News Coverage Premium: A Tale of Two Papers

Sangmin Simon Oh
University of Pennsylvania

Follow this and additional works at: https://repository.upenn.edu/wharton_research_scholars
Part of the Business Commons

https://repository.upenn.edu/wharton_research_scholars/156

This paper is posted at ScholarlyCommons. https://repository.upenn.edu/wharton_research_scholars/156
For more information, please contact repository@pobox.upenn.edu.
News Coverage Premium: A Tale of Two Papers

Abstract
This study attempts to reconcile two papers that provide contradictory findings on the cross-sectional relation between news coverage and expected stock returns. I first identify elements of their research designs that may be responsible for their discrepancies and then directly examine the existence of news coverage premium using Ravenpack data. I find that stocks with little news coverage earn higher returns than stocks with high news coverage even after controlling for well-known risk factors, but stocks with zero news coverage do not seem to outperform stocks with high news coverage. My findings suggest that the news coverage premium may be sensitive to the time period of the analyses as well as the presence of market crashes.

Keywords
NewsCoverage, TextualAnalysis, MarketReaction, InvestorAttention

Disciplines
Business
NEWS COVERAGE PREMIUM: A TALE OF TWO PAPERS

By

Sangmin “Simon” Oh

An Undergraduate Thesis submitted in partial fulfillment of the requirements for the

WHARTON RESEARCH SCHOLARS

Faculty Advisor:

Catherine M. Schrand

Celia Z. Moh Professor, Accounting

THE WHARTON SCHOOL, UNIVERSITY OF PENNSYLVANIA

MAY 2017
News Coverage Premium: A Tale of Two Papers *

Sangmin Simon Oh†

May 1, 2017

Abstract

This study attempts to reconcile two papers that provide contradictory findings on the cross-sectional relation between news coverage and expected stock returns. I first identify elements of their research designs that may be responsible for their discrepancies and then directly examine the existence of news coverage premium using Ravenpack data. I find that stocks with little news coverage earn higher returns than stocks with high news coverage even after controlling for well-known risk factors, but stocks with zero news coverage do not seem to outperform stocks with high news coverage. My findings suggest that the news coverage premium may be sensitive to the time period of the analyses as well as the presence of market crashes.

JEL Classification: G02, G10, G12, G14
Keywords: News Coverage, Textual Analysis, Market Reaction, Investor Attention.

* I thank my advisor Professor Catherine Schrand for her guidance and mentorship throughout the research process and Dr. Utsav Schurmans for his support during the Wharton Research Scholars (WRS) Program.

† Correspondence: The Wharton School, School of Engineering and Applied Science, University of Pennsylvania. Email: sangmino@wharton.upenn.edu
1 Introduction

Transmission of information plays a critical role in shaping investors’ and managers’ expectation of the future, which has significant implications for the pricing of assets. In particular, mass media outlets such as newspapers and online aggregators play an important role in disseminating information, and the recent advent of the electronic platforms have substantially increased the amount and scope of information provided, especially to individual investors.

Recent literature on such relation between media and the market has focused on two particular aspects of the media. The first strand of research focuses on the content of news to evaluate directional market responses to such information. Many studies support the notion that qualitative information embedded in news stories contributes to the mispricing of stocks – Tetlock (2007), Tetlock, Saar-Tsechansky and Mackassy (2008), Garcia (2013), and Karabulut (2013) are further examples in this literature.

The second strand of research, to which I contribute, focuses on the arrival of information and the subsequent increase in investor attention to asset markets. Merton’s (1987) theory predicts that attention can increase market valuations directly by alleviating information frictions that prevent investors from holding assets with little relevant information. Also, Barber and Odean (2008) show that individual investors are net buyers of attention-grabbing stocks and further argue that individuals’ buying pressure temporary pushes up the price of such salient stocks, followed by price reversal in the subsequent period.

Fang and Peress (2009) is the first paper to document the cross-sectional relation between news coverage and stock returns. Using firm-specific news coverage in major newspapers, they find that stocks without news coverage earn 3% higher annualized returns than stocks with above-median news coverage. Further studies using more direct proxies for investor attention, such as Da, Engelberg, and Gao (2011), Kim and Meschke (2011), and Engelberg, Sasseville and Williams (2012) seem to support their finding that heightened investor attention decreases future stock returns.

