

**Marketing stocks to retail investors:
The capital market consequences of external investor relations engagements**

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Abstract

We examine the market effects of external investor relations (IR) engagements. Broad awareness programs, podcasts, and virtual conferences have little impact, whereas television campaigns generate roughly 30% cumulative abnormal returns and sharp increases in trading volume. Prices react immediately to TV exposure but fully reverse within two months. Retail investor attention, measured by internet search volume, rises around TV campaigns, while institutional attention and ownership do not. Overall, external IR efforts appear effective at reaching retail investors and temporarily boosting valuations, suggesting that retail participants might overpay for the securities.

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1. Introduction

Investor relations (IR) is defined as the “strategic management responsibility” to “enable the most effective two-way communication between a company, the financial community, and other constituencies.” (The National Investor Relations Institute, 2016). There are two primary objectives of the typical firm’s IR operations. First, many companies believe they reduce information asymmetries between the firm and outsiders by, for example, clarifying disclosures and facilitating access to the firm’s management (The National Investor Relations Institute, 2016). Second, companies often target new potential investors by informing them of the firm’s operations and financial performance, with the goal of expanding the firm’s investor base (The National Investor Relations Institute, 2024). When it comes to new potential investors, most firms target them through corporate access events such as non-deal roadshows or brokerage-hosted conferences (Bradley et al., 2024; Green et al., 2014). Prior research shows that IR engagements aimed at these investors increase institutional investor ownership, analyst coverage, media coverage, and market valuation (Bushee and Miller, 2012). Sophisticated investors, such as institutions, are unlikely to overpay for securities. Retail investors, on the other hand, are likely less sophisticated so that, in the presence of limits to arbitrage, IR engagements aimed at them might lead to predictable spike-reversal patterns in stock prices. The focus of this paper is to analyze the capital market consequences of such IR engagements apparently aimed at retail investors.

We examine a novel sample of external investor relations engagements exploiting detailed disclosures of external relation campaigns.¹ To illustrate, consider the example of FibroBiologics (FBLG). FBLG paid a \$10,000 monthly cash fee for three months of investor awareness services that began in June 2025. In addition, FBLG paid for four separate national TV ad campaigns: \$50,000 for a campaign from August 26 to September 9, 2024; \$45,000 for a 10-day campaign between October 30 and November 12, 2024; \$37,500 for a 10-day campaign from January 30 to February 12, 2025; and

¹ Most publicly traded firms maintain a team of internal IR professionals, which varies considerably based on firm size and industry. For example, in 2022, according to IR magazine, the average small cap firm (<\$1billion) has 1.2 IR employees compared to 3.8 IR employees in the average mega-cap firm (>\$30 billion). (Source: <https://www.ir-impact.com/wp-content/uploads/2024/11/GPR22-full-final.pdf>.) In contrast to these internal IR operations, our sample consists of external IR engagements.

\$50,000 for a 10-day campaign from April 14 to April 25, 2025. These rich granular disclosures allow us to identify the specific services rendered, effective dates of these services, and payments provided by client firms.²

We begin by analyzing capital market reactions. Specifically, we examine the impact of IR engagements on returns and volume using a panel regression framework with high-dimensional fixed effects. We identify several types of investor relations activities. As the example above illustrates, one of the most general types of IR engagement, “investor awareness services,” has an average length of 10 months. We not only identify the firms that engage in these broad services, but within the umbrella of these services, we can identify firms featured on podcasts and virtual conferences. As the example above further suggests, TV campaigns are another type of IR engagement, but these are paid separately from the broader investor awareness services. When we include all these IR services in our regression, we find that TV campaigns are the only IR function significantly related to future market returns and volume. Specifically, each day a TV campaign is active, there is a 1.85% increase in market-adjusted returns. Because the average campaign lasts 16 trading days, this cumulates to nearly 30% over the life of a campaign. We find similar results for trading activity – there is a significant surge in trading volume during investor relation campaigns that is entirely driven by TV exposure.

Having established that TV campaigns drive much of the market’s reaction to external IR engagements, we dig deeper into these campaigns. They consist of two main formats. First, *Small Stocks, Big Money* is a 30-minute television program broadcast on Bloomberg TV, at 7:00 p.m. ET on Saturdays, featuring interviews with executives from small, publicly-traded firms. The show, produced by an external investor-relations firm, is designed to highlight the business models and growth prospects of its client companies. Second, there are investor-targeted 30-second commercials produced by the IR firm which air on CNBC. We identify all 137 Bloomberg TV ads and capture 456 unique CNBC ads, for a total of 593 TV ads. Using time stamps for these ads, we find that the market reacts immediately after an ad. In the 15-minute post-ad window, the average returns is 0.87% (t -stat = 5.26) while volume spikes by a factor of 6 (t -stat = 6.37). Both formats of TV exposure are associated with immediate

² Investor awareness services are rather broad and may include services such as help preparing research profiles, management of earnings conference calls, press releases, various marketing materials and other types of investor communication. At a more granular level, we identify the day of podcast releases and the day of virtual conferences hosted by external investor relations. There are two distinct types of TV campaigns which we later discuss in detail.

stock price and volume jumps. Economically, the impact of TV exposure is large and immediately reflected in prices and liquidity.

Given the significant market reactions to these IR engagements, a natural question is what happens when they end. We find that stock prices nearly fully reverse within 60 days of a TV campaign's conclusion, while trading volume remains elevated. For instance, over the (1, 60)-day post-campaign window, CARs average -19% (t -stat = -3.45).

An important question is who responds to these IR engagements. While most companies target institutional investors with their IR outreach, there are reasons to believe the campaigns we study target retail investors. First, *Small Stocks, Big Money* airs on the weekend, which is unlikely to capture the attention of institutional investors, and the commercials on CNBC during weekdays seem to cater to retail investors.³ To examine who likely responds to these engagements, we use three approaches.

First, we examine investor attention using the search volume index (SVI) from Google Trends and abnormal institutional investor attention (AIA) from the Bloomberg Terminal. The former is more likely to gauge retail investor interest (Da, Engelberg, and Gao, 2011) whereas attention on Bloomberg terminals is more likely to reflect institutional investor interest (Ben-Rephael, Da, and Israelsen, 2017). We find that Google SVI is significantly higher during TV campaigns, but not during other forms of IR services, which suggests that TV ads are especially effective at capturing the attention of retail market participants. In contrast, search activity on Bloomberg terminals is elevated around virtual conferences, which is consistent with the idea that conferences cater to institutional investors. Nonetheless, while virtual conferences might induce attention from institutional investors, they are not associated with discernable capital market consequences, suggesting they do not act (i.e., buy) based on this attention.

As a second approach, we examine whether IR campaigns attract analyst coverage. Anecdotal evidence and academic work suggest this is one of the main reasons firms engage in IR activities. We find no significant increases in the number of analysts' earnings forecasts or recommendations following any type of external IR activity. Coupled with the lack of attention results from Bloomberg searches, it appears these IR campaigns are ineffective at attracting institutional interest.

Our third and final approach is to examine ownership changes around IR campaigns, which is arguably the most important measure of investor interest. From Bloomberg, we capture institutional, insider, and retail ownership at the quarterly level. We do not find a significant change in institutional

³ Of course, finance professionals often have CNBC playing in the office background and could be influenced by these commercials.

investor ownership during the quarter of an active investor relations campaign compared to the previous quarter. However, we find some evidence of a decrease in insider ownership (approximately 1.5%) during the quarter of a TV campaign that is more than offset by an increase in retail ownership (approximately 3.4%). Thus, our evidence suggests that insiders are net sellers during IR campaign and that retail investors provide some of the liquidity. Given that stocks underperform shortly after the campaign ends, the results suggest that some retail investors likely experience significant losses.

Our paper makes several contributions to the literature. With respect to the IR literature, prior work suggests that firms with dedicated internal investor relations experience positive capital market benefits such as an increase in analyst coverage, institutional ownership, liquidity and market valuation (Brennan and Tamarowski, 2000; Kirk and Vincent, 2014), lower loan spreads (Chapman et al., 2025) and lower stock price volatility and analyst forecast dispersion (Chapman et al., 2019). Despite these benefits, having a dedicated internal investor relations function is costly, and smaller firms with limited resources often find it optimal to outsource this function. Volant (2025) estimates that 15% of public companies use an external investor relations firm. Bushee and Miller (2012) examine a small sample of firms that engage with external investor relations and find similar benefits to those with internal IR. That is, these firms experience an increase in analyst coverage and attract institutional investment. Our study differs from prior research on IR in that we focus on external IR engagements that seem to target retail investors, whereas prior researchers focus on both internal and external IR activities that capture the attention of institutional investors. More importantly, unlike previous work, our focus is on the disclosures made by the IR firm, which allows us to examine the consequences and value of specific activities during IR campaigns. Consistent with the idea that retail investors are less sophisticated and prone to overpay, we find that these IR campaigns are followed by significant spike-reversal patterns in stock prices.

In addition, we contribute to the literature on investor attention and limits to arbitrage. Prior researchers have shown that investor attention can cause short-term price pressure, which is sometimes accompanied by subsequent reversals (De Long et al., 1990; Barber and Odean, 2008; Da, Engelberg, and Gao, 2011; Engelberg, Sasseville, and Williams, 2012; Lou, 2014). We add to this literature by analyzing external IR campaigns, which is a previously (to the best of our knowledge) unexplored setting where firms pay intermediaries to increase retail attention in the firm's stock. Our findings that such campaigns are followed by predictable stock price spikes and subsequent reversals provide further evidence of limits to arbitrage. In addition, the findings suggest that retail investors likely overpay for

such securities during the spike phase, despite the mandatory disclosures that accompany these IR campaigns.

Overall, our findings suggest that external investor relations campaigns, particularly TV exposure, serve as an effective, but short-lived, mechanism for boosting market visibility and trading activity. Despite their immediate impact, these campaigns appear to have limited success in fostering lasting engagement from institutional investors or analysts. Instead, they primarily function as a source of liquidity, often enabling insiders to reduce their holdings during periods of heightened retail participation. This pattern raises significant questions about the long-term sustainability of such strategies and the potential for retail investors to absorb disproportionate losses once promotional efforts conclude. Perhaps, enhanced disclosure requirements may improve transparency around the timing and nature of external IR activities and allow retail investors to better process the role and implications of such activities.

2. Regulatory background, data sources and summary statistics

2.1 Rule 17(b)

Rule 17b of the Securities Act of 1933 is a key anti-fraud provision aimed at ensuring transparency in the promotion of securities. It prohibits individuals or entities from publishing or circulating any promotional materials such as articles, advertisements, or social media posts that appear to offer an unbiased opinion about a security if the person promoting it has received compensation from the issuer or a related party without fully disclosing that fact. The rule applies broadly and includes all forms of compensation, whether in cash, stock, or other benefits, and it is designed to prevent undisclosed paid promotions from misleading investors.

The purpose of Rule 17(b) is to protect the integrity of the securities markets by making sure investors can clearly distinguish between genuine, independent investment analysis and paid endorsements. When people or companies are paid to promote a stock without proper disclosure, it creates a deceptive appearance of organic market interest, which can artificially inflate prices or lead to uninformed investment decisions.

