Media Coverage and the Cross-Section of Stock Returns in Switzerland

Master Thesis

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Executive Summary

Problem

Media coverage plays a prominent role in dispersing company-related information to a broad readership, especially to individual investors. Even Napoleon Bonaparte (1769-1821) was aware of the effect of media on individuals when he said: "Four hostile newspapers are more to be feared than a thousand bayonets." From today's point of view, technology has allowed newspapers, magazines and television broadcasters to disseminate information at a rate and quantity never imagined before. According to the Bundesamt für Statistik (2007), about 5 million newspaper copies are distributed on a daily basis in Switzerland, thereby reaching 60% of the nation's population. If online subscriptions and multiple readers per copy are considered in addition, the actual readership of the printed press is even larger and certainly far broader than other sources of corporate information such as analyst reports or voluntary disclosures (Fang and Peress (2009)).

Given the publication delay of the printed media, it is unlikely that the information contained therein is genuine news. According to the efficient market hypothesis, the information in the newspapers should not affect security pricing at all. However, in recent years, there has been a fast growing literature on the relationship between media and the stock market. Thus, this thesis examines whether investors can earn risk-adjusted excess returns by sorting stocks according to their media coverage in the Swiss market.

Method

The data sample consists of 313 companies listed on the Swiss Performance Index (SPI) between January 1, 1998 and December 31, 2007. This thesis uses standard portfolio formation techniques to analyze the relationship between media coverage and stock returns. The data basis for the portfolio formation is thus a proprietary Swiss media coverage index, consisting of various newspapers and magazines in the three major ethnolinguistic areas. For each month, the stocks in the sample are divided into either no-, low-, or high-media coverage groups. Stocks with no newspaper coverage are identified first; the remaining stocks, having at least one newspaper article per month, are divided into a low and a high coverage group using the median of the weighted sum of articles published. The portfolios are rebalanced monthly. Thereafter a zero-investment portfolio (also known as a long-short spread portfolio) is computed that buys the no-coverage portfolio and sells the portfolio containing the high-coverage stocks. To adjust for risk, the portfolios are regressed on market, size, value, momentum and liquidity risk factors for the Swiss market. The portfolios are splitted into subsamples sorted by size, market-to-book, operating profit, price, analyst coverage and various other characteristics to identify in which subset the media effect is strongest.

After determining the risk-adjusted excess return, the thesis further tests whether the return differential reflects a fair compensation for systematic risks not captured by standard benchmark models. Therefore a two-stage cross-sectional regression is conducted that estimates factor betas in the first stage and the factor risk premiums in the second stage. Standard errors in the second stage regression are computed using the Fama and MacBeth (1973) procedure.

Results

This thesis finds that stocks not covered by the media earn significantly higher returns than stocks that are strongly covered, even after accounting for well-known risk characteristics. A portfolio of stocks with no media coverage outperforms a portfolio of stocks with high media coverage by 0.57-0.86% per month (equally-weighted portfolio) and 0.20-0.61% per month (value-weighted portfolio). The return difference is mostly found among small stocks and stocks that reflect a high degree of information incompleteness. For these sub-samples, stocks with no media coverage outperform those with high media coverage by an economically large 0.77-1.69% per month after risk adjustments.

The rational-agent framework provides two main explanations for the media effect: the illiquidity and the investor recognition hypothesis. However, this thesis only finds evidence for the latter, indicating that in informationally incomplete markets, investors only know about a subset of the available securities. As a consequence, less well-known stocks of firms with smaller investor bases need to offer higher returns in order to compensate investors for being imperfectly diversified. Newspapers play a dominant role in dispersing information to a broad readership. Even if they do not supply genuine news, they increase the degree of investor recognition of a stock and thus lower the information risk. Additionally, a two-stage cross-sectional regression shows strong support for media coverage being a priced risk factor. The main implication of this is that ceteris paribus an increasing amount of media coverage lowers the cost of equity for a given firm.

Evaluation

The study confirms the suggestion that no-coverage stocks in general earn higher returns than high-coverage stocks in order to compensate investors for bearing information risk. This further implies that a company's cost of capital is negatively related to the amount of media coverage. Accordingly, market participants and company executives should recognize that information dispersion plays a crucial role and that media coverage as well as a firm's public relations efforts could pay off in terms of generating investor recognition and reducing the cost of capital.