

AGR and its Importance to Bankruptcy Prediction

Audit Integrity's new AGR Bankruptcy Risk Model, introduced in September 2009, has been shown to be a highly effective tool in predicting bankruptcy risk. The AGR Bankruptcy Risk Model has an out-of-sample accuracy ratio of 91%. This is more than 20 percentage points higher than the Altman Z-score, 14 percentage points higher than the Ohlson model, and 5 percentage points higher than the Merton distance to default (DD) model. The higher accuracy ratio of the AGR Bankruptcy Risk Model substantially reduces false positives, allowing the user to focus on the most relevant companies.

- 1) The percentile for the probability of bankruptcy: the AGR Bankruptcy Risk Model provides sufficient advance warning regarding companies' risk of bankruptcy. Using 21 actual bankruptcies over the last 12 months beginning November 2008, the AGR Bankruptcy Risk Model correctly predicted (in the lowest two deciles) the majority of companies within the 12-month bankruptcy prediction time horizon. 12 months prior to bankruptcy, 16 out of 21 (76.2%) companies were ranked in the lowest two deciles; 6 months prior to bankruptcy, 19 of 21 (90.5%) of companies were ranked in the lowest two deciles; and 3 months prior to bankruptcy, 20 of 21 (95.2%) of companies were ranked in the lowest two deciles.

Correctly identifying these recent bankruptcy cases with a lead of 12 months further validates the effectiveness of the AGR Bankruptcy Model. Continual monitoring of companies is required to be protected against developments which may lead to an impending bankruptcy. Market participants need to avoid risk and take pre-emptive action, and the AGR Bankruptcy Risk Model provides significant vigilance in this respect, and in a timely and forward-looking manner. Please see Table 1.

TABLE 1.

| | | 12 MONTHS PRIOR | | 6 MONTHS PRIOR | | 3 MONTHS PRIOR | | ON FILE DATE | | |
|--|--------|----------------------------------|---------------------------------|----------------------------------|---------------------------------|----------------------------------|---------------------------------|----------------------------------|---------------------------------|-------------------------|