To comply with Rule 17(b), the promoter must make a full and clear disclosure of several specific details. These include the fact that compensation was received or expected, the amount and type of compensation (i.e., cash or stock), the identity of the paying party (such as the issuer or a third party

acting on its behalf), and the nature of the promotional activity (such as TV campaigns). This disclosure must be conspicuous, not buried in fine print or hidden in unrelated content, and must be made at the time of the promotion. Importantly, even if the promotional statements are factually true, failure to disclose compensation can still violate Rule 17(b), because the rule focuses on transparency, not just accuracy. Recent high profile enforcement actions highlight how the SEC uses Rule 17(b) in practice.⁴

2.2 *Investor relations data*

We collect investor relations data from *RedChip*, an external investor relations consultant providing various investor relations services.⁵ According to their website:

RedChip is the world leader in investor relations, financial media, and research for microcap and small-cap stocks. Founded in 1992, and headquartered in Orlando, Florida, with affiliates in New York and Pittsburgh, RedChip has helped hundreds of companies achieve their capital markets goals. RedChip has been ranked by Inc. magazine as one of the fastest growing privately held investor relations firms in the U.S. RedChip represents 70+ emerging growth companies in a variety of industries including Business Services, Esports Gaming, Consumer Goods, High Tech, Industrials, Mining and Minerals, Electric Vehicles, Drones, Crypto, and EdTech.

From their legal disclosures, we collect detailed data on their IR engagements over approximately one year. The first campaign begins on November 15, 2023, and the last begins on October 8, 2024. Over the year, we periodically check for updates and scrape newly-added campaigns.⁶ From these disclosures, we capture the client (i.e., firm name), the effective dates of the campaign, the services that

⁴ In 2022, Kim Kardashian was charged with promoting the EthereumMax (EMAX) token on Instagram without disclosing that she had been paid \$250,000 to do so. Similarly, former NBA star Paul Pierce was fined for touting EMAX while receiving more than \$240,000 in crypto tokens without proper disclosure. Both settled with the SEC, paying substantial fines in excess of \$1 million and agreeing to refrain from promoting crypto asset securities for a period of time. These cases demonstrate how seriously the SEC takes promotional transparency, especially in the context of social media and celebrity influence over retail investors.

⁵ https://www.redchip.com/corporate/about_us

⁶ Old campaigns remain on the website for at least six months. To ensure that we have captured all of the campaigns, we update the sample at least once every two months.

RedChip provides, and the fee the client pays. For instance, Can-Fite Biopharma (CANF) hired RedChip for investor relations services. An excerpt from the disclosure is below:

Can-Fite Biopharma (CANF) is a client of RedChip Companies, Inc. CANF agreed to pay RedChip Companies, Inc. a \$10,000 monthly cash fee, beginning in April 2024, for four months of investor awareness services and one-time cash fees of \$50,000, \$22,500, \$45,000, \$40,000, and \$40,000 for national TV ad campaigns aired weekdays from June 3 to June 14, 2024, June 19 to June 25, 2024, October 2 to October 15, 2024, December 4 to December 17, 2024, and February 6 to February 19, 2025, respectively.

In the example above, we record the timeframe of each service. Specifically, we capture that CANF received “investor awareness services” for the four-month period between April and July 2024, and we record the dates of their TV campaigns (June 3-14, June 19-25, October 2-15, December 4-17, all in 2024, and February 6-19 in 2025) as well as the respective fees.

RedChip produces two types of TV campaigns. First, RedChip produces 30-second TV commercials that are aired on CNBC directly targeting investors. A typical commercial describes what the company does and highlights the value proposition. The commercials are a clear attempt to promote firm visibility and target investors. In every commercial, the ticker symbol is on display throughout the entirety of the commercial and as part of the audio, repeated multiple times. For the period from October 24, 2024, to March 31, 2025, we record CNBC 24 hours a day during weekdays and identify *all* RedChip commercials aired. Second, they host a weekly TV show called *Small Stocks, Big Money*. This 30-minute TV show is run weekly on *Bloomberg TV* and typically features two of RedChip’s clients with interviews from top-level executives of the firms. We identify all firm-dates of companies featured on this program. Finally, RedChip also produces podcasts and hosts virtual conferences. We collect these as well from RedChip’s website.

Stock returns and firm characteristics are collected from the Bloomberg Terminal. In the first part of our analysis, we examine daily returns. In subsequent analyses, we examine minute-by-minute returns. Data on firm-level attention are collected from both the Bloomberg Terminal and Google Trends. All variables and the respective data sources are presented in Appendix A, Table A.1.

2.3 *Summary statistics*

Table 1 provides summary statistics of the sample of 57 client firms that use RedChip’s services between May 1, 2023 and December 31, 2024. The list of stocks is presented in Appendix A, Table A.2. Table 1, Panel A, provides descriptive statistics on the frequency of investor relation services provided by RedChip. Over our sample, there are 34 investor awareness programs for 34 companies. These are typically multi-month programs consisting of various investor relation functions that, according to RedChip, include “the preparation of a research profile(s), multimedia marketing, and other awareness services.” In our sample, almost 60% of companies hire RedChip for these services. Podcasts and virtual conferences would be included in investor awareness services. There are 51 and 70 podcasts and virtual conferences, respectively. Thus, the average firm participates in more than one of these events. TV campaigns are distinct from the broader investor awareness services, and there is a mix of firms that hire RedChip for only investor awareness, only TV campaigns, or both. There are 111 TV campaigns for 57 firms, suggesting that most RedChip clients participate in a TV campaign, and the average firm has approximately 2 campaigns.

Insert Table 1

Panel B provides details on the fees paid and length of investor relations services. There are three main types of payment disclosures. The first is a monthly fee for “investor awareness services.” In our sample, 34 firms pay an average monthly fee of \$8,592. Additionally, 56% of firms have some form of equity-based fee component for these services. The average TV campaign costs \$41,302 and lasts 16 calendar days. This fee includes the production and airing of TV commercials. Less than 2% of firms pay for TV campaigns with stock.⁷

Panel C summarizes the variables we use for our empirical analysis. Appendix A, Table A.1, provides detailed definitions of all variables. The initial sample that we analyze consists of firm-day observations that begin approximately six months before the first IR activity (May 1, 2023) and end on December 31, 2024 (the last available stock price data). When analyzing this sample, the main dependent variables are excess returns and daily share turnover calculated as shares traded divided by shares outstanding. The average daily excess return is -9 basis points, and the average daily volume scaled by outstanding shares is 7%. The average market capitalization is about \$50 million, but this varies considerably as the standard deviation, at \$64 million, is more than double the mean. This is

⁷ In unreported analysis, we examine if the type of payment (cash or equity-based) and the amount of the payment matters in the context of the tests that we implement. We find no evidence that it does.

consistent with the small capitalization focus of RedChip's clients. Return on assets (ROA) is -104%. Again, the low average profitability suggests these are small companies that are largely unprofitable, as 75% of the ROAs are below -29%.

The next four variables report firm-day investor relations activities. Approximately 22% of firm-day observations have an investor awareness program while 6% have a TV campaign. Podcasts and virtual conferences are less frequent: 0.23% and 0.3%, respectively. However, it is worth noting that these activities occur on a single day while investor awareness and TV campaigns span multiple firm-days.

The last set of firm-day variables are corporate events that have been shown to be related to stock returns. IPO/uplisting indicates if a firm completed its IPO or is upgraded to a higher status exchange.⁸ This occurs for 0.14% of firm-day observations. SEOs occur much more frequently at 1.27%. This is quite remarkable because SEOs are rather rare. For instance, Intintoli and Kahle (2010) examine all firms that engage in SEOs between 1980 and 2004. Their sample consists of fewer than 8,000 observations, which is approximately 300 SEO deals per year. Given there are over 5k listed firms, this suggests that the average firm-day would be approximately 0.024% ($300/(5k \cdot 250 \text{ trading days})$). Thus, our sample engages in SEOs at a significantly higher rate than the typical firm. Delisting is also high in this sample, at 0.24%. Doidge, Karolyi and Stulz (2017) suggest about 400 firms per year delist for various reasons such as mergers and acquisitions, bankruptcy, or forced delisting for not meeting exchange requirements. Using the same back-of-the-envelope calculations, this would imply a firm-day delisting average of 0.032%. Spinoffs, acquisition, reverse splits, and equity buyback average 0.08%, 0.27%, 0.27% and 0.29%, respectively. Since the average firm has two shareholder meetings in our sample, the average firm-day value is 1%. Similarly, since firms report quarterly earnings, the average firm-day value is 3.07% (days $t-3$ to t).

We consider two measures of investor attention – one to gauge retail attention and the other for institutional attention. Both are aggregated to the weekly level. To capture what is likely the attention of retail investors, we follow Da, Engelberg, Gao (2011) and use Google's search volume index (SVI), which measures how often a term is searched on Google over time. SVI is normalized so that it takes the value 100 on the day with peak search volume over the given time period; all other days are relative to this peak. Thus, a value of 50 indicates that search was half as popular relative to its peak. The

⁸ In our sample, 3 companies hire RedChip for investor relations publicity before going public. Uplisting almost always occurs when a company goes from an OTC to a Nasdaq listing.

average weekly value is 25. We collect abnormal institutional attention (AIA) from Bloomberg terminals following Ben-Rephael, Da, and Israelsen (2017). The AIA index is computed daily using a rolling 30-day window of each company’s own readership levels on the Bloomberg Terminal. Values of 4, 3, 2, and 1 indicate readership activity in the top 96, 94, 90, and 80 percentiles of readership for that company. A value of 0 indicates no rank due to low readership activity (see also Appendix A, Table A.1). The average of this variable is 0.60, indicating a relatively low institutional investor interest.

We also conduct tests at the firm-quarter level. We summarize the variables used in this analysis at the bottom of Panel C. We collect the average number of analysts providing quarterly firm-level earnings estimates and the number of analysts issuing a recommendation. These values average 0.5 and 1.3, respectively. Bissessur and Veenman (2016) show the median firm-quarter has 7 analysts issuing earnings forecasts, which provides further evidence that the average firm in our sample is much smaller than the typical publicly-listed firm. Similarly, institutional ownership is about 16%, which is much lower than that in larger firms. For instance, Ford Motors’ institutional ownership exceeds 50%. Insider ownership is roughly the same (16%) and more in-line with larger firms. For example, Elon Musk owns more than 10% of Tesla. Retail ownership is high at almost 70%. Brav, Cain, and Zytnick (2022) show in their sample that retail ownership is approximately 25%. However, it rises to about 40% in the smallest size quintiles of firms. The high retail ownership in our sample is consistent with this size correlation.

3. Are there capital market consequences to external investor relations campaigns?

3.1 Investor relations services and stock returns

We begin by examining the relation between IR services and capital market activity. We first consider the panel of firm-days, and we regress daily market-adjusted stock returns (defined as the difference between the stock’s return and the return of the S&P500) on various investor relation services and firm characteristics. *Investor awareness* is an indicator variable equal to one if the firm is paying for investor awareness services on day t , zero otherwise. *TV campaign* is an indicator variable equal to one if the firm has an active TV campaign on day t , zero otherwise. *Podcast* is an indicator variable equal to one if the firm was involved in a podcast the previous day, zero otherwise. *Virtual conference* is an indicator variable equal to one if the firm participated in a virtual conference on day t , zero otherwise.