On the contrary, Heston and Sinha (2015), a recent paper which examines stock return
predictability using a more granular set of news data from Thomson Reuters, find that stocks without news coverage actually underperform stocks with news coverage. To distinguish the effect of news arrival from the effect of news content, they control for “neutral news” as defined by their textual analysis.

This study investigates this discrepancy in the sign of the so-called “news coverage premium” between Fang and Peress (2009) and Heston and Sinha (2015). I first present a detailed comparison of the two papers and identify potential sources of discrepancy that may be responsible. The analysis suggests that a combination of differences in firm coverage, time period, types of news items, and filter for news relevance contributes to the alarmingly different results.

To provide further evidence on the existence and the magnitude of news coverage premium, I use an alternate source of news analytics called Ravenpack, which is different from the datasets employed in the two papers. Ravenpack analyzes all articles on the Dow Jones Newswire and delivers article-level metrics to its users with very minimal latency. For this study, I use Ravenpack’s relevance score to filter out relevance news items, and the appropriateness of this relevance threshold has been verified by previous studies.¹

I find that stocks with low news coverage earn significantly higher future returns than stocks that with high coverage. In the period January 2000 to November 2016, a portfolio of stocks in the bottom decile of monthly news counts outperforms a portfolio of stocks in the top decile by over 3% per year following portfolio formation, even after adjusting for market, size, book-to-market, and momentum. This return premium for stocks with little news coverage is economically significant and also consistent with Merton’s (1987) theory.

On the other hand, I find that stocks with zero news coverage fails to provide any premium over stocks with high news coverage. A closer examination reveals that the strategy seems to perform well prior to the 2008 financial crisis, whereas it fails during the crisis and post-crisis. Also, in the last several years of the period, the high-coverage portfolio actually seems to produce better returns than the no-coverage portfolio, further contradicting the findings in

Fang and Peress (2009).

In short, my results seem to indicate a premium associated with little news coverage, which is consistent with Fang and Peress (2009) – I find no substantial evidence supporting Heston and Sinha (2015). There still exists, however, a glaring difference in my results between the performance of the low-minus-high coverage strategy and the zero-minus-high coverage strategy. As potential explanations, I provide three hypotheses: first, the two market crashes between 2000 and 2016 may have changed the way investors perceive news; second, the advent of electronic news platforms and subsequent explosive growth in the quantity and scope of coverage may have rendered firms without any news too risky; and third, the introduction of more transparent accounting and firm disclosures may have reduced the premium associated with no news coverage.

The remainder of the paper proceeds as follows. In section 2, I provide detailed comparative analysis of the two aforementioned papers. Section 3 contains a description of the data, and empirical results are gathered in section 4. In section 5, I discuss possible explanations for my results, and section 6 concludes.

2 A Tale of Two Papers

Fang and Peress (2009) and Heston and Sinha (2015) both examine the cross-sectional relation between news coverage and stock returns, but they reach different conclusions regarding the effect of news coverage. Fang and Peress (2009) use firm-specific news coverage in the New York Times, USA Today, Wall Street Journal, and Washington Post and find that stocks not covered by the media earn significantly higher future returns than stocks that are heavily covered, even after accounting for widely accepted risk characteristics.

Each month, they divide the stock sample into no-news, low-news and high-news coverage groups. The stocks with no newspaper coverage are first identified, and the remaining stocks are divided into the low- and high-coverage groups using the median number of articles. In essence, the “high-coverage” group in their setup is an above-median coverage group. Then
they compute the return in the following month on a zero-investment portfolio that longs the stocks with no news coverage and shorts the stocks in the “high-coverage” group.

From the time-series of returns obtained from the computation, they find that a portfolio of stocks with no news coverage outperforms a portfolio of stocks with high news coverage by almost 3% per year, after adjusting for market, size, value, momentum, and liquidity. They also find that return difference is particularly strong among small stocks, stocks with low analyst coverage, stocks primarily owned by individuals, and stocks with high idiosyncratic volatility.