| company | ticker | AGR bankruptcy probability | AGR bankruptcy percentile | AGR bankruptcy probability | AGR bankruptcy percentile | AGR bankruptcy probability | AGR bankruptcy percentile | AGR bankruptcy probability | AGR bankruptcy percentile | bankruptcy file date |
| California Coastal Communities, Inc. | CALC | 9.3% | 4 | 8.0% | 7 | 5.1% | 9 | 4.7% | 7 | 10/27/2009 |
| Fairpoint Communications, Inc. | FRP | 1.4% | 20 | 15.4% | 3 | 9.3% | 5 | 9.7% | 2 | 10/26/2009 |
| Accuride Corporation | AURDQ | 8.7% | 3 | 15.1% | 3 | 22.9% | 1 | 13.8% | 1 | 10/8/2009 |
| Edge Petroleum Corp. | EPEXQ | 0.9% | 21 | 6.2% | 13 | 3.9% | 12 | 4.1% | 7 | 10/2/2009 |
| Velocity Express Corporation | VEXPQ | 5.7% | 6 | 12.7% | 7 | 7.0% | 8 | 5.6% | 5 | 9/24/2009 |
| Lear Corporation | LEARQ | 5.3% | 6 | 7.3% | 5 | 18.6% | 4 | 21.2% | 1 | 7/7/2009 |
| Building Materials Holding Corporation | BLGM | 7.9% | 4 | 12.8% | 2 | 27.0% | 2 | 16.1% | 2 | 6/16/2009 |
| Six Flags, Inc. | SIXFQ | 13.9% | 2 | 9.9% | 3 | 17.0% | 5 | 12.3% | 4 | 6/13/2009 |
| Pacific Ethanol Inc | PEIX | 2.1% | 14 | 6.9% | 10 | 12.1% | 7 | 9.9% | 7 | 5/18/2009 |
| TXCO Resources Inc. | TXCOQ | 0.0% | 76 | 0.3% | 40 | 0.8% | 31 | 1.1% | 27 | 5/18/2009 |
| Energy Partners, Ltd. | EPL | 1.5% | 17 | 3.0% | 13 | 3.7% | 15 | 4.3% | 11 | 5/1/2009 |
| AbitibiBowater Inc. | ABWTQ | 14.6% | 1 | 34.0% | 1 | 43.5% | 1 | 32.7% | 1 | 4/16/2009 |
| General Growth Properties, Inc | GGWPQ | 5.5% | 6 | 15.9% | 2 | 22.8% | 2 | 20.1% | 2 | 4/16/2009 |
| Aventine Renewable Energy Holdings, Inc. | AVRNQ | 0.3% | 30 | 0.7% | 24 | 2.7% | 13 | 7.0% | 12 | 4/8/2009 |
| Idearc Inc. | IDARQ | 0.8% | 21 | 2.6% | 12 | 3.6% | 10 | 7.9% | 10 | 3/31/2009 |
| Meruelo Maddux Properties, Inc. | MMPIQ | 3.2% | 9 | 2.2% | 14 | 4.0% | 9 | 6.2% | 10 | 3/27/2009 |
| Charter Communications, Inc. | CHTRQ | 14.6% | 1 | 14.1% | 2 | 14.3% | 2 | 27.8% | 2 | 3/27/2009 |
| Chemtura Corporation | CEMJQ | 3.2% | 9 | 1.7% | 16 | 7.5% | 5 | 30.4% | 2 | 3/18/2009 |
| Trump Entertainment Resorts, Inc. | TRMPQ | 10.4% | 2 | 14.2% | 1 | 31.7% | 1 | 31.8% | 1 | 2/17/2009 |
| Pilgrim's Pride Corporation | PGPDQ | 2.7% | 8 | 2.7% | 11 | 8.6% | 3 | 28.3% | 1 | 12/1/2008 |
| VeraSun Energy Corporation | VSUNQ | 0.1% | 38 | 1.1% | 19 | 4.5% | 7 | 8.5% | 5 | 11/1/2008 |