Table 2 presents the regression results. Panel A reports results for excess returns on day t . Model 1 only includes the indicator *Investor awareness* in addition to the date fixed effects. We find on days when investor awareness campaigns are active, excess returns are on average 0.14%. When considering the length of these campaigns (almost 11 months on average), this coefficient is economically large, but statistically insignificant. We include firm and event specific variables in model 2. The coefficient on *Investor awareness* is largely unchanged at 0.10% and the control variables generally behave as expected. For instance, SEO announcements are associated with average market-adjusted returns of around -3%, which are somewhat lower than the -1% returns reported in the meta-study by Veld, Verwijmeren and Zabolotnyuk (2020). Delisting announcements are associated with market-adjusted returns of around -4%, which is higher than the returns of -8.5% reported in Sanger and Peterson (1990).

Insert Table 2

Investor awareness is broad and includes services such as assisting in the preparation of research profiles, various marketing materials and other types of investor communications. Some of these services we can identify, and importantly, we can observe their precise timing.⁹ Specifically, we identify podcasts, virtual conferences, and TV campaigns. In model 3, we find that *TV campaign* is positive and large. The coefficient of 1.78 suggests that excess returns are 1.78% *each* day a TV campaign is active. Given the average campaign lasts 16 days, this implies an excess return of 28% over this period. In model 4, we include several controls. The coefficient is largely unchanged at 1.85. In model 5, we introduce *Podcast* and *Virtual conference*. Neither coefficient is statistically significant, suggesting that the market does not significantly react to these events. Model 6 includes all events. *TV campaign* is the only IR activity that has economically and statistically meaningful consequences for stock returns.

3.2 *Investor relations services and share turnover*

Panel B of Table 2 focuses on trading activity. In these specifications, the analysis mirrors panel A with the only exception being that the dependent variable is the natural logarithm of daily share turnover on day t . Stock and day fixed effects are also included. Model 1 only includes *Investor awareness*, and model 2 incorporates control variables. Similar to Panel A, investor awareness programs are not associated with an increase in trading volume. Regarding the controls, as expected, volume is higher

⁹ TV campaigns have incremental costs beyond investor awareness services. That is, some firms choose investor awareness with no TV campaigns and those that also choose TV campaigns pay an incremental cost for this service. More than a third of firms choose TV campaigns without monthly investor awareness services.

for companies engaging in equity offerings or various corporate events such as around an announcement of an acquisition or earnings announcements.

In models 3 and 4, we introduce the *TV campaign* variable. Also similar to panel A, *TV campaign* is positively associated with turnover. The coefficient of 0.90 in model 3 suggests a 90% increase in turnover, which is similar once controls are introduced in model 4. Model 5 examines podcasts and virtual conferences, which like Panel A, do not have a market impact. In model 6, where all IR activities are included, only *TV campaign* is significantly related to share turnover.

3.3 A closer look at TV campaigns

Given that TV campaigns are the important events that drive returns and volume in Table 2, in this section we take a closer look at these events.¹⁰ Figure 1 plots stock returns and turnover in the 10-day period before and after TV campaigns. In the period before a TV campaign commences, the figure suggests that CARs are essentially zero. However, there appears to be an uptick in returns on day -1. The average CAR increases almost monotonically through day 8, when it approaches 20%. Returns then appear to decline a few percentage points over the next two days.

We also report trading volume in Figure 1. Similar to returns, volume appears to modestly increase on day -1 and remains elevated through day 8. On day 9, there is surge in average volume, which is driven by one outlier. Overall, after TV campaigns commence, relative trading volume increases by a magnitude of around 5x to 10x when compared to pre-campaign volume.

Insert Figure 1

In Table 3, we examine the statistical significance of the cumulative abnormal returns and abnormal volume in Panels A and B, respectively. Not surprisingly, CARs over days -10 to -1 are insignificant as they are economically small (1.74%, t -stat = 0.60). In contrast, cumulative abnormal returns during the (1, 5)-day window are large and highly statistically significant (13.5%, t -stat = 5.92), but are smaller and insignificant over the (6, 10)-day window (2.17%, t -stat = 0.98). Over the entire 10-day window after the start of a TV campaign (i.e., days 1 to 10) returns average almost 16% and are statistically significant (t -stat = 4.72).¹¹

¹⁰ This sample contains 55 stocks. RedChip does not provide the exact TV campaign dates for AREC while Bloomberg does not have prices for OSTX during their TV campaign.

¹¹ One complication with an event day analysis in this setting is that the average campaign is 16 days, but varies considerably. Almost all campaigns last 10 days and that is why we chose to examine returns during the 10 days once the campaign started. This is not an issue in the regression analysis in Table 2.

Insert Table 3

Panel B reports relative trading volume. For this test, we examine the average volume over different periods and compare it to the trading volume on trading days (-10,-1). Trading days (1, 5) during the first week of a TV campaign experience a daily trading volume that is 271% greater than the trading volume in the prior two weeks. This effect is highly statistically significant (t -stat = 4.78). Relative daily trading volume is even higher during the second week of the campaign at 14.7, but given the high volatility, it is only significant at the 10% level (t -stat = 1.84). However, over the entire 10-day window following the beginning of the campaign, relative volume is significantly higher than it is before the TV campaign (at the 5% level with a t -stat = 2.19).

3.4 *Intraday returns around TV commercials*

The results thus far suggest that returns and volume are driven by TV campaigns that significantly increase over the campaign period. Busse and Green (2002) examine analysts' recommendations broadcasted on CNBC in real time. They find the market reacts within seconds of these recommendations. In this section, we examine intraday returns to see how quickly TV exposure gets incorporated into these capital market responses.

There are two types of RedChip TV campaigns. First, RedChip produces investor-targeted infomercial/commercials that are later aired on cable news networks. Appendix B, image (A), shows a snapshot of a typical investor-targeted commercial aired on CNBC. In this commercial, Bullfrog AI is featured. The infomercial lasts 30 seconds during which time the ticker symbol and firm name are prominently displayed and the audio repeatedly mentions the firm and ticker symbol while giving the audience some basic highlights of the company. All these types of infomercials last 30 seconds and the general theme is the same – to appeal to investors and attract their attention.

The other form of TV exposure is through RedChip's weekly *Small Stocks, Big Money* program which airs on Bloomberg TV. In this program, one to two firms are typically covered featuring interviews with firm executives. Appendix B, image (B) provides a snapshot of one of these programs. In this example, Lantern Pharmaceuticals (LTRN) is the featured company during the 30-minute program, typically with an executive of the company following a scripted question and answer session. While Bloomberg TV programming follows a completely different format from the commercials aired on CNBC, the main premise of the segment is to promote the company to investors. Over our sample,

we collect all 137 firms profiled on Bloomberg’s *Small Stocks, Big Money*. The remaining 456 observations are CNBC informercials, which gives us a sample of 593 events.

The data allows us to conduct granular analysis by examining intraday returns around the airing of these events. We identify firms that appear on *Small Stocks, Big Money* on Bloomberg TV. Since this show airs on Saturday evening, we focus on the opening Monday return following the program, which is the first opportunity for investors to purchase shares in the company post-airtime. To identify RedChip commercials, we record CNBC for 24 hours/7 days a week for the period from October 24, 2024, to March 31, 2025. After analyzing a week of content, we found that RedChip commercials exclusively air during the 6:00 a.m. to 8:00 p.m. time slots, so we focus on shows during this time frame. Each day, we flag the company, its ticker and the time (to the minute) that it aired. Commercials airing after hours are mapped to the next trading day.

Insert Figure 2

Figure 2(A) plots minute-by-minute returns around the airing of all TV campaigns. In the hour preceding the commercials, there appears to be little stock price movement. However, when the commercial airs, the price and volume reactions are almost immediate. Over the next 60 minutes, the stock price reaction drifts slightly higher and volume remains elevated.

Figures 2(B) and 2(C) provide a similar analysis, but isolate the TV type: Bloomberg and CNBC, respectively. Both exhibit an immediate stock price and volume jump when aired, however, the economic magnitude is higher for Bloomberg TV exposure. For example, Bloomberg exposure is associated with an immediate excess return of approximately 1.5% and a volume spike of 60 times pre-commercial volume. This compares to commercials aired on CNBC, which are associated with 0.5% excess returns and an increase of 10 times relative trading volume. Note that for Bloomberg TV commercials, which typically air on Saturdays at 7:00 p.m., returns increase before the airing of the segment. Because the schedule is predetermined, this may be due to traders anticipating the bump that the firm will likely get post-airtime and thus placing buy orders just before the market closes on the previous day (i.e., just before the market closes on Friday). Note that while CNBC commercials lead to a lower excess return and volume surge compared to Bloomberg TV, these ads are typically aired many times during the campaign whereas the Bloomberg segment is aired once.¹²

Insert Table 4

¹² We examine whether the first CNBC ad in our sample has a larger economic impact than subsequent ones. We do not find evidence of significant differences between the first TV ad and subsequent TV ads.

In Table 4, we formalize this analysis by obtaining point estimates and testing for statistical significance. As shown in Panel A, the average 15-minute return around TV exposure is 0.87% and is highly statistically significant (t -stat = 5.26). Subsequent 15-minute returns are positive, but not statistically significant. Over the first 1-hour interval post-exposure, returns average 1.12% and are highly significant (t -stat = .64). Similar to returns, the initial volume shock in the immediate 15 minutes following TV exposure is largest, at about 6 times pre-commercial volume, and highly statistically significant (t -stat = 6.37). It remains elevated and highly significant throughout all 15-minute intervals.

Panel B presents regression analysis of the presented intraday returns. The dependent variables in models 1 and 2 are the 15- and 60-minute returns post-TV exposure, respectively. *CNBC (market hours)* and *CNBC (after hours)* are indicator variables capturing whether the ad aired on CNBC during or after market hours, respectively.¹³ *Bloomberg* is an indicator variable equal to 1 if the firm is profiled on *Small Stocks, Big Money*, 0 otherwise. In the regression analysis, the sample of control firms are other firms in our main sample that do not experience a TV commercial within the given date-time period (Appendix A, Table A.2 lists all stocks).

In model, 1, the coefficients of *CNBC (market hours)* and *CNBC (after hours)* are both positive, at 0.85 and 1.03, and statistically significant (t -stats of 4.19 and 4.46, respectively). In model 2, the coefficient on *CNBC (market hours)* increases to 1.15, an increase of 35%, which is consistent with slow information diffusion as it may take time for investors to process the information and place trades. On the other hand, *CNBC (after hours)* increases only modestly to 1.10. Investors may place orders to be executed at open, so slow upward demand is less likely for ads placed outside market hours if aggregate buying demand is executed soon after the market opens. The coefficient on *Bloomberg* is positive in both models 1 and 2, at 0.74% and 1.14%, and significant. Thus, both forms of TV exposure, regardless of timing, lead to immediate and significant abnormal returns. Likewise, models 3 and 4, show that the volume effect is also immediate and statistically significant.

