealthy entity not receive a reduction that would be appropriate?
- **Answer 3:**
  - This is unlikely but possible with any credit assessment tool. However, Oliver Wyman and NYISO believe that the robustness of the scorecard makes it less likely that an entity would receive an inappropriate adjustment under the scorecard than under the current methodology. Further, the level of deterioration in creditworthiness required to generate a reduction in unsecured credit under the scorecard is set at such a point that it would be highly unlikely for an entity's score to 'mistakenly' cross over into the more severe reduction buckets.

## This document provides more detailed answers to several key questions raised in respect of adopting a new rating tool to supplement NYISO's existing policies for extending unsecured credit to qualifying MPs (continued 3/5)

- **Question 4:**
  - The answers Market Participants have gotten from the NYISO and from Oliver Wyman regarding the predictiveness of the new scorecard have not been accompanied by detailed data or facts supporting these claims. Does this exist and, if so, why can't Market Participants see it?
- **Answer 4:**
  - In addition to the PowerStat information provided earlier, Oliver Wyman has given the NYISO extensive data that supports the predictiveness of the new scorecard; however, Oliver Wyman's methodology is proprietary intellectual capital and the NYISO cannot provide this detail to each Market Participant for independent verification. The NYISO can assure you, however, that it has been thoroughly vetted and reviewed. Also, the NYISO would be happy to provide any Market Participant with individualized scorecards, customized as requested by the Market Participant using alternative financial and qualitative data, which would demonstrate the potential variability in the Market Participant's score under different scenarios.
- **Question 5:**
  - Market Participants would like to see some sensitivity analysis on the tool. How far would the assessment items have to move before another threshold is reached?
- **Answer 5:**
  - It is important to reiterate that there are not pre-defined 'threshold values' for each factor which correlate to a 20% reduction, or 50%, etc. The tool works by considering all factors jointly. Thus a very bad 'factor A' value could be compensated for by having very good factor B, C, and D values.
  - The NYISO has provided scorecards to those Market Participants who have requested them using varying qualitative factors (i.e. best, worst, mid and neutral), which allowed those Market Participants to assess the qualitative scorecard sensitivity. Additionally, updated quarterly scorecards were provided to those Market Participants upon request. This too provided added sensitivity.

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- **Question 6:**
  - How do Market Participants know that the figure used as the expected loss (EL) ratio is appropriate?
- **Answer 6:**
  - The EL target (0.36%) was set based on examining the change in MP portfolio risk from 2007 to 2008 (and represents an approximate average of the two years) and on comparing it to benchmark long-term average EL values used by lending institutions.

- **Question 7:**
  - Could the NYISO provide the agency rating data for the Market Participants that fall in Bucket 2?
- **Answer 7:**
  - As of April 2009, 4 MPs were BBB, 1 A- and 1 A.

- **Question 8:**
  - How many entities were tested (public, private, municipality)?
- **Answer 8:**
  - In order to perform the analysis Oliver Wyman began by developing a list of Market Participants to study. The list for the sample was created using multiple research sources including NYISO Market Participants (including those with observed bad debt losses), market participants from other ISOs studied in previous Oliver Wyman client work, additional market participants from other ISOs and Internet scanning. In total, approximately 250 public, 60 private and 15 municipalities were identified.

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- **Question 9:**
  - How is predictability measured? By actual company failures?
- **Answer 9:**
  - The purpose of scorecard development is to identify a set of factors that together are the most predictive of default. Oliver Wyman conducted a single factor analysis to form the foundation of the scorecard building process by identifying factors that on a standalone basis are predictive of default risk. The final scorecard was comprised of an array of factors which show strong predictive power in the single factor analysis. These factors span several measures of a company's financial health: market based indicators, performance and profitability, leverage, debt and liquidity. Oliver Wyman analyzed a total of 31 predictive factors, 8 of which were selected based on predictive power and expert opinion. Each demonstrated the following: (1) a clear directional relationship with default, (2) a high R-squared, and (3) a high PowerStat.
  - Yes, Oliver Wyman's data set used actual company defaults.

- **Question 10:**
  - Does the tool beat the rating agency predictions for companies?
- **Answer 10:**
  - It is well known that agencies achieve ratings stability utilizing a "through the cycle" methodology. This requires a separation of permanent and cyclical components of default risk. Through-the-cycle ratings are more indicative of long-term default probabilities at the expense of short-term accuracy. Consequently, agency ratings are not designed to estimate short-term default risk.
  - Additionally, as stated in Answer 1, Oliver Wyman explicitly compared the PowerStats of CDS to agency ratings 12, 9, 6, and 3 months before default (refer to the January 16 CPTF Presentation) and the CDS beat the agencies each time.