| | | | | | |
|--|---|-------|-------|-------|-------|
| | % of companies rated <= 20th percentile | 76.2% | 90.5% | 95.2% | 95.2% |
|--|---|-------|-------|-------|-------|

- 2) The probability of bankruptcy: the AGR input in the AGR Bankruptcy Risk Model is an important and relevant input. Its importance is underscored by the results of tests in which the AGR percentiles were altered to the highest possible (100th percentile) in order to reflect a hypothetical Conservative AGR company. From our data set of 15 sample companies with Very Aggressive AGR ratings and greater than 5% bankruptcy probability, the tests showed that the AGR input accounted for an average of 80% (or 3.97 percentage points) improvement in bankruptcy probability.

This test illustrates that the transparency of financial statements is an integral part to bankruptcy analysis, and is separate and independent from the other AGR Bankruptcy Risk Model inputs (namely, accounting and market-related inputs based on the Ohlson Model and the Merton DD model). This confirms that, independent of the existence of certain fundamental and market signals, the accuracy and reliability of financial statements (as represented by AGR) is an important factor in measuring bankruptcy probability. Please see Table 2.

TABLE 2.
**TEST: HYPOTHETICAL CONSERVATIVE AGR WITH
AGR PERCENTILE = 100**

| Company | Ticker | Period Ending | AGR Rating | AGR Percentile | Bankruptcy probability | Bankruptcy percentile | NEW Bankruptcy probability | Difference from CURRENT AGR Bankruptcy Model, percentage | Difference from CURRENT AGR Bankruptcy Model, percentage points |
|--------------------------------------|--------|---------------|-----------------|----------------|------------------------|-----------------------|----------------------------|--|---|
| CapLease, Inc. | LSE | 30-Jun-09 | Very Aggressive | 8 | 8.7% | 97 | 4.92% | 77% | 3.77 |
| Cumulus Media Inc. | CMLS | 30-Jun-09 | Very Aggressive | 10 | 10.2% | 98 | 5.90% | 73% | 4.32 |
| Delta Air Lines, Inc. | DAL | 30-Jun-09 | Very Aggressive | 3 | 8.1% | 97 | 4.44% | 83% | 3.68 |
| Eastman Kodak Company | EK | 30-Jun-09 | Very Aggressive | 1 | 14.2% | 99 | 7.98% | 78% | 6.20 |
| Ford Motor Company | F | 30-Jun-09 | Very Aggressive | 8 | 9.2% | 97 | 5.19% | 76% | 3.96 |
| Headwaters Incorporated | HW | 30-Jun-09 | Very Aggressive | 9 | 5.7% | 95 | 3.20% | 78% | 2.50 |
| Macquarie Infrastructure Company LLC | MIC | 30-Jun-09 | Very Aggressive | 4 | 8.3% | 97 | 4.58% | 82% | 3.74 |
| Mesa Air Group, Inc. | MESA | 30-Jun-09 | Very Aggressive | 5 | 8.8% | 97 | 4.89% | 80% | 3.91 |
| NovaStar Financial Inc. | NOVS | 30-Jun-09 | Very Aggressive | 1 | 12.0% | 98 | 6.58% | 82% | 5.38 |
| Sunrise Senior Living, Inc. | SRZ | 30-Jun-09 | Very Aggressive | 10 | 7.7% | 96 | 4.41% | 76% | 3.33 |
| Textron Inc. | TXT | 4-Jul-09 | Very Aggressive | 6 | 7.5% | 96 | 4.21% | 79% | 3.33 |
| The McClatchy Company | MNI | 28-Jun-09 | Very Aggressive | 5 | 9.9% | 97 | 5.51% | 79% | 4.37 |
| The Talbots, Inc. | TLB | 1-Aug-09 | Very Aggressive | 1 | 6.0% | 95 | 3.18% | 88% | 2.79 |
| UTStarcom, Inc. | UTSI | 30-Jun-09 | Very Aggressive | 3 | 11.6% | 98 | 6.47% | 80% | 5.16 |
| Zale Corporation | ZLC | 30-Apr-09 | Very Aggressive | 4 | 6.8% | 96 | 3.73% | 83% | 3.10 |

| | | |
|------------------------------|------------|-------------|
| Average differences = | 80% | 3.97 |
|------------------------------|------------|-------------|

The Audit Integrity Accounting & Governance Risk (AGR®) Model

Audit Integrity is the leading provider of accounting and governance risk analysis on public companies. Through the forensic study of the factors behind fraud, Audit Integrity's proprietary quantitative modeling effectively detects and measures fraud and transparency-related risks in over 12,000 publicly traded corporations in North America and Europe. The proprietary Accounting & Governance Risk (AGR) rating is a measure of corporate integrity based on forensic accounting and corporate governance metrics, and is an indicator of aggressive corporate behavior which can put stakeholders at risk.

The AGR Bankruptcy Risk Model is based on the AGR percentile, the Ohlson multiple logistic regression (logit) model, and Merton distance to default model. The combination of these three models, which are not highly correlated, was found to be significantly more effective than any of the three models used on a stand-alone basis. Against the most widely used bankruptcy model, the Altman Z-Score, the AGR Bankruptcy Risk Model results have been more than 20 percentage points higher in predicting bankruptcy, based on accuracy ratios, a common validation technique. Over the past 10 years, companies in the bottom 10% of AGR Bankruptcy Risk Model scores accounted for 76% of all bankruptcies; companies in the bottom 20% accounted for 91%, versus 39% and 64% for the Z-Score, respectively. U.S. industrial companies with \$100 million or more in assets are rated by Audit Integrity (approximately 85% of the rated population). Financial companies and utilities, and European industrial companies are not rated at this time.



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