3.5 What happens when the campaign ends?

The previous section shows that TV campaigns are associated with significant positive returns and trading volume increases. In this section we investigate if these effects are permanent or transitory

¹³ TV ads airing outside of market hours are mapped to the next opening market window. For example, ads airing at 5PM on Thursday or 7:45AM on Friday are mapped to the 9:30-9:45AM window on Friday.

by examining capital market behavior after TV campaigns end. Similar to Table 3, we report CARs and trading volume relative to trading days -10 to -1 before the start of a TV campaign.

Insert Table 5

Table 5, Panel A, reports CARs. The first window considers the three weeks after the campaign ends. The average (median) CAR is -4.75% (-8.55%). While economically large, the mean return is not statistically significant (t -stat = -1.35). Similarly, CARs over the next 15 trading days (i.e., trading days 16 to 30) are economically large at -5.4%, but again not statistically significant (t -stat = -1.50). However, the following 15 trading days (days 31 to 45) are indeed economically large, at -7.2%, and statistically significant (t -stat = -2.89). Returns are economically small over the subsequent 15 days (days 46 to 60). Abnormal returns cumulated over all 60 trading days following the campaign more than offset the increase in returns during the TV campaign. These results suggest that the positive returns during the TV campaign period are transitory. The average CAR is approximately -19% over this 60-day window, and highly statistically significant (t -stat = -3.45).

Panel B reports relative trading volume. In the weeks following the campaign, volume is elevated across all windows by at least a factor of 6 relative to its level in the two weeks before the TV campaign begins. In all cases, with the exception of the (16, 30)-day window, volume is also statistically significant at conventional levels. Thus, after a TV campaign, returns reverse while volume remains significantly elevated. These results suggest that while there is a significant buying activity during the TV campaigns, there is also a significant selling activity once campaigns end.

Insert Figure 3

Figure 3 graphically depicts returns over the 60-day post-campaign period. There is a slow and steady decline throughout the 60 days. Volume is elevated, but there are no discernable trends over time.

In summary, the results from Section 3 indicate that external investor relations have a short-term effect on value, where the effect is driven exclusively by TV campaigns. TV exposure on both Bloomberg and CNBC is associated with immediate stock price and volume jumps, but the stock price gains completely reverse following a 60-day period once the TV campaign ends. Who do these TV campaigns target? We speculate that retail investors are the more likely audience for these campaigns. We attempt to shed more light on this question in the next section.

4. Who responds to external IR campaigns?

Bushee and Miller (2012) suggest that small firms hire external relations firms to capture the attention of institutional investors. Their 1998-2004 sample consists of 210 firms, about half of which are listed on NASDAQ and the rest on the OTC Bulletin Board and pink sheets. In our sample, 79% of the firms are listed on Nasdaq, 16% on NYSE/AMEX and 5% on OTC. While Bushee and Miller (2012) do not report the average firm size in their sample, given that half are listed OTC/pink sheets, most are likely small and comparable to the firms in our sample. While their results suggest that external IR firms predominantly cater to institutional clients, we conjecture that these IR campaigns are different in that they likely target retail clients. In Section 4.1, we first examine institutional and retail investor search behavior using abnormal institutional investor attention (AIA) from Bloomberg following Ben-Rephael, Da and Israelsen (2017) and Google search volume index following Da, Engelberg and Gao (2011), respectively. Next, we examine changes in analyst coverage around investor campaigns using changes in analyst earnings estimates and stock recommendations in Section 4.2. In Section 4.3, we examine changes in the ownership by institutional investors, insiders and retail investors.

4.1 *Investor search behavior*

Da, Engelberg, and Gao (2011) propose a measure of investor attention using search volume on Google. They find that Google search volume index (SVI) predicts higher two-week returns that subsequently reverse within a year. Drake, Roulstone, and Thornock (2012) examine SVI around earnings announcements and find it begins to increase about two weeks prior to the announcement, peaks at the earnings day and remains elevated beyond the announcement, suggesting that information diffusion is slow. On the other hand, Ben-Rephael, Da, and Israelsen (2017) show that institutional investor attention, as measured by abnormal views of firm-related news on the Bloomberg Terminal, responds more quickly to major news and precedes increases in Google SVI. We examine both measures to see if retail or institutional investor attention increases around external IR engagements.

Insert Table 6

We first examine Google search volume index (SVI). Google SVI is based on relative search volume. That is, it provides a scaled value relative to its peak in a given period. The peak value is given a score of 100 and all other points are relative to this value. Thus, a score of 80 indicates that search volume was 20% less than its peak. For consistency, we obtain Google SVI for each stock for the period from May 1, 2023, to December 31, 2024. As in previous tables, we focus on the various

investor relations activities. In these models, we include week fixed effects to control for differences in search activity over time. The results are presented in Table 6. The first three models examine SVI. Across the various IR activities, we find that only TV campaigns are significantly related to search volume. These results are consistent with the capital market responses documented in Tables 2, 3, and 4. Regarding control variables, various events are associated with increases in search behavior such as SEOs, delistings, spinoffs and reverse splits. These controls are precisely where attention should increase, which provides confidence in our estimates. Consistent with our conjecture, the results suggest that TV campaigns significantly increase retail attention.

Models 4 to 6 analyze institutional search volume. Following Ben-Rephael, Da and Israelsen (2017), we measure abnormal institutional attention (AIA) using the abnormal readership of firm-related news on the Bloomberg Terminal. Similar to Google SVI, Bloomberg AIA is also a relative value that is computed daily using a rolling 30-day window of each company's own readership levels on the Bloomberg Terminal. Values of 4, 3, 2, and 1 indicate readership activity in the top 96, 94, 90, and 80 percentiles of readership for that company. A value of 0 indicates no rank due to low readership activity (see also Appendix A, Table A.1). Models 4 and 5 include investor awareness and TV campaigns. Investor awareness is not related to institutional attention. Neither are TV campaigns. However, in model 6, we find that abnormal institutional attention is positively related to virtual conferences. Given that conference presentations almost exclusively target institutional investors (Bushee et al., 2011; Green et al., 2014), it is perhaps not surprising that institutional attention increases around these events. In fact, of all the investor awareness activities, virtual conferences are the only activity that exclusively caters to institutions. With respect to the control variables, none are significant, consistent with the premise that institutions generally do not pay attention to these firms.

4.2 *Analyst coverage*

Bushee and Miller (2012) find that firms that hire external investor relations firms experience significant increases in analyst coverage. Likewise, firms that initiate internal investor relations also experience an increase in analyst coverage (Kirk and Vincent, 2014). Sell-side analysts are a conduit to institutional investor attention; thus, if IR campaigns can attract analyst coverage, analysts might in turn direct institutional investors into the stock.

Insert Table 7 here

We provide two measures of analyst attention: the number of analysts providing quarterly earnings estimates and the number of analysts' recommendations, both of which are collected from Bloomberg. We first look at the number of analysts providing earnings estimates on Bloomberg in Table 7. The dependent variable is the change in the number of analysts issuing earnings estimates. Models 1, 2, and 3 suggest none of the investor relation activities are related to changes in analyst coverage. Similarly, in models 4, 5, and 6 the dependent variable is the change in the number analysts providing recommendations from the end of quarter $t-1$ to the end of quarter t . We again find no relation between the number of analysts providing recommendations and any type of external investor relations activity. With respect to controls, consistent with prior literature, analysts are more likely to cover larger firms (Bhushan, 1989; Chang et al., 2006). However, the results suggest that analyst coverage is negatively related to firm profitability within our sample, which is in contrast with the extant literature (i.e., La Porta et al., 2006; Lang et al., 2003). However, recall from Table 1 that the average ROA in this sample is less than -100% (3rd quartile, -29.4%), so almost all sample firms are unprofitable.

4.3 *Ownership changes*

In this subsection, we examine changes in ownership. If external investor relation campaigns successfully attract institutional investors, as the literature suggests, we should observe an increase in institutional ownership. An increase in institutional ownership perhaps will be the most direct evidence of the success of external investor relations campaigns, especially if firms want to attract institutions as part of their investor base. We collect ownership information from Bloomberg, which provides quarterly positions for institutional investors, insiders, and retail investors.¹⁴ The average ownership across institutional, insider, and retail investors is 16%, 16%, and 68%, respectively.

Insert Table 8

In Panel A of Table 8, we examine changes in institutional investor ownership between quarters $t-1$ and t . The main independent variables mirror the previous tables. In models 1 to 4, investor awareness and TV campaigns are not related to institutional investor ownership changes. Changes in institutional investor ownership are negatively related to ROA and to SEO announcements in the previous quarter. Interestingly, in models 5 and 6, *Podcast* is positive and marginally statistically

¹⁴ We collect data on institutional ownership and insider ownership using the Ownership Summary tab under the HDS function on the Bloomberg Terminal. Ownership is reported at the quarterly level and is relative to shares outstanding. Retail ownership is calculated as one minus institutional and insider ownership.

significant, suggesting that institutional investors are more likely to increase their ownership position when a firm is featured on a podcast.¹⁵ Despite the result in Table 6 that institutional interest on Bloomberg is amplified for firms that engage in a virtual conference, we find only weak evidence that virtual conferences impact ownership positions: the coefficient is positive, but not statistically significant.

In Panel B, we estimate the same regression for insider ownership. Investor awareness is insignificant in models 1 and 2. In model 3, *TV campaign* is negative and marginally significant ($t=-1.86$), but in model 4, once controls are introduced, it is not. In model 5, all investor relations coefficients are negative, but not statistically significant. Controls are introduced in model 6. As in model 5, there is no relation between investor relations activities and insider ownership. In summary, there is only weak evidence that insiders sell during TV campaigns, and no evidence they abnormally sell during investor awareness campaigns.

Panel C of Table 8 examines retail ownership. In models 1 and 2, investor awareness is not related to changes in retail investor ownership. However, in models 3 and 4, we find retail ownership is indeed positively related to TV exposure. The coefficients in both models suggest an increase of over 3% in retail ownership when a TV campaign exists. Models 5 and 6 reinforce this finding. The coefficient in model 6 is 3.81, suggesting that retail investors increase their ownership by 3.81% from the previous quarter following a TV campaign.

Overall, the ownership results suggest that after an external investor relations campaign, institutional ownership remains constant, insiders show weak evidence of selling during TV campaigns, and retail investors tend to buy during TV campaigns. The fact that stock prices rise sharply during TV campaigns but subsequently reverse suggests that these marketing efforts attract retail investors, who likely incur significant losses.

5. Conclusion

The role of investor relations (IR) has evolved from a peripheral communication function to a core strategic component of a firm's capital market presence. While larger firms typically build robust in-house IR teams, smaller firms often outsource IR services to external providers to boost visibility

¹⁵ Because investor awareness is highly correlated with podcasts and virtual conferences at the quarterly level, we do not include it as an explanatory variable in models 5 and 6.

and engagement with the investment community. This study leverages detailed disclosures on external IR campaigns to empirically assess their effectiveness. We find that these campaigns, particularly campaigns involving national television exposure, significantly affect stock returns and trading activity in the short run. The most substantial impact stems from TV ads and programming on CNBC and Bloomberg. Intraday, the market reacts almost immediately upon this TV exposure. Over the TV campaign period, CARs reach close to 20% and volume increases by a factor of 10.

