Amid an increasing global focus on environmental, social, and governance issues in listed companies – the so-called ESG factors – researchers have turned their attention to the impact on markets and investment performance of the ESG phenomenon. What are the implications for investors when the stocks in their portfolio undergo ESG controversies? And how should investors navigate the market following the release of ESG related news? These are some of the issues under the research spotlight as more investors include environmental, social, and governance issues in their decision-making criteria. This study by Bei Cui and Paul Docherty uncovers new evidence and insights into how company investors behave collectively in response to ESG news events (both positive and negative), with implications for adjusting portfolios subsequent to ESG controversies, and how this may present opportunities for investors – particularly those of contrarian bent – to profit.

KEY FINDINGS

- Investors’ over-emphasis on ESG considerations leads to markets overreacting when companies are the subject of negative ESG news.
- Market overreaction is much more pronounced for bad ESG news than for good news.
- The overreaction to bad ESG news is more pronounced for smaller firms and stocks held by more transient investors before the announcements.
- Due to market overreaction, contrarian investors may be able to profit from the unpopular strategy of buying stocks after the release of negative ESG news.
- Investors wishing to reduce exposure following bad ESG news can sometimes be better off waiting – in some cases up to 90 days after the announcement - to execute the necessary trades, depending on the category of ESG news and firm size.

This document summarises the results of an academic working paper (https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3559915) by researchers Bei Cui and Paul Docherty of the Monash Centre for Financial Studies in Melbourne. For more information, please contact
Bei Cui, PhD
Research Fellow | Monash Centre for Fianncial Studies | Monash Business School
E: bei.cui@monash.edu
INTRODUCTION

We live in an era of responsible and sustainable investment, with environmental, social, and governance (ESG) considerations assuming ever-increasing importance and priority in investment decision making and portfolio construction. Between 2014 and 2018, the total value of ‘sustainable and responsible’ investment assets in the United States grew at a compound rate of 16% per annum to $11.995 trillion or 25.7% of all managed assets. While the societal benefits of ESG investing may seem obvious, there is still no clear answer to the question of whether or not socially responsible funds generate superior risk-adjusted returns compared with conventional funds. Some studies have reported evidence of a positive relationship between socially responsible investing and abnormal returns, while others have reported a negative relationship.

Another big question for researchers is whether the application of ESG values may lead to market inefficiencies – and therefore create a potential for abnormal returns. Previous studies have been confined largely to measuring returns within short periods around the announcement of ESG-related news. This study is the first to examine returns within short periods around the announcement of ESG news. Our examination is motivated by other studies highlighting longer-run returns up to 90 days after ESG announcements. This study is the first to examine – and therefore create a potential for abnormal returns. The application of ESG values may lead to market inefficiencies and thus create a potential for abnormal returns. Another big question for researchers is whether the application of ESG values may lead to market inefficiencies – and therefore create a potential for abnormal returns.

We began with the prediction that investor bias towards ESG considerations might result in overreaction to ESG-related news announcements. Our prediction was grounded in salience theory, which holds that when the attention of decision-makers is disproportionately directed to one or a few factors – in this case, environmental, social, and governance issues – those factors will receive disproportionate weighting in subsequent judgements. We argue that our prediction should apply particularly to ESG controversies, given that bad news tends to be more salient than good.

Thus, when institutional investors observe a negative shock to the ESG attributes of a stock, it is expected that they will overestimate the probability of further shocks, resulting in a stronger tendency to sell, and a larger fall in the stock price than might be justified by fundamental considerations. Our study shows that the price reaction to ESG news events is more pronounced for firms with a higher institutional holding before the news release and that there is a statistically significant decrease in institutional holdings following the release of bad ESG news compared with changes after good news.

If the return patterns we observed around bad ESG news can be attributed to institutional investor overreaction, then we expect both the announcement returns and subsequent mean reversion to be stronger when opportunities for arbitrage are more limited. Thus, we show that the abnormal returns are stronger for smaller stocks, which have higher volatility and are harder to short sell. Further, consistent with the prediction that negative phenomena will attract more attention than positive, we also show that the over-reaction is greater for bad ESG news than good ESG news.

STUDY METHOD AND FINDINGS

The study focused on constituent stocks of the S&P Composite 1500 Index in the United States. We used return data from Center for Research in Security Prices (CRSP) and sourced information about ESG news events from RavenPack News Analytics’s Dow Jones Edition, which includes material from Dow Jones Newswires. By applying filters to RavenPack’s news classification system, we were able to isolate individual events in ESG-related sub-categories. Events were categorised further – as positive or negative – using RavenPack’s news sentiment methodology. Our final sample comprised 82,435 firm-event observations between January 2000 and December 2018.

Stock returns around ESG news events were examined using the event study statistical method. The method involves finding the abnormal return attributable to the event, adjusting for returns that stem Carhart four factors, i.e., market risk, size, value, and momentum. To measure the returns around ESG announcements, we calculated the cumulative abnormal return (CAR) for 21 trading days centered on each news release day.