Given these observations, the authors also test two possible explanations for the no-coverage premium. First, they hypothesize that market frictions are severe enough to prevent arbitrageurs from exploiting the mispricing. An alternate hypothesis they pose is that stocks with lower investor recognition need to provide higher returns to their holders as compensation for imperfect diversification. After testing both hypotheses empirically, they conclude the no-coverage premium is more relevant to the second hypothesis.

Heston and Sinha (2015) seek to isolate the effect of news tone from the effect of news coverage, and in doing so they find that firms without news have lower future returns than firms with news. They use over 900,000 news articles tagged with firm identifiers from Thomson-Reuters from 2003 to 2010 and estimate a regression of stock returns with lags:

\[ r_{i,t} = \alpha_{k,t} + \gamma_{k,t} \cdot 1_{\text{news},t-k} + \beta_{k,t} \text{Positive}_{i,t-k} + \delta_{k,t} \text{Negative}_{i,t-k} + \epsilon_{i,t} \]

where \( r_{i,t} \) is the return on stock \( i \) in week \( t \), \( 1_{\text{news},t-k} \) is a dummy variable for firms with news over the given lag \( k \), and \( \text{Positive}_{i,t-k} \) and \( \text{Negative}_{i,t-k} \) are evaluation of sentiment in the news articles. From this regression, they find a positive coefficient for \( \gamma_{k,t} \), concluding that this contradicts the well-known adage that “no news is good news.”

Given the two papers that present seemingly contradictory findings, I have identified four specific aspects of their research designs that may be responsible for the discrepancy:

1. **Firm Coverage.** Fang and Peress (2009) examine all companies listed on the New York Stock Exchange (NYSE) and 500 random companies from the NASDAQ. Heston and Sinha
(2015), on the other hand, study all firms associated with the data in Thomson Reuters.

2. **Timeline.** Fang and Peress (2009) examine stock returns from January 1993 to December 2002, whereas Heston and Sinha (2015) study the time period from 2003 to 2010. It is interesting to note that the two papers do not have any overlapping time periods. Also, a significant portion of the latter’s time period encompasses the 2008 financial crisis, the performance during which may potentially drive their findings.

3. **News Source.** Fang and Peress (2009) use the monthly number of newspaper articles about a stock obtained from the New York Times, USA Today, Wall Street Journal, and Washington Post. Heston and Sinha (2015), on the other hand, employ a much broader set of news provided by Thomson Reuters and aggregate news at a daily and weekly level. The Thomson Reuters database encompasses a wide range of news items including interviews, news alerts, and simple snapshots of the market condition.

4. **News Filters.** Fang and Peress (2009) retain news stories whose relevance score, provided by LexisNexis, is greater than 90%. Heston and Sinha (2015) retain news stories whose relevance score, calculated by their algorithm, is above 35%. Furthermore, Heston and Sinha (2015) exclude news stories linked to more than one article in the sample, whereas Fang and Peress (2009) do not have any such filters. The low relevance score employed in Heston and Sinha (2015) is particularly concerning, since this increases the likelihood of their results being driven by noise than the actual news coverage signal.

From the comparison above, it is very difficult to pinpoint to the element that may be responsible for the different findings. To verify the existence of a news coverage premium independently, I use the Ravenpack data and conduct similar analyses. I focus on all stocks in the NYSE from January 2000 to November 2016 - I cannot go further back than 2000 because the Ravenpack data starts from January 2000. From the Ravenpack data, I retain news items whose relevance score, provided by Ravenpack, is greater than 90% and follow the portfolio-based approach employed by Fang and Peress (2009).
3 Data and Descriptive Statistics

3.1 Ravenpack

The provider of news analytics for this study is Ravenpack, which analyzes all articles on the Dow Jones Newswire and delivers article-level metrics on more than 28,000 publicly traded companies. It includes a wide variety of news items, including full articles, news flashes, press releases and tabular materials provided from industry and business publishers, national and local news, and even blog sites. Ravenpack also provides in-house analytics on each news item, such as the composite sentiment score (CSS) and the event novelty score (ENS).

One of the metrics computed and provided by Ravenpack is the relevance score, which indicates the relevance of an article to the company. It takes values ranging from 0 (least relevant) to 100 (most relevant) – low relevance score implies that the company is mentioned but plays an unimportant role, whereas high relevance score implies that the company plays an important role in the main context of the story.