However, the benefits of these IR campaigns appear to be short-lived. Our results show that while price and volume effects are immediate and substantial, these effects tend to reverse within 60 days of the campaign's conclusion. Furthermore, our analysis of investor attention and ownership changes reveals that the campaigns are primarily effective at attracting retail investors rather than institutions or analysts. Retail attention, measured via Google search trends, increases notably during campaign weeks, while institutional interest, measured via Bloomberg terminal activity, is only modestly affected and confined largely to virtual conferences. In fact, we find no evidence of increased institutional ownership or analyst engagement following IR campaigns.

Taken together, our findings suggest that external investor relations campaigns can be a powerful but temporary tool to drive short-term market visibility and trading activity. While they do not seem to attract meaningful long-term engagement from institutional investors or analysts, they do provide liquidity and exit opportunities for insiders, as evidenced by a decline in insider ownership during campaigns. These dynamics raise important questions about the sustainability of such IR strategies and the potential for retail investors to bear disproportionate downside risk once campaigns end. From a regulatory perspective, our findings raise questions about enhanced disclosure requirements.

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Figure 1

Returns and trading activity around TV campaigns

The figure plots average cumulative abnormal returns (CARs) and average relative trading volume for the 10 days before and the 10 days after the start of a TV campaign. The sample is obtained from RedChip's website (<https://www.redchip.com/>) and contains 111 TV campaigns between November 2023 and December 2024 for 55 stocks with available data on prices and trading volume. To calculate average CARs, we first calculate the daily returns of each stock in excess of the return of S&P500. We then accumulate the abnormal returns of each stock over the reported period and average the cumulative abnormal returns across all stocks for a given day. Relative trading volume is calculated by dividing the shares traded for each stock on each day by the stock's average daily trading volume during the 10 trading days before the start of a TV campaign.

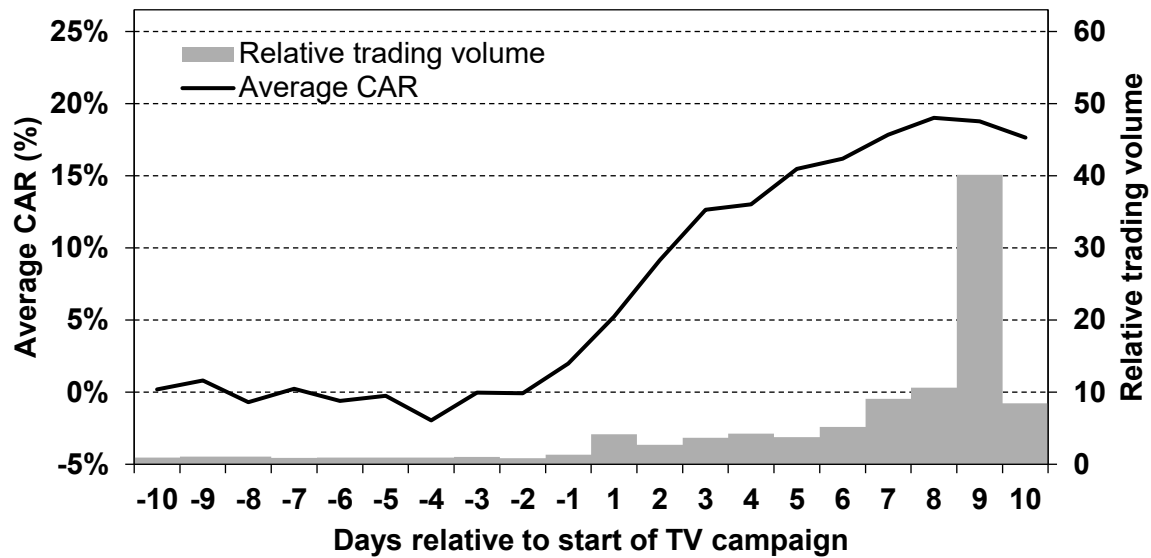


Figure 2

Intraday returns and trading activity around TV ads

The figure plots cumulative average returns (line, left axis) and average relative trading volume per minute (bars, right axis) within a ± 60 -minute period around the airing of TV ads on CNBC TV or Bloomberg TV between January 1, 2024, and October 4, 2025. For ads aired outside market hours, the period includes the last 60 minutes on the preceding trading day and the first 60 minutes on the subsequent trading day. Multiple ads for the same firm that air outside market hours and precede the same trading day are treated as a single observation. The sample contains 593 TV ads for 65 stocks. (A) includes all ads; (B) includes 137 ads from *Small Stocks, Big Money*, a 30-minute program produced by RedChip, that airs on Bloomberg TV Saturdays at 7:00 p.m.; and (C) includes 456 ads aired on CNBC TV. Cumulative average returns are computed by averaging minute-by-minute returns relative to the ad across all stocks and accumulating these averages over the ± 60 -minute period. Relative trading volume is calculated by dividing the shares traded for each stock in each minute by the stock's average per-minute trading volume during the 60 minutes preceding the ad.

(A) All TV ads

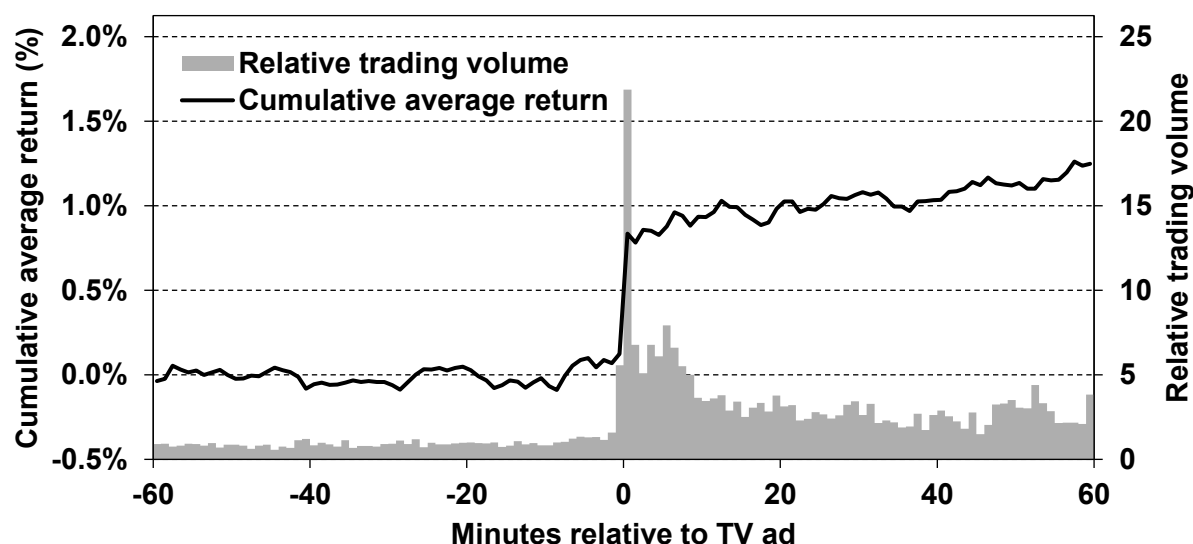
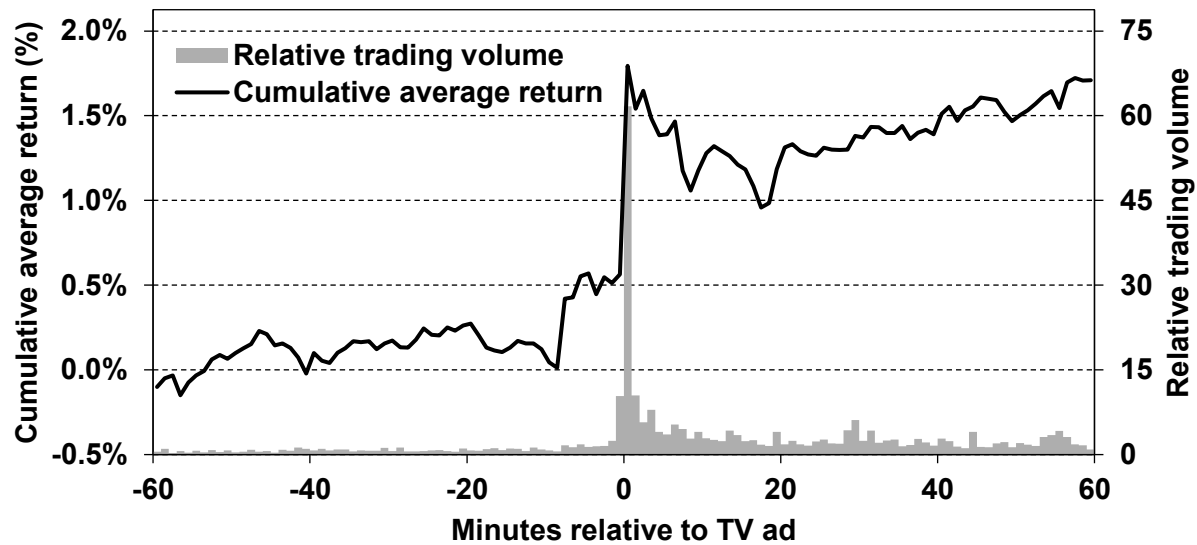


Figure 2 -- *continued*

(B) Bloomberg TV ads



(C) CNBC TV ads

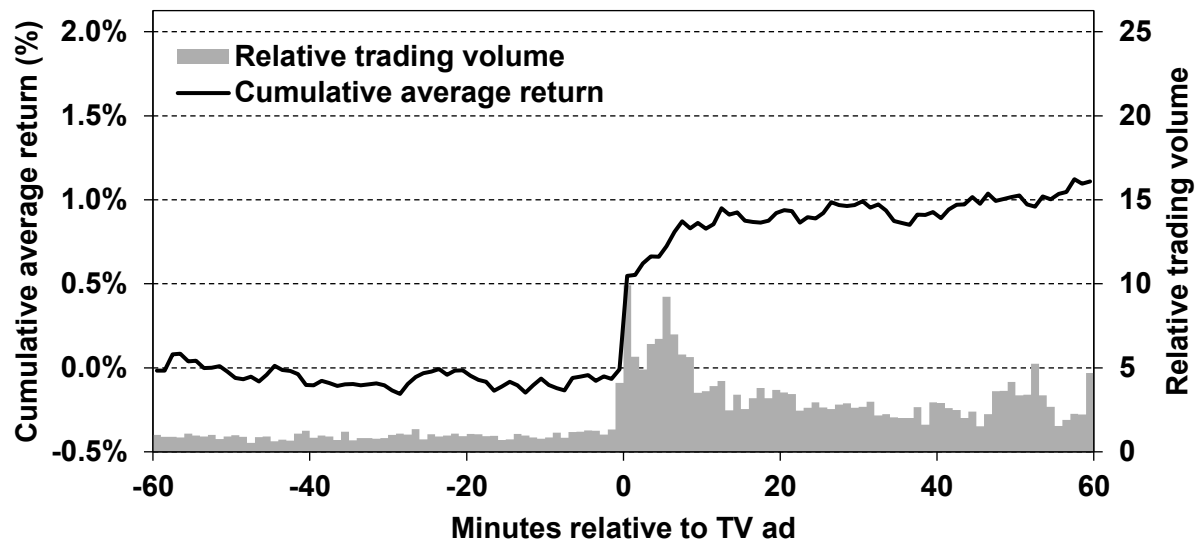


Figure 3. Returns and trading activity after the end of TV campaigns

The figure plots average cumulative abnormal returns (CARs) and average relative trading volume for the 60 trading days following the end of a TV campaign. The sample is obtained from RedChip's website (<https://www.redchip.com/>) and contains 111 TV campaigns between November 2023 and December 2024 for 55 stocks. Table A.2 in Appendix A provides the list of stocks. To calculate average CARs, we first calculate the daily returns of each stock in excess of the return of S&P500. We then accumulate the abnormal returns of each stock over the reported period and average the cumulative abnormal returns across all stocks for a given day. Relative trading volume is calculated by dividing the shares traded for each stock on each day by the stock's average daily trading volume during the 10 trading days before the start of a TV campaign.

