



Out-of-Sample Performance of the
Cash Flow Analytics Proprietary Model
2008

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This note reviews the performance of the Cash Flow Analytics proprietary model during 2008. The model was initially developed in 2006 and back tested using historical data from 1998 to 2005. Consequently, the results reported here represent an out-of-sample test of the predictive ability of the model. Similar out-of-sample tests were performed on data for 2006 and 2007. For a more detailed description of the development of the model and the initial backtesting of the model please see the white paper, which is available at www.cashflowanalytics.com.

Our model uses proprietary data from Cash Flow Analytics to create a score ranging from 0 to 7 for each stock in our database. The seven signals used in our model are designed to capture the five broad categories of financial performance and position: cash flow, profitability, operating efficiency, financial leverage, and valuation. Initial tests of the model conducted using historical data from 1998 to 2005 indicated that the model was effective for all market valuations and most effective in selecting small market capitalization stocks (those with market caps below \$1.4 billion). For these small-cap stocks the high score firms outperformed the benchmark in 79.3% of the months examined and generated abnormal returns of up to 13.3% per year.

Out-of-sample tests using data from 1/1/2008 to 12/31/2008 show that the model continues to generate excess returns. Table 1 presents average abnormal returns to the model, where the abnormal returns are calculated by subtracting the size-based benchmark returns from the actual returns. High score firms in the smallest size quintile generate an abnormal return of 3 basis points per day, while low score firms generate a negative abnormal return of approximately 4 basis points per day. Table 2 shows that compounded over one year this amounts to abnormal performance of approximately 7.85% for high score firms and -9.59% for low score firms.

The model also performs well for firms in other size quintiles. High score firms generated annualized abnormal returns ranging up to 10.60% and low score firms generated annualized abnormal returns of up to -9.59%.

In sum, the Cash Flow Analytics proprietary model produced strong abnormal returns during 2008.

Table 1. Abnormal Daily Returns to High and Low Cash Flow Analytics™ Score Firms

Portfolio	High Score Abnormal Returns	Low Score Abnormal Returns	High Score – Low Score Returns
Quintile 1	0.03%	-0.04%**	0.07%
Quintile 2	0.02%	-0.04%	0.06%
Quintile 3	0.00%	-0.01%	0.01%
Quintile 4	-0.01%	-0.02%	0.01%
Quintile 5	0.04%	-0.00%	0.04 %

This table reports the average daily return to high and low Cash Flow Analytics™ score firms. High score firms are those with model scores of 6 or 7. Low score firms are those with model scores of 0 or 1. The sample period spans the period from January through December 2008. Results are reported by market capitalization quintile. Abnormal returns are calculated with respect to an equally weighted portfolio of all stocks within the same quintile. ***, **, and * represent statistical significance at the 1%, 5%, and 10% levels respectively.

Table 2. Annualized Abnormal Returns to High and Low Cash Flow Analytics™ Score Firms

Portfolio	High Score	Low Score	High Score – Low Score
Quintile 1	7.85%	-9.59%**	19.28%
Quintile 2	5.17%	-9.59%	16.32%
Quintile 3	0.00%	-2.49%	2.55%
Quintile 4	-2.49%	-4.92%	2.55%
Quintile 5	10.60%	0.00%	10.60%

For reference purposes, this table reports annualized abnormal returns to high and low Cash Flow Analytics™ model scores for those average daily returns found to be statistically significant in Table 1. ***, **, and * represent statistical significance at the 1%, 5%, and 10% levels respectively. NS designates that the average daily return was not statistically significant.