Ravenpack recommends “filtering for relevance greater than or equal to 90 as this helps reduce noise in the signal.” Beschwitz, Keim and Massa (2013) also verify the appropriateness of the threshold by examining the response of stock prices to articles with different relevance scores. Based on their analysis as well as Ravenpack’s recommendation, I only focus on news articles whose relevance scores are greater than 90.

To get the longest coverage possible, I use the Dow Jones Edition of Ravenpack, which contains articles from Dow Jones Newswires, regional editions of the Wall Street Journal, Barron’s and MarketWatch. We do not use the full edition, which also contains articles from web publishers and aggregators as well as press releases and regulatory disclosures, to get the maximum time period coverage as possible, since the Dow Jones edition is available from 2000 whereas the full edition starts from 2007.
3.2 News Coverage

Figure 1 shows the percentage of NYSE stocks that have at least one news item in the Ravenpack data. From January 2000 to November 2016, on average 65.8% of all common stocks in NYSE have at least one news article in the given month.

We also observe that the percentage of stocks with news increases substantially during the first 6 years of our sample period. One reason for this increase may be the passing of the Sarbanes-Oxley Act of 2002 (SOX) which mandated strict reforms to improve financial disclosures from corporations and prevent accounting fraud. The more transparent information environment may have led to a more active coverage of these firms by the media. Another hypothesis may be related to the widespread use of various electronic media platforms, but I defer an empirical test of these conjectures for future research.

Fang and Peress (2009) examine the determinants of media coverage and find that firm size has an overwhelming effect on news coverage. With Ravenpack data, firm size is also significantly
correlated with the market capitalization of the firm. To illustrate with an example, figure 2 shows the time series of monthly news counts for Pfizer, whose market cap at the end of 2016 was 202.92 billion USD and Trinity Industries, whose market cap at the end of 2016 was 3.97 billion USD. We also note from the graph that there exist considerable fluctuations in the monthly news counts for each firm, indicating the potential usefulness of incorporating a time-series signal in investigating the news coverage premium.²

Figure 2: Monthly News Count for Pfizer and Trinity Industries

<table>
<thead>
<tr>
<th>Date</th>
<th>Pfizer Inc</th>
<th>Trinity Industries</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000.09</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2004.01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2007.04</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010.08</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013.11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2017.03</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

We also examine the pooled distribution of monthly news counts in our sample period, excluding the stocks without any news coverage. As shown in Figure 3, the distribution of news items is heavily skewed to the right. This implies that a portfolio constructed from the bottom decile of monthly news counts would mostly be composed of stocks with only one or two news items. The distribution of the news counts is also very similar across different years as well.

²Note that the peak in the monthly news count for Pfizer in May 2014 corresponds to the Pfizer’s famous takeover bid for AstraZeneca that involved the negotiations with the UK government
3.3 Firm-Level Data

I consider all domestic, primary stocks in the NYSE. Closed-end funds, Real Estate Investment Trusts (REITs), trusts, American Depository Receipts (ADRs) and foreign stocks are excluded from the analysis. Since I require information on the number of shares outstanding, the sample consists of all companies with coverage on both the Center for Research in Security Prices (CRSP) and COMPUSTAT (Active and Research) files.

Furthermore, I note Fang and Peress’s (2009) concern regarding the bid-ask bounce – the media effect could be driven by bid-ask bounce, which affects the measurement of small stock returns. Therefore, I also exclude from my sample stocks with prices below $5.
4 News Coverage and the Cross-Section of Stock Returns

In this section, I focus on the cross-sectional relation between news coverage and stock returns. I initially focus only on stocks with news coverage and consider the return differential between stocks with little coverage and stocks with high coverage. Then I repeat the analysis by including all the stocks and examining the differential between stocks with zero coverage and stocks with above-median coverage, thereby closely following the methodology in Fang and Peress (2009).

4.1 Low Coverage vs. High Coverage

To examine the effect of news coverage, I form long-short portfolios of stocks sorted by news coverage. I first exclude the stocks without any news items in a given month in constructing this strategy. At the beginning of every month from January 2000 to November 2016, I rank stocks with at least one news item on the basis of the inverse of monthly news counts so that the top decile contains stocks with the smallest number of news items, and the bottom decile contains stocks with the largest number of news items. The ranked stocks are then assigned to one of ten decile portfolios, and all stocks are equally weighted within a given portfolio.