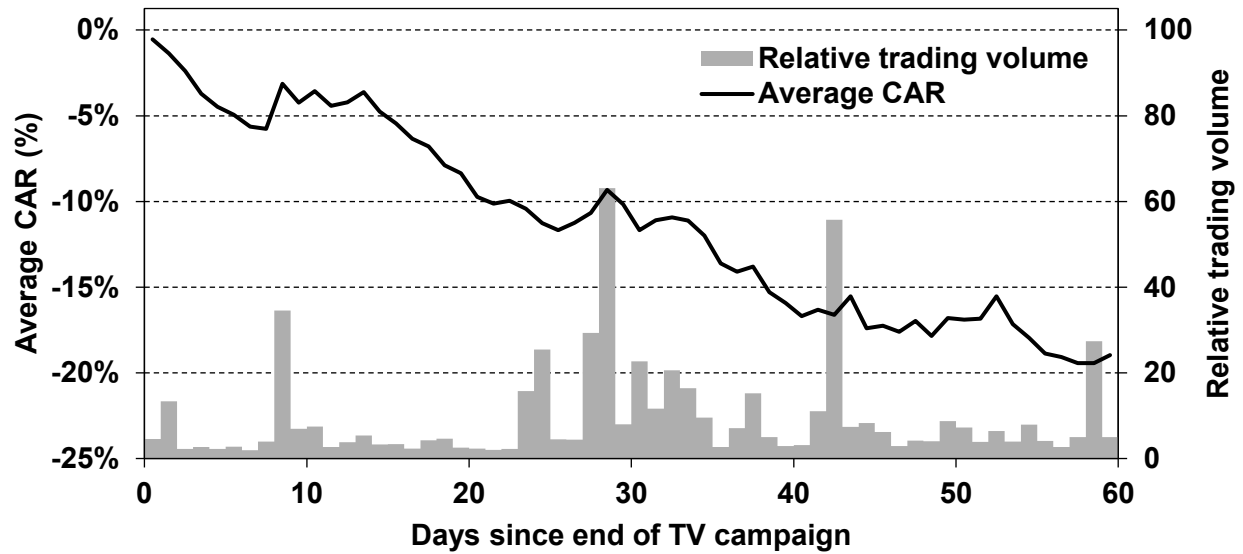


Table 1**Summary statistics**

The table presents summary statistics for stocks employing the investor awareness services of RedChip Companies Inc. between May 1, 2023, and December 31, 2024. The main sample is obtained from RedChip's website (<https://www.redchip.com>) and contains 57 stocks with data on the start and duration of investor awareness programs, TV campaigns, podcasts, Bloomberg TV appearances, and virtual conferences. Panel A reports the number of investor awareness events and the number of unique stocks that experience each event. Panel B presents summary statistics for the duration and fees of investor awareness programs and TV campaigns. Panel C presents summary statistics for daily excess returns, daily share turnover, daily market capitalization, and annual ROA where market cap and ROA are winsorized at the 1st and 99th percentiles. Panel C also presents summary statistics for indicator variables for whether the firm experiences an investment awareness program on day t , TV campaign on day t , podcast on day $t-1$, virtual conference on day $t-1$ as well as an IPO/uplisting, SEO, delisting, spinoff, acquisition, equity buyback, shareholder meeting, reverse split, or earnings announcement, all on calendar days $t-3$ to t inclusive. The panel further reports summary statistics for search volume index and abnormal institutional attention at the weekly level as well as the number of analysts providing earnings estimates, number of analysts providing recommendations, institutional ownership, insider ownership, and retail ownership at the quarterly level. All variables are described in Appendix A, Table A.1. We obtain data on daily prices and shares traded between May 1, 2023, and December 31, 2024, from the Bloomberg Terminal. Additional Bloomberg Terminal data include assets, earnings, IPOs/uplistings, equity issues, exchange delistings, spinoffs, acquisitions, equity buybacks, shareholder meetings, reverse splits, earnings announcements, abnormal institutional attention, number of analysts providing recommendations, number of analysts providing earnings estimates, and ownership. Finally, we use Google Trends to gather data on each stock's weekly search volume index based on its ticker over the examined period.

Panel A: Investor awareness events

Event	# events	# stocks	% of sample
Investor awareness	34	34	59.65
TV campaign	111	57	100.00
Podcast	51	30	52.63
Bloomberg TV	120	33	57.89
Virtual conference	70	29	50.88

Panel B: Duration and fees of investor awareness programs and TV campaigns

Variable	Obs.	Mean	Std. dev.	1 st quartile	Median	3 rd quartile
<i>Investor awareness programs</i>						
# months of program	34	10.94	8.56	6.00	12.00	12.00
Monthly cash fee (\$)	34	8,591.91	2,846.33	7,500.00	9,000.00	10,000.00
% with performance-based fee	34	55.88	50.40	0.00	100.00	100.00
<i>TV campaigns</i>						
# days of TV campaign	111	16.02	8.21	12.00	14.00	18.00
Fee per TV campaign (\$)	111	41,301.80	16,900.91	26,666.67	44,000.00	50,000.00
Fee per day of TV campaign (\$)	111	2,918.48	1,200.82	1,973.68	2,857.14	3,571.43
% with performance-based fee	111	1.80	13.36	0.00	0.00	0.00

Table 1 -- *continued*

Panel C: Summary statistics of variables

Variable	Obs.	Mean	Std. dev.	1 st quartile	Median	3 rd quartile
<i>Daily sample</i>						
Daily excess return (%)	22,202	− 0.09	8.65	− 3.42	− 0.55	2.38
Daily share turnover (%)	22,202	7.04	126.94	0.16	0.44	1.35
Market cap (\$, mil)	22,202	49.47	63.50	9.84	25.74	60.92
ROA for previous calendar year (%)	22,202	− 104.07	160.95	− 134.13	− 61.12	− 29.38
Investor awareness (%)	22,202	21.98	48.38	0.00	0.00	100.00
TV campaign (%)	22,202	5.76	23.30	0.00	0.00	0.00
Podcast (%)	22,202	0.23	4.79	0.00	0.00	0.00
Virtual conference (%)	22,202	0.30	5.49	0.00	0.00	0.00
IPO/uplisting (%)	22,202	0.14	3.79	0.00	0.00	0.00
SEO (%)	22,202	1.27	11.18	0.00	0.00	0.00
Delisting (%)	22,202	0.24	4.93	0.00	0.00	0.00
Spinoff (%)	22,202	0.08	2.77	0.00	0.00	0.00
Acquisition (%)	22,202	0.27	5.15	0.00	0.00	0.00
Equity buyback (%)	22,202	0.29	5.40	0.00	0.00	0.00
Shareholder meeting (%)	22,202	1.02	10.04	0.00	0.00	0.00
Reverse split (%)	22,202	0.27	5.15	0.00	0.00	0.00
Earnings announcement (%)	22,202	3.07	17.24	0.00	0.00	0.00
<i>Weekly sample</i>						
Search volume index	4,590	25.43	27.78	0.00	17.00	46.00
Abnormal institutional attention (×100)	4,590	0.60	10.72	0.00	0.00	0.00
<i>Quarterly sample</i>						
# analysts providing earnings estimates	372	0.54	0.91	0.00	0.00	1.00
# analysts providing recommendations	372	1.32	1.47	0.00	1.00	2.00
Institutional ownership (%)	363	15.81	22.03	3.33	10.13	20.46
Insider ownership (%)	363	15.75	16.26	2.30	11.40	23.78
Retail ownership (%)	363	68.45	26.17	56.78	72.05	87.02

Table 2

Investor awareness services and stock returns

The table reports coefficient estimates (t -statistics in parentheses) from regression models where the dependent variable is each stock's daily return in excess of S&P500 (Panel A) and the natural logarithm of each stock's daily share turnover (Panel B). The sample consists of firm-days and contains 57 stocks employing the investor awareness services of RedChip Companies Inc. and is obtained from RedChip's website (<https://www.redchip.com>). For each stock, we obtain daily prices and shares traded between May 1, 2023, and December 31, 2024, from the Bloomberg Terminal. We use the Bloomberg Terminal to collect additional data on IPOs/uplistings, SEOs, exchange delistings, spinoffs, acquisitions, equity buybacks, shareholder meetings, reverse splits, and earnings announcements. As explanatory variables, we use indicator variables equal to 1 if a stock is experiencing a specific investor awareness event; equal to 0 otherwise. For investor awareness events, we consider whether the stock is under an ongoing investor awareness program on a given day, whether the stock is undergoing a TV campaign on a given day, and whether the trading day follows a podcast or a virtual conference featuring the stock. *Market cap (log)* and *ROA* are the firm's natural logarithm of its stock price and return on assets, respectively. *IPO/uplisting* and *SEO* are indicators if the firm completed an IPO or SEO during calendar day $t-3$ to t , respectively, zero otherwise. *Delisting*, *Reverse split*, *Spinoff*, *Equity buyback*, and *Acquisition* represent events in which the company announced it was delisting from the stock exchange or engaging in a reverse split, spinoff, equity buyback or acquisition, respectively. Each of these are indicators that the given event occurred on calendar days $t-3$ to t relative to the given trading day, zero otherwise. *Director* and *Earnings* are indicator variables equal to one if the firm had a shareholder meeting or announced earnings on calendar days $t-3$ to t , respectively. See Appendix A, Table A.1, for more detailed information on variable definitions. All models in Panel A control for date fixed effects while all models in Panel B control for firm and date fixed effects. Standard errors are clustered at the firm level. *, **, and *** indicate significance at the 0.10, 0.05, and 0.01 levels.

