

The Effects of Best's Rating Changes on Insurance Company Stock Prices

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ABSTRACT

In this article, the authors examine whether A.M. Best & Co. rating changes convey significant new information to the capital markets. The objective is to determine whether the agency monitors and repackages existing information or processes and disseminates previously unavailable information. The study documents statistically insignificant stock price reactions to both rating upgrades and downgrades. These results suggest that A.M. Best & Co. is most accurately described as a monitor of publicly available information. It provides a certification of insurer financial soundness to policyholders, but it is not an agency that reveals new information to the financial markets.

A.M. Best & Co. (Best) is placed uniquely among the various rating agencies that evaluate insurance firms. For decades, it has held a leadership position in rating insurers.¹ Occasionally, Best raises or lowers previously assigned ratings. The objective of this study is to determine, from a capital markets perspective, whether Best monitors and repackages existing information or processes and disseminates previously unavailable information.

In order to distinguish between the two roles, this study examines the effect of Best rating changes on the common stock prices of publicly traded

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¹ In recent times Standard & Poor's and Moody's have started providing claims paying-ability ratings for some insurance firms. Ratings are provided also by Duff and Phelps and Weiss.

insurers. The flow of information that has potential bearing on the financial strength of an insurer is continuous, while the rating categories are discrete and the changes are made only periodically. Therefore, if the rating changes are driven by information previously unavailable to the capital market, the results should show a significant stock price reaction associated with announcements of rating changes.

The existence of rating agencies such as Best is justified even if they only serve to monitor and repackage publicly available information. For example, Wakeman (1981) states that ratings are firm quality measures that are convenient, comprehensible and inexpensive. Further, in the context of Wakeman (1981), within the insurance industry, rating agencies monitor managerial decision making and reduce the information asymmetry between management and consumers. Ongoing monitoring by a rating agency such as Best could result in identification of managers who make decisions that are not in the best interests of policy owners. Additionally, certification by an independent agency may be of particular importance within the insurance industry. Insurers raise funds from creditors primarily in product markets rather than in direct financial markets. Consequently, for some companies the lack of an acceptable Best rating could pose a serious threat in selling insurance products.

The study documents statistically insignificant stock price reactions to both rating upgrades and downgrades. These results suggest that Best is most accurately described as a monitoring agent of publicly available information. The results are inconsistent with the idea that Best rating changes convey significant new information to the capital markets. The finding of no stock price reaction could imply that demand in the insurance product market is unaffected by Best rating changes. While the tests in this study cannot distinguish these cases, it can be argued that the capital markets anticipate the Best rating changes. Discussions with executives at Best and Conning & Co. found intuitive support for this result.² Both organizations felt that the information that could affect insurance company stock prices reaches the financial markets in advance of the Best rating change.

Best's Rating Process

Best tracks over 3500 insurers and rates their financial strength on a scale ranging from A+ (superior) to C (fair).³ In addition, there are ten categories of "not assigned" ratings, which signify poor performance or a lack of sufficient data. The stated objective of Best's rating system is to evaluate factors that affect the overall performance of an insurer and then provide an

² Conversations with Best personnel occurred numerous times in 1988, 1989 and 1990. Conversations with Conning & Co. personnel took place in the fall of 1988 and the spring of 1991.

³ The rating process is stated in the foreword in each of the annual editions of Best's.

opinion of the company's relative financial strength and ability to meet its contractual obligations.

A quantitative and qualitative procedure is used to determine a company's financial strength. The quantitative analysis involves a normative comparison of a company's profitability, leverage and liquidity with Best's predetermined standards. Best's standards are based on actual industry performance. Qualitative analysis by Best includes an evaluation of a company's spread of risk, the amount and soundness of reinsurance, the quality and diversification of investments, the adequacy of reserves and management expertise.

A rated company must submit annual financial statements to Best by March 1. Shortly thereafter Best's rating and financial size categories are assigned. Notification of the rating, financial size category and a preliminary proof of the rated company's report and financial exhibits is sent to the chief executive officer. The rated company is then permitted up to 15 days to discuss the rating with Best prior to publication of the rating and report.

Best indicates that it maintains a close working relationship with the management of each insurer it rates in order to determine top management character and operating philosophy. Information on managerial expertise plays an important role in Best's continual evaluation of the performance of an insurer. This relationship supports the view that Best has access to information that is not publicly available.