After portfolio formulation, I compute the return in the following month on a zero-investment portfolio that longs the top decile and shorts the bottom decile. Repeating this computation every month yields a time series of returns for this portfolio. This time-series is then regressed on four factor models: the market model, the Fama-French (1993) model, the Carhart (1997) four-factor model, and a five-factor model that includes the Pastor-Stambaugh (2003) liquidity factor, which allows us to control for stocks’ exposure to the aggregate liquidity risk. If the return difference between low-coverage and high-coverage is fully explained by known factors, then the estimated alpha should be significant. Moreover, given that this setup is a natural extension of the portfolio-based approach employed by Fang and Peress (2009), I expect the results to be consistent.

Table 1 reports the baseline result in this multivariate setting. The table confirms that there is a no-news coverage premium even even after controlling for market, size, book-to-market, and
momentum. The significance goes away when the Pastor-Stambaugh liquidity factor is included in the regression. The alpha in both the three-factor and the four-factor model is 31 basis points per month, compared to 51 basis points in the market model. This indicates that about 40% of the alpha relative to the market model is absorbed by commonly known risk factors such as value, momentum, and size. These observations are consistent with the regression results in Fang and Peress (2009).

Table 1: Media-Related Trading Profit: Low Coverage minus High Coverage

<table>
<thead>
<tr>
<th></th>
<th>Model 1: Market</th>
<th>Model 2: Fama-French</th>
<th>Model 3: Carhart</th>
<th>Model 4: PS Liquidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>mkt - rf</td>
<td>-0.067</td>
<td>-0.14***</td>
<td>-0.14***</td>
<td>-0.14***</td>
</tr>
<tr>
<td></td>
<td>(-1.86)</td>
<td>(-4.73)</td>
<td>(-4.34)</td>
<td>(-4.27)</td>
</tr>
<tr>
<td>smb</td>
<td>0.41***</td>
<td>0.41***</td>
<td>0.41***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(9.91)</td>
<td>(9.71)</td>
<td>(9.51)</td>
<td></td>
</tr>
<tr>
<td>hml</td>
<td>0.26***</td>
<td>0.26***</td>
<td>0.29***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(6.36)</td>
<td>(6.26)</td>
<td>(6.74)</td>
<td></td>
</tr>
<tr>
<td>und</td>
<td>-0.0038</td>
<td>-0.0086</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(-0.15)</td>
<td>(-0.33)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>liq</td>
<td></td>
<td></td>
<td>0.091**</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(2.68)</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>0.0051**</td>
<td>0.0031*</td>
<td>0.0031*</td>
<td>0.0023</td>
</tr>
<tr>
<td></td>
<td>(3.15)</td>
<td>(2.34)</td>
<td>(2.34)</td>
<td>(1.71)</td>
</tr>
<tr>
<td>Observations</td>
<td>202</td>
<td>202</td>
<td>202</td>
<td>191</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.017</td>
<td>0.372</td>
<td>0.372</td>
<td>0.408</td>
</tr>
<tr>
<td>Adjusted $R^2$</td>
<td>0.012</td>
<td>0.363</td>
<td>0.359</td>
<td>0.392</td>
</tr>
</tbody>
</table>

$t$ statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

The loadings on the risk factors provide further insight into the nature of this no-coverage premium. The positive and significant coefficients on the size factor (SMB), the value factor (HML) and the liquidity factor (LIQ) indicate that the zero-investment strategy of buying low-coverage stocks and shorting high-coverage stocks has a positive exposure to small stocks, value stocks, and liquidity-sensitive stocks. Furthermore, the strategy has a negative exposure to overall market movements indicated by the negative loading on the market factor. This may
be due to the fact that short leg of the strategy consists of high-coverage stocks that tend to co-move more with the market than the low-coverage stocks.

Figure 4 illustrates the growth of $1 on January 2000 invested in each leg of the strategy. We assume that the return is perfectly scalable, and thus the net asset value (NAV) of the portfolio in a given month is the previous month’s NAV compounded using the given month’s return. We see that the long (low-coverage stocks) primarily drives the news coverage effect, and this asymmetry is also found in the results of Fang and Peress (2009) as well.