Table 2 -- *continued*

Panel A: Dependent variable is daily excess return (%)						
	(1)	(2)	(3)	(4)	(5)	(6)
Investor awareness	0.14 (1.19)	0.10 (0.83)		0.04 (0.29)		0.04 (0.35)
TV campaign			1.78*** (4.64)	1.85*** (4.85)		1.85*** (4.87)
Podcast					− 0.10 (− 0.12)	− 0.14 (− 0.16)
Virtual conference					− 0.64 (− 1.32)	− 0.91* (− 1.80)
Market cap (log)		− 0.10* (− 1.74)		− 0.11* (− 1.91)		− 0.11* (− 1.90)
ROA		0.03 (1.03)		0.03 (1.14)		0.03 (1.14)
IPO/uplisting		− 2.07 (− 0.55)		− 2.00 (− 0.53)		− 2.00 (− 0.53)
SEO		− 4.21*** (− 3.38)		− 4.29*** (− 3.49)		− 4.30*** (− 3.50)
Delisting		− 4.28* (− 1.81)		− 4.24* (− 1.78)		− 4.24* (− 1.78)
Spinoff		2.38 (0.83)		2.54 (0.91)		2.54 (0.90)
Acquisition		1.47** (2.01)		1.45* (1.86)		1.45* (1.86)
Equity buyback		1.36 (1.52)		1.39 (1.55)		1.38 (1.54)
Shareholder meeting		0.23 (0.38)		0.17 (0.28)		0.17 (0.28)
Reverse split		− 4.41*** (− 3.64)		− 4.47*** (− 3.87)		− 4.47*** (− 3.87)
Earnings announcement		− 0.11 (− 0.20)		− 0.14 (− 0.25)		− 0.14 (− 0.25)
Date fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Obs.	22,202	22,202	22,202	22,202	22,202	22,202
Adjusted R-squared (%)	1.16	1.59	1.38	1.82	1.15	1.81

Table 2 -- *continued*

Panel B: Dependent variable is daily share turnover (log)						
	(1)	(2)	(3)	(4)	(5)	(6)
Investor awareness	0.21 (0.90)	0.23 (0.96)		0.17 (0.74)		0.17 (0.74)
TV campaign			0.90*** (7.02)	0.84*** (6.61)		0.84*** (6.60)
Podcast					0.05 (0.23)	− 0.04 (− 0.21)
Virtual conference					0.17 (1.12)	0.05 (0.30)
Market cap (log)		0.23* (1.75)		0.20 (1.60)		0.20 (1.60)
ROA		0.04 (0.40)		0.05 (0.43)		0.05 (0.43)
IPO/uplisting dummy		0.94** (2.05)		0.97** (2.20)		0.97** (2.20)
SEO		1.20*** (7.87)		1.17*** (7.89)		1.17*** (7.90)
Delisting		0.96** (2.08)		0.97** (2.08)		0.97** (2.08)
Spinoff		0.20 (0.29)		0.21 (0.33)		0.21 (0.33)
Acquisition		0.64* (1.99)		0.62* (1.85)		0.62* (1.85)
Equity buyback		0.09 (0.34)		0.10 (0.39)		0.10 (0.39)
Shareholder meeting		0.37*** (2.77)		0.35** (2.65)		0.35** (2.64)
Reverse split		1.07*** (4.31)		1.05*** (4.03)		1.05*** (4.03)
Earnings announcement		0.28*** (4.49)		0.27*** (4.53)		0.27*** (4.53)
Firm and date fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Obs.	22,202	22,202	22,202	22,202	22,202	22,202
Adjusted R-squared (%)	44.10	45.34	45.16	46.36	43.98	46.36

Table 3**Returns and trading activity before and during TV campaigns**

The table reports means, medians, and standard deviations for cumulative abnormal returns (Panel A) and relative trading volume (Panel B) before and during TV campaigns. We examine the 10 trading days before the start of a TV campaign as well as trading days 1 to 5 and 6 to 10 after the start of a TV campaign. The reported t -statistics test whether the average cumulative abnormal return is equal to 0 and the average relative trading volume is equal to 1. The sample is obtained from RedChip's website (<https://www.redchip.com/>) and contains 111 TV campaigns between November 2023 and December 2024 for 55 stocks with available data on prices and trading volume. Table A.2 in Appendix A provides the list of stocks. To calculate the cumulative abnormal return of each stock, we sum its daily returns in excess of the return of S&P500 over each of the examined periods. Relative trading volume is calculated by dividing the shares traded for each stock on each day by the stock's average daily trading volume during the 10 trading days before the start of a TV campaign. For each stock, we then average the daily relative trading volume over each of the examined periods. *, **, and *** indicate significance at the 0.10, 0.05, and 0.01 levels.

Panel A: Cumulative abnormal returns (%)

	Trading days (-10, -1)	Trading days (1, 5)	Trading days (6, 10)	Trading days (1, 10)
Mean	1.74	13.50	2.17	15.67
Median	-2.58	7.87	-2.05	10.54
Std. dev.	30.73	24.02	23.43	34.95
t -statistic (mean = 0)	0.60	5.92***	0.98	4.72***
Obs.	111	111	111	111

Panel B: Daily trading volume relative to days -10 to -1 before start of TV campaign

	Trading days (-10, -1)	Trading days (1, 5)	Trading days (6, 10)	Trading days (1, 10)
Mean	0.00	3.71	14.69	9.20
Median	0.00	1.58	1.52	1.77
Std. dev.	0.00	5.97	78.44	39.38
t -statistic (mean = 1)	0.00	4.78***	1.84*	2.19**
Obs.	111	111	111	111

Table 4**Stock returns and trading volume after TV ads**

The table examines cumulative returns and relative trading volume for the sample of TV ads. Panel A provides summary statistics of cumulative returns and relative trading volume for five periods: 1 to 15 minutes, 16 to 30 minutes, 31 to 45 minutes, 46 to 60 minutes, and 1 to 60 minutes all after a TV ad. Panel B provides estimates from regression models (t -statistics in parentheses) where the dependent variables are the cumulative return for minutes 1 to 15 (model 1) and minutes 1 to 60 (model 2) and the average relative trading volume for minutes 1 to 15 (model 3) and minutes 1 to 60 (model 4) after a TV ad. The sample contains TV ads on CNBC TV or Bloomberg TV between January 1, 2024, and October 4, 2025. For ads aired outside market hours, we use data for the last 60 minutes on the preceding trading day and the first 60 minutes on the subsequent trading day. Multiple ads for the same firm that air outside market hours and precede the same trading day are treated as a single observation. The sample contains 593 TV ads for 65 stocks. Cumulative returns are computed by accumulating minute-by-minute returns relative to the ad for each stock and each period. Relative trading volume is calculated by first dividing the shares traded for each stock in each minute by the stock's average per-minute trading volume during the 60 minutes preceding the ad and then averaging the resulting minute-by-minute relative trading volume for each stock and each period. In Panel B, *CNBC (market hours)* and *CNBC (after hours)* are indicators for the ad airing on CNBC during and outside of market hours, respectively, and *Bloomberg* is an indicator for the ad appearing on Bloomberg TV, which is always on Saturdays. To avoid perfect multicollinearity, the models do not include an intercept term. As additional explanatory variables, we include *Market cap (log)*, defined as the market capitalization of the firm one trading day before the TV ad; *ROA*, defined as the firm's return on assets from its most recent annual report; *Avg. turnover*, defined as daily share turnover during the previous month; and *Avg. excess return*, defined as the stock's average excess return over the previous month. Models 3 and 4 further include hour fixed effects, while excluding the effect for 9:00 am to avoid perfect multicollinearity. To facilitate the interpretation of the indicator variables, we standardize *Market cap (log)*, *Avg. turnover*, and *Avg. excess return* by subtracting their respective means and dividing by their standard deviations. All standard errors are clustered at the firm level. *, **, and *** indicate significance at the 0.10, 0.05, and 0.01 levels. ^a, ^b, and ^c indicate that the coefficient is significantly different from the respective coefficient on the "TV ad is aired on CNBC during market hours" variable.

Panel A: Summary statistics of returns and trading volume at 15-minute intervals after TV ad

	Obs.	Mean	Median	Std. dev.	t -statistic
<i>Cumulative return (%)</i>					(mean = 0)
1 to 15 minutes after TV ad	593	0.87	0.49	4.02	5.26***
16 to 30 minutes after TV ad	593	0.07	0.00	2.37	0.76
31 to 45 minutes after TV ad	593	0.08	0.00	2.23	0.83
46 to 60 minutes after TV ad	593	0.11	0.00	2.09	1.25
1 to 60 minutes after TV ad	593	1.12	0.67	4.86	5.64***
<i>Relative trading volume</i>					(mean = 1)
1 to 15 minutes after TV ad	593	6.16	1.92	23.55	6.37***
16 to 30 minutes after TV ad	593	2.90	0.82	12.47	5.67***
31 to 45 minutes after TV ad	593	2.38	0.86	7.58	7.63***
46 to 60 minutes after TV ad	593	2.84	0.65	16.28	4.24***
1 to 60 minutes after TV ad	593	3.57	1.46	12.15	7.16***

Table 4 -- *continued*

Panel B: Regression analysis

Dependent variable:	Cumulative return after TV ad (%)		Average relative trading volume after TV ad	
	Minutes 1 to 15 (1)	Minutes 1 to 60 (2)	Minutes 1 to 15 (3)	Minutes 1 to 60 (4)
CNBC (market hours)	0.85*** (4.19)	1.15*** (4.31)	1.79*** (4.73)	1.40*** (5.29)
CNBC (after hours)	1.03*** (4.46)	1.10*** (3.80)	4.34***, a (5.55)	2.80***, a (7.21)
Bloomberg	0.74** (2.30)	1.14*** (2.71)	8.24***, a (6.60)	3.88***, a (7.81)
Market cap (log)	− 0.54*** (− 3.80)	− 0.76*** (− 3.47)	− 1.36** (− 2.31)	− 0.77*** (− 2.77)
ROA	− 0.08 (− 0.50)	0.07 (0.35)	− 0.45 (− 0.71)	− 0.19 (− 0.65)
Avg. turnover	− 0.72*** (− 4.51)	− 0.72*** (− 3.09)	− 1.11** (− 2.02)	− 0.57** (− 2.15)
Avg. excess return	0.29 (1.67)	0.41* (1.87)	− 0.28 (− 0.52)	− 0.03 (− 0.14)
Obs.	593	593	593	593
Adjusted R-squared (%)	7.66	7.77	20.87	28.98

Table 5**Returns and trading activity after TV campaigns**

The table reports means, medians, and standard deviations for cumulative abnormal returns (Panel A) and relative trading volume (Panel B) after TV campaigns. We examine four periods: trading days 1 to 15, 16 to 30, 31 to 45, and 46 to 60, all after the end of a TV campaign. Panel A further examines the full period of 60 trading days after the end of a TV campaign. The reported t -statistics test whether the average cumulative abnormal return is equal to 0 and the average relative trading volume is equal to 1. The sample is obtained from RedChip's website (<https://www.redchip.com/>) and contains 111 TV campaigns between November 2023 and December 2024 for 55 stocks with available data on prices and trading volume. Table A.2 in Appendix A provides the list of stocks. To calculate the cumulative abnormal return of each stock, we accumulate its daily returns in excess of the return of S&P500 over each of the examined periods. Relative trading volume is calculated by dividing the shares traded for each stock on each day by the stock's average daily trading volume during the 10 days before the start of a TV campaign. For each stock, we then average the daily relative trading volume over each of the examined periods. *, **, and *** indicate significance at the 0.10, 0.05, and 0.01 levels.