Across all firms in our sample, the study found a statistically significant cumulative abnormal return at the 0.01 level for the 21-day window of -0.773% around bad news, while the average abnormal return of -0.004% around good news was insignificant. The findings were consistent with our prediction, based on salience theory, that the behaviour of institutional investors would reflect their concern about fund outflows when they held stocks subject to ESG controversies.

To demonstrate the return patterns around ESG news announcements, cumulative average abnormal returns for 21 days were collated across a number of categories (see Figure). First, we separated events into good news and bad news. Second, we categorised stocks according to size, collating separate results for firms in the S&P500 index.

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1 See Global sustainable investment alliance (2018).
2 See Hartzmark and Sussman (2019).
3 See Cao et al. (2019).
4 See Starks et al. (2017).
5 See Fiske (1980).
6 Dow Jones Newswires covers the Wall Street Journal, Barron’s and MarketWatch.
7 The categories are specified as labour issues, war conflict, security, natural disasters, pollution, industrial accidents, civil unrest, corporate responsibility, crime, and health.
8 It is commonly employed when assessing the impact of an event on the value of a firm. For model specification, please refer to the main paper (https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3559915).
S&P MidCap 400 index, and the S&P SmallCap 600 index.

The results show a clear negative abnormal return when firms are subject to bad ESG news, but no clear pattern around positive ESG news. The negative returns around bad ESG news are substantially larger in magnitude for the smallest stocks. There is also evidence of possible leakage of information ahead of bad news events, as cumulative abnormal returns begin occurring several days before news releases.

Figure 1: Cumulative average abnormal returns for 21 days around ESG news announcements.

We also examined abnormal trading volumes from ten days prior to the ESG news announcement to ten days after (see Figure 2). We identified a clear increase in abnormal volumes around bad ESG news and only a small increase around positive news. The increase around bad ESG news was also more pronounced with smaller stocks and – consistent with other evidence of potential leakages of information – there was an increase in abnormal trading volumes several days before the release of bad news.

Figure 2: Announcement period abnormal trading volume.

We also examined which categories of ESG bad news generated the greatest stock price reaction (see Figure 3) over the 21 trading days centered on the ESG news announcement date. The largest negative abnormal returns were related to corporate governance: force majeure (where a firm seeks to be excused from performing its part of a contract), discrimination defendant in which the company is the defendant in a legal action for unfair business practices.

To further test the proposition that investors with a strong focus on firms’ ESG characteristics are likely to overreact to ESG news, we analysed institutional investor holdings around ESG news events. The results confirm a pattern of decreased institutional holdings around the time of bad ESG news and the change in institutional ownership around ESG events was also noticeably larger for small and mid-cap stocks. The results provide further evidence of a subset of institutional investors selling stock holdings following ESG controversies, and in doing so, contributing to significant negative returns around the time of the event.

If investors overestimate ESG risk for a stock after a bad news event, it follows that the reaction of the market will be out of step with the change in fundamentals associated with the news – and abnormal returns will result. To test this proposition, we examined longer-run post-announcement returns subsequent to the initial negative returns around ESG controversies. Evidence of positive abnormal returns in the 90-day period after bad ESG news announcements is shown below in Figure 4. Consistent with our predictions, returns were larger in magnitude for smaller capitalisation stocks, and there was no long-term trend in abnormal returns following positive news announcements.

In addition to the singular relationship between ESG announcements and returns, we conducted a multivariate analysis to see whether particular characteristics of firms affected returns around ESG announcements. We also examined whether overreactions were accentuated in small firms and in those with a large proportion of the

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9 The abnormal trading volume is calculated as ratio of trading volume at day \( t \) of the trading volume averaged between day \( t = -255 \) and \( t = -46 \).
outstanding equity held by transient institutional investors.

Our multivariate analysis confirmed that the abnormal returns around bad ESG news were greater than around good ESG news and that abnormal returns around bad ESG news were larger for smaller firms. Similarly, the abnormal returns were larger for firms with a greater proportion of transient investors, demonstrating the contributing effects of transient institutional investors who overweight the probability of ESG risks being realised again in the future.

CONCLUSION

Salience theory suggests that investors overestimate the probabilities associated with salient events. So when an ESG controversy occurs, investors give too much weight to the possibility that the event will be repeated and therefore overreact to the news. Consistent with this proposition, our study found a negative effect on returns when negative ESG news was released, but that these returns mean reverted over the subsequent 90 days. The impacts – both for announcement returns and subsequent reversals – were strongest for smaller capitalisation stocks and those stocks held by more transient investors before the news release. Our research has several important implications. First, we demonstrate the potentially adverse implications for market efficiency of biases induced by the growing focus on ESG information. Second, our study demonstrates why institutional investors that adopt ESG in their information set need to carefully condition their trading activities around ESG news releases to avoid overreaction and consequent losses. Finally, given the observed overreactions to ESG news, there may be potential for contrarians to buy stocks after the release of negative ESG news and profit from the subsequent mean reversion.

REFERENCES