![Figure 4: Portfolio Growth of Each Leg (common stocks in NYSE)](image)

4.2 Zero Coverage vs. High Coverage

To further examine the premium associated with zero news coverage, I closely follow the methodology of Fang and Peress (2009) by forming long-short portfolios of zero-coverage stocks and high coverage stocks. Each month, I divide the stocks into no-news, low-news, and high-news coverage groups. I then compute the return in the following month on a zero-investment portfo-
lio that longs the stocks with zero news coverage and shorts the stocks with high news coverage. Repeating this computation every month yields a time series of returns for this portfolio. This time-series is then regressed on four factor models: the market model, the Fama-French (1993) model, the Carhart (1997) four-factor model, and a five-factor model that includes the Pastor-Stambaugh (2003) liquidity factor.

Table 2 reports this baseline result in this multivariate setting. Surprisingly, the table shows that the no-news coverage premium does not exist, whether or not I control for market, size, book-to-market, momentum, or liquidity. In fact, this strategy produces insignificant returns and has a negative alpha with respect to the other risk factors.

Table 2: Media-Related Trading Profit: Zero Coverage minus High Coverage

<table>
<thead>
<tr>
<th></th>
<th>Model 1: Market</th>
<th>Model 2: Fama-French</th>
<th>Model 3: Carhart</th>
<th>Model 4: PS Liquidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>mkt - rf</td>
<td>-0.011 (-0.65)</td>
<td>-0.034 (-1.96)</td>
<td>-0.035 (-1.83)</td>
<td>-0.034 (-1.81)</td>
</tr>
<tr>
<td>smb</td>
<td>0.12*** (4.95)</td>
<td>0.12*** (4.86)</td>
<td>0.12*** (5.12)</td>
<td></td>
</tr>
<tr>
<td>hml</td>
<td>0.053* (2.25)</td>
<td>0.053* (2.20)</td>
<td>0.073** (3.03)</td>
<td></td>
</tr>
<tr>
<td>umd</td>
<td>-0.0018 (-0.12)</td>
<td>-0.00095 (-0.07)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>liq</td>
<td></td>
<td></td>
<td></td>
<td>0.025 (1.33)</td>
</tr>
<tr>
<td>Constant</td>
<td>-0.00031 (-0.39)</td>
<td>-0.00078 (-1.05)</td>
<td>-0.00078 (-1.04)</td>
<td>-0.00088 (-1.16)</td>
</tr>
<tr>
<td>Observations</td>
<td>202</td>
<td>202</td>
<td>202</td>
<td>191</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.002</td>
<td>0.115</td>
<td>0.115</td>
<td>0.154</td>
</tr>
<tr>
<td>Adjusted $R^2$</td>
<td>-0.003</td>
<td>0.102</td>
<td>0.097</td>
<td>0.131</td>
</tr>
</tbody>
</table>

$t$ statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Despite the disappearance of significant returns, the strategy still loads positively and significantly on the size factor (SMB) and somewhat less so for the value factor (HML). The $R$-squared values for all models, however, are significantly lower than those in the previous baseline result.
Perhaps the disappearance of the no-coverage premium is best illustrated in Figure 5 which graphs the growth of $1 on January 2000 invested in each leg of the strategy. In the period prior to the 2008 financial crisis, the strategy performs quite well, but during the crisis and post-crisis, the strategy fails to produce significant returns. On the other hand, I observe that the low-coverage minus high-coverage strategy, discussed in the previous section, performs very well post-crisis.

Figure 5: Portfolio Growth of Each Leg (common stocks in NYSE)

These results, combined with the previous baseline results, seem to indicate that there is a systematic difference between the group of stocks without any news items in a given month and the group of stocks that do – sorting stocks based on news coverage for firms with at least some news seems to deliver handsome returns, whereas including the stocks without any news coverage deteriorates the performance. We also note that in the most recent several years, the high-coverage portfolio seems to produce better returns than the no-coverage portfolio, thus contradicting the findings provided by Fang and Peress (2009).
5 Discussion

In this section, I discuss potential explanations for the observations from the last section. I also place my findings in the context of the two aforementioned papers.

5.1 Time-varying premia

The relative performance between each leg of the low-minus-high coverage portfolio shows interesting patterns during and around market crashes. In particular, during the 2008 financial crisis, the low coverage portfolio significantly underperforms the high coverage portfolio. It could be that the relative lack of news coverage during market crashes signals negative information about the firm’s future prospects. This time-varying premium associated with each leg has not been explored in Fang and Peress (2009), most likely because their time period of analysis, 1993 to 2002, contained little events that could be characterized as a market crash.

But post-crisis, the performance between the two legs reverses: the low coverage portfolio significantly outperforms the high-coverage portfolio immediately after the “Dotcom Crash” from early 2000 to late 2002 and the “Housing Bubble and Credit Crisis” from late 2007 to early 2009. One hypothesis could be that the news-coverage-premium is related to time-varying exposure to volatility risk and time-varying beta. This hypothesis can be empirically tested using VIX-imputed variance-swap returns following the methodology in Daniel and Moskowitz (2015) where the authors try to explain the time-varying momentum premium.

5.2 Availability of News

I also note that my second baseline result of the zero-minus-high coverage portfolio is inconsistent with the result in Fang and Peress (2009) despite the identical portfolio construction process. One key difference between my analysis and their time period is that the recent years have seen an explosive growth in the quantity and scope of news coverage, fueled by the advent of electronic news platforms and increased accessibility.

Subsequently, it has become much more difficult for firms to receive no news coverage at all,
and investors may perceive firms with zero news to be too risky for investment. Perhaps, this finding is similar to that of the default risk anomaly: stocks with extreme likelihood of default risk delivers lower future returns, whereas a group of moderately distressed stocks may offer some risk premium.

5.3 High-quality Firm Disclosures

Another hypothesis is that the introduction of more transparent accounting and firm disclosures may have reduced the premium associated with news coverage. The early 2000s saw many occurrences of major corporate and accounting scandals including Enron and WorldCom. The passing of Sarbanes-Oxley Act in response to the incidents seem to have enhanced corporate transparency\(^3\) and improved the perceived reliability of their financial statements\(^4\).

Given this setup, one may argue that even for firms with zero news coverage, investors can rely more on firm disclosures to make investment decisions. In other words, the no-coverage premium could have gone away since even the no-coverage firms have an alternate source of information channel. If this hypothesis is correct, it can explain the disappearance of the no-coverage premium as I move from pre-2002 period, analyzed by Fang and Peress (2009) to the post-2002 period in my results.

6 Conclusion

In this paper, I try to reconcile two papers that have reported contradictory findings on the cross-sectional relation between news coverage and expected stock returns. Especially when the replication of academic findings is increasingly under scrutiny, this is a highly relevant endeavor. I first identify potential sources of their discrepancy through a comparative study and also directly examine the existence of news coverage premium using Ravenpack data.

Consistent with Fang and Peress (2009), I find that stocks with little news coverage earn higher returns than stocks with high news coverage even after controlling for well-known risk

\(^3\)See Arping and Sautner (2010)
\(^4\)See Institute of Internal Auditors (2005)
factors. But I also document that stocks with zero news coverage do not seem to outperform stocks with high news coverage, despite following the portfolio construction rules adopted by Fang and Peress (2009).

These results seem to suggest that the sign and magnitude of the news coverage premium has changed over time. I pose three hypotheses as explanations but leave their empirical verification for future research: first, the two market crashes from 2000 to 2016 may have changed the way investors perceive news; second, the advent of electronic news platforms may have rendered firms with no news as too risky for investment; and third, the introduction of transparent accounting and high-quality disclosures may have reduced the premium associated with news coverage.

This paper adds to the existing strand of literature on the relation between media and the market. While previous literature has focused on newspaper headlines or columns in business magazines, this is the first paper to examine the news coverage effect using Ravenpack. Because Ravenpack provides various metrics at the news item level, this study can be extended to examine the sensitivity of news-coverage premium depending on the time period as well as the novelty, relevance, and sentiment scores of the news items. This extension is potentially very useful for practitioners who seek to construct trading strategies based on coverage of stocks in the news.
7 References


Kim, Y. Han, and Felix Meschke. "CEO interviews on CNBC." (2014).