Panel A: Cumulative abnormal returns (%)

	Trading days after end (1, 15)	Trading days after end (16, 30)	Trading days after end (31, 45)	Trading days after end (46, 60)	Trading days after end (1, 60)
Mean	- 4.75	- 5.41	- 7.24	- 1.57	- 18.97
Median	- 8.55	- 9.44	- 8.39	- 2.30	- 28.56
Std. dev.	37.04	38.04	26.37	26.68	57.91
t -statistic (mean=0)	- 1.35	- 1.50	- 2.89***	- 0.62	- 3.45***
Obs.	111	111	111	111	111

Panel B: Daily trading volume relative to days -10 to -1 before start of TV campaign

	Trading days after end (1, 15)	Trading days after end (16, 30)	Trading days after end (31, 45)	Trading days after end (46, 60)	Trading days after end (1, 60)
Mean	6.54	11.62	13.31	6.65	9.53
Median	1.36	1.00	1.05	1.27	1.77
Std. dev.	26.02	73.82	56.59	23.82	36.96
t -statistic (mean = 1)	2.24**	1.52	2.29**	2.50**	2.43**
Obs.	111	111	111	111	111

Table 6**Investor awareness services and firm visibility**

The table reports coefficient estimates (t -statistics in parentheses) from regression models where the dependent variables are the change in average weekly search volume (models 1 to 3) and abnormal institutional attention (models 4 to 6) from week $t-1$ to week t . We use Google Trends to obtain the weekly search volume index for the stock's ticker between May 1, 2023, and December 31, 2024. We standardize the index at the firm level. We use the Bloomberg Terminal to obtain a daily measure of abnormal readership activity. We then average the daily measure at the weekly level. As explanatory variables, we use indicator variables equal to 1 if a stock is experiencing a specific investor awareness event; equal to 0 otherwise. For investor awareness events, we consider whether the stock has an ongoing investor awareness program, a TV campaign, a podcast, or a virtual conference featuring the stock during week t and during week $t-1$. All models also control for market capitalization, averaged over the week, and for variables indicating whether a stock has an IPO/uplisting, SEO, exchange delisting, spinoff, acquisition, equity buyback, shareholder meeting, reverse split, or earnings announcement during the previous week. All models control for week fixed effects. All variables are described in Appendix A, Table A.1. The sample contains 57 stocks employing the investor awareness services of RedChip Companies Inc. and is obtained from RedChip's website (<https://www.redchip.com>). We use the Bloomberg Terminal to collect additional data on share prices, shares outstanding, IPOs/uplistings, SEOs, exchange delistings, spinoffs, acquisitions, equity buybacks, shareholder meetings, reverse splits, and earnings announcements. The coefficient estimates in models 4, 5, and 6 are multiplied by 100 for readability. Standard errors are clustered at the firm level. *, **, and *** indicate significance at the 0.10, 0.05, and 0.01 levels.

Dependent variable:	Weekly change in search volume index			Weekly change in abnormal institutional attention		
	(1)	(2)	(3)	(4)	(5)	(6)
Investor awareness $_t$	-0.03 (-0.18)	-0.05 (-0.32)	-0.05 (-0.33)	-0.28 (-0.97)	-0.27 (-1.02)	-0.27 (-1.02)
Investor awareness $_{t-1}$	0.02 (0.12)	0.04 (0.24)	0.04 (0.25)	0.08 (0.20)	0.07 (0.18)	0.09 (0.22)
TV campaign $_t$		0.42*** (4.06)	0.42*** (4.02)		-0.28 (-0.21)	-0.29 (-0.22)
TV campaign $_{t-1}$		-0.36*** (-3.31)	-0.36*** (-3.28)		0.21 (0.19)	0.20 (0.18)
Podcast $_t$			-0.00 (-0.01)			-0.14 (-0.33)
Podcast $_{t-1}$			-0.06 (-0.51)			0.37 (0.67)
Virtual conference $_t$			0.11 (1.24)			2.45* (1.74)
Virtual conference $_{t-1}$			0.01 (0.05)			-3.45 (-1.25)

Table 6 -- *continued*

Dependent variable:	Weekly change in search volume index			Weekly change in abnormal institutional attention		
	(1)	(2)	(3)	(4)	(5)	(6)
Market cap (log)	0.01 (0.80)	0.01 (0.67)	0.01 (0.63)	− 0.09 (− 1.01)	− 0.09 (− 0.99)	− 0.09 (− 0.97)
ROA	0.01 (1.64)	0.01 (1.63)	0.01 (1.59)	− 0.01 (− 0.25)	− 0.01 (− 0.26)	− 0.01 (− 0.25)
IPO/uplisting	− 0.14 (− 0.21)	− 0.15 (− 0.22)	− 0.15 (− 0.22)	0.64 (1.03)	0.64 (1.02)	0.63 (1.04)
SEO	0.38*** (2.82)	0.37*** (2.79)	0.38*** (2.80)	2.01 (1.15)	2.01 (1.15)	2.00 (1.15)
Delisting	0.41** (2.52)	0.39** (2.48)	0.39** (2.47)	0.43 (1.28)	0.44 (1.28)	0.44 (1.25)
Spinoff	0.64*** (2.85)	0.64*** (2.92)	0.65*** (2.97)	80.64 (0.99)	80.63 (0.99)	80.64 (0.99)
Acquisition	0.25 (1.47)	0.23 (1.31)	0.24 (1.31)	0.49 (0.77)	0.50 (0.76)	0.65 (0.98)
Equity buyback	0.04 (0.34)	0.05 (0.43)	0.05 (0.44)	0.31 (1.21)	0.31 (1.18)	0.31 (1.19)
Shareholder meeting	− 0.05 (− 0.51)	− 0.06 (− 0.60)	− 0.06 (− 0.60)	− 0.60 (− 1.26)	− 0.60 (− 1.22)	− 0.65 (− 1.36)
Reverse split	0.62*** (3.14)	0.59*** (3.02)	0.59*** (2.99)	0.06 (0.18)	0.08 (0.23)	0.12 (0.33)
Earnings announcement	0.13* (1.99)	0.13* (1.88)	0.13* (1.89)	0.46 (0.73)	0.47 (0.73)	0.47 (0.74)
Week fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Obs.	4,590	4,590	4,590	4,590	4,590	4,590
Adjusted R-squared (%)	1.39	2.12	2.05	5.6	5.56	5.69

Table 7**Investor awareness services and analyst coverage**

The table reports coefficient estimates (*t*-statistics in parentheses) from regression models where the dependent variables are the change in the number of analysts providing earnings estimates (models 1 to 3) and the number of analysts providing recommendations (models 4 to 6) from end of quarter *t*-1 to end of quarter *t*. We use the Bloomberg Terminal to obtain the number of analysts providing earnings estimates and the number of analysts with outstanding buy/hold/sell recommendations at the end of each quarter. As explanatory variables, we use indicator variables equal to 1 if a stock is experiencing a specific investor awareness event; equal to 0 otherwise. For investor awareness events, we consider whether the stock has an ongoing investor awareness program, a TV campaign, a podcast, or a virtual conference featuring the stock during the quarter. The models also control for market capitalization at the beginning of the quarter, profitability (ROA) from the most recent annual report, and for variables indicating whether a stock has an IPO/uplisting, SEO, exchange delisting, spinoff, acquisition, equity buyback, shareholder meeting, or reverse split during the quarter. All models control for quarter fixed effects. All variables are described in Appendix A, Table A.1. The sample contains 57 stocks employing the investor awareness services of RedChip Companies Inc. and is obtained from RedChip's website (<https://www.redchip.com>). We use the Bloomberg Terminal to collect additional data on share prices, shares outstanding, IPOs/uplistings, SEOs, exchange delistings, spinoffs, acquisitions, equity buybacks, shareholder meetings, and reverse splits. All coefficients are multiplied by 100 for readability. Standard errors are clustered at the firm level. *, **, and *** indicate significance at the 0.10, 0.05, and 0.01 levels.

Dependent variable:	Quarterly change in # analysts providing earnings estimates			Quarterly change in # analysts providing recommendations		
	(1)	(2)	(3)	(4)	(5)	(6)
Investor awareness	- 3.69 (- 0.75)	- 4.60 (- 0.88)		- 0.27 (- 0.06)	0.25 (0.05)	
TV campaign		6.57 (0.76)	6.55 (0.73)		- 3.85 (- 0.53)	- 3.56 (- 0.47)
Podcast			- 6.89 (- 0.83)			- 2.02 (- 0.24)
Virtual conference			- 0.04 (- 0.01)			- 0.10 (- 0.01)

Table 7 -- *continued*

Dependent variable:	Quarterly change in # analysts providing earnings estimates			Quarterly change in # analysts providing recommendations		
	(1)	(2)	(3)	(4)	(5)	(6)
Market cap (log)	6.58*** (4.21)	6.47*** (4.12)	6.54*** (4.11)	3.14 (1.60)	3.17 (1.63)	3.15 (1.63)
ROA	− 2.66** (− 2.19)	− 2.64** (− 2.16)	− 2.71** (− 2.14)	− 2.23* (− 1.68)	− 2.24* (− 1.70)	− 2.25 (− 1.67)
IPO/uplisting	− 2.44 (− 0.25)	− 3.03 (− 0.31)	− 3.01 (− 0.30)	12.60 (1.29)	12.97 (1.32)	13.03 (1.31)
SEO	1.12 (0.18)	0.80 (0.13)	1.08 (0.17)	− 1.85 (− 0.34)	− 1.67 (− 0.30)	− 1.74 (− 0.32)
Delisting	2.00 (0.14)	2.58 (0.18)	3.06 (0.23)	− 8.88* (− 1.70)	− 9.24* (− 1.68)	− 9.01 (− 1.48)
Spinoff	24.00 (1.22)	25.65 (1.24)	24.02 (1.26)	1.31 (0.35)	0.37 (0.09)	0.32 (0.08)
Acquisition	− 8.48 (− 0.65)	− 7.99 (− 0.62)	− 8.94 (− 0.68)	− 9.20 (− 1.30)	− 9.48 (− 1.33)	− 9.49 (− 1.32)
Equity buyback	5.10 (0.45)	5.73 (0.50)	5.53 (0.47)	2.72 (0.30)	2.34 (0.26)	2.12 (0.23)
Shareholder meeting	3.63 (0.64)	3.15 (0.55)	3.19 (0.54)	− 0.21 (− 0.04)	0.06 (0.01)	0.01 (0.00)
Reverse split	9.33 (0.93)	8.98 (0.90)	8.79 (0.87)	− 5.79 (− 0.98)	− 5.63 (− 0.95)	− 5.92 (− 0.98)
Quarter fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Obs.	372	372	372	372	372	372
Adjusted R-squared (%)	4.11	4.11	3.87	− 0.20	− 0.37	− 0.63

Table 8

Investor awareness programs and change in ownership

The table reports coefficient estimates (t -statistics in parentheses) from regression models where the dependent variables are the change in institutional ownership (Panel A), the change in insider ownership (Panel B), and the change in retail ownership (Panel C) from end of quarter $t-1$ to end of quarter t . We use the Bloomberg Terminal to obtain quarterly ownership data at the