Best provides its full service subscribers with a publication entitled the *Advanced Ratings Release* (ARR). ARR was started as a service in 1976 and it is mailed to the full service subscribers approximately four weeks before the publication of *Best's Insurance Management Reports*, which is the customary source of insurer ratings for general subscribers. Companies are also required to submit financial reports at the end of each quarter. These are reviewed by Best for a potential rating change. Companies are notified of any proposed change in the assigned rating and subscribers receive the rating change information through Best's weekly and monthly publications.

The rating procedure used by Best, during the period under study, is similar to that used by other rating agencies. For example, Standard and Poor's suggests that it has access to information that is probably not publicly available. The "review process includes discussions with management, visits to company premises and forecasts of income statement and balance sheet data provided by the management. . ." (Holthausen & Leftwich, 1986). Standard & Poor's credit overview provides for "an elaborate review process in which management is warned of forthcoming rating changes, given a chance to present counter-arguments and even has an opportunity to appeal the proposed rating. . ." (Holthausen & Leftwich, 1986).

Hypotheses and Empirical Tests

The null hypothesis is that Best rating changes are not associated with significant common stock price reactions. The alternative hypothesis is

based on the study by Holthausen and Leftwich (1986) that examines the stock price effects of corporate bond rating changes. They document a significantly negative price reaction at the press release date of Standard & Poor's bond downgrades. No evidence of abnormal stock price performance upon the announcement of an upgrade is found.⁴ Holthausen and Leftwich (1986) offer the following two explanations for the asymmetric response to upgrades versus downgrades:

First, the loss function of the rating agency may not be symmetric. Consequently, upgrades may not be as 'timely' as downgrades. Second, management's incentives to release information may not be symmetric. For example, Chambers and Penman (1984) document that, on average, 'good news' accounting earnings reports are 'early', whereas 'bad news' earnings reports are late.

The similarities between the Standard & Poor's rating process, as described in Holthausen and Leftwich (1986), and the Best rating process motivate the hypotheses tested in this study. The analysis and results of Holthausen and Leftwich (1986) suggest the alternative hypothesis of a stock price decline associated with rating downgrades and a positive or insignificant response evoked by the upgrades.

Failure to reject the null hypothesis would imply that Best does not provide new information to financial markets. The absence of a significant abnormal price reaction to a rating change would signal that the rating agency provides only a certification service.

Standard event study methods are used for measuring the common stock valuation effects of rating change announcements⁵. The study employs the comparison period (mean-adjusted returns) methodology developed by Masulis (1980)⁶. Brown and Warner (1980, 1984) present evidence supporting the power of this procedure. The robustness of the results are checked by employing the equally weighted market-adjusted returns and the market model abnormal returns procedures. The mean-adjusted returns method is appropriate because the sample contains both NYSE and NASDAQ listed stocks⁷. This method avoids the problem of selecting the appropriate market index. The estimation period in all cases was 255 days,

⁴ Katz (1974), Grier and Katz (1976) and, Ingram, Brooks and Copeland (1983) find results consistent with Holthausen & Leftwich (1986). However, Pinches and Singleton (1978) and Weinstein (1977) find no evidence of a common stock price response to bond rating changes.

⁵ Rating announcements and the corresponding dates are identified from Best's *Advance Ratings Release*. The principle subsidiaries of stock listed insurers are identified from Best's *Insurance Reports*. Cross matching of the two lists provides the final sample.

⁶ The comparison period comprises 255 days, beginning 61 trading days after the event. The average daily return in the comparison period is assumed to be the 'normal' rate of return for the stock. The standard t-statistic of the difference in means of two independent samples (the announcement period examined and the comparison period) is used.

⁷ There were no missing returns for any of the NASDAQ listed firms in the event period examined. Therefore, the results are not affected by an infrequent trading bias for NASDAQ stocks.

beginning 61 days after the event date. The date of the mailing of the ARR to full service subscribers is treated as the event date.⁸

Table 1
Annual Frequency Distribution of Best
Rating Changes, by Exchange Listing (1980-1988).

UPGRADES		
<i>Year</i>	<i>NYSE/AMEX</i>	<i>NASDAQ</i>
1980	1	6
1981	2	0
1982	3	3
1983	3	1
1984	3	1
1985	2	2
1986	1	0
1987	1	1
1988	2	0
TOTAL NUMBER	18	14
DOWNGRADES		
1980	1	1
1981	1	0
1982	1	2
1983	2	1
1984	6	1
1985	7	5
1986	0	2
1987	1	1
1988	3	9
TOTAL NUMBER	22	22

Discussion of Results

Table 1 shows the annual frequency distribution of Best rating changes by exchange. Event time clustering is not a problem. The common stock price responses to ratings downgrades and upgrades by Best are presented in Table 2. The results in Table 2 reveal no evidence of abnormal performance in stock prices at the announcement of downgrades or upgrades in Best ratings. The results are insignificant with both parametric and non-parametric tests⁹. These findings indicate that Best acts as a certification

⁸ The authors are indebted to the board of A.M. Best & Co. for releasing proprietary information. No other source could be found for the *Advance Ratings Release* mailing dates.

⁹ The non-parametric test is the generalized sign test. This differs from the simple sign test in that the fractions of positive and negative returns are determined by the fractions observed in the estimation period instead of being fixed at 0.5. The proportion of negative returns is greater than 0.5 in the estimation period. Therefore, in Table 2 a ratio of 19:13 (positive to

agency and does not reveal previously unavailable information on insurer financial soundness to the financial markets.¹⁰ These findings are inconsistent with the results of Holthausen and Leftwich (1986) for corporate bond rating changes, even though Standard and Poor's and Best use a similar rating process.

Table 2
Percentage Cumulative Average Abnormal Returns
Associated with A.M. Best & Co. Rating Changes,
1980-1988.

Event Period	Cumulative Average Prediction Error (CAPE)	t- Statistic	Positive: Negative
Panel 1: Rating downgrades (n=44)			
(-60,-41)	-2.84%	-1.70*	19:25
(-40,-21)	-0.31%	-0.19	23:21
(-20, -1)	-0.51%	-0.31	19:25
(0, +1)	-0.17%	-0.32	16:28
(+2,+20)	1.37%	0.84	27:17
(+21,+40)	0.08%	0.05	19:25
(+41,+60)	-1.86%	-1.11	19:25
Panel 2: Rating upgrades (n=32)			
(-60,-41)	1.59%	0.95	21:11
(-40,-21)	-0.87%	-0.52	16:16
(-20, -1)	0.06%	0.04	19:13
(0, +1)	-0.13%	-0.26	13:19
(+2, +20)	1.33%	0.81	12:20
(+21,+40)	-1.01%	-0.60	17:15
(+41,+60)	-0.75%	-0.45	15:17

*significant at the 0.05 level, using a one-tailed test

Several reasons can be offered to explain the certification finding of a Best rating change. First, the regulatory environment of the insurance industry and, in particular, the regulatory focus on the financial soundness of insurers may preempt the revelation of new information by Best. The information may quite possibly reach the financial markets in advance of a Best rating change.

A second explanation for a certification role is that the subscribers of Best are insurance products oriented. Support for this orientation can be found in the introduction of the 1983 edition of *Best's Insurance Reports*, Property and Casualty edition, which states:

negative returns) is significant, whereas a ratio of 12:20 is not. The generalized sign test is described in Sprent (1989).

¹⁰ The results are robust to the choice of event study research methods used.

So much interest in Best's Rating system has been manifested by our clients—including mercantile and manufacturing concerns, public utility companies and others purchasing large amounts of insurance, banks and trust companies, insurance agents, brokers and insurance companies— . . .

Best's clients seem to be purchasers, manufacturers or sellers of insurance products, not just stock insurer investors. Insurance company investment analysts are probably not relying on Best as an information source but are obtaining their own industry data directly from the companies they follow. Conversations with Conning & Co. indicate that obtaining financial data is not a problem; the difficulty lies in the interpretation of the data and marrying it with other information such as company strategy, competitor strategy, gossip, etc. In other words, the financial information that is used for product certification by Best can be obtained elsewhere and financial information alone is not sufficient for the analysis of stocks. The rating changes could affect the product market but it is possible that financial markets anticipate these effects.

A third explanation for a certification role is that Best ratings information is not received by the capital markets in a timely manner. Best rates over 3,500 insurance companies in the property-liability and life-health industry. The problem of rating such a large number of insurers and the primary focus on annual financial data may reduce the information content of a Best rating change to the capital markets. Best recognizes that it must provide timely financial information to its subscribers and in the introduction to *Best's Insurance Reports*, Life and Health edition, 1989, it indicates that several methods to provide individual insurer information more quickly have recently been instituted.

Conclusions

A.M. Best & Co. rating changes are found to convey no new information to the capital markets. The absence of stock price reactions in response to rating changes suggests that the rating changes are a non-event in terms of new information conveyed to the market. Both the parametric and nonparametric tests are statistically insignificant. The results are consistent with the idea that A.M. Best & Co. only fulfills a certification role for the insurance product market. Future research should be undertaken to determine if the insurance product market reacts to a Best rating change and if the results found in this study hold true for rating changes made by other insurer rating organizations such as Standard & Poor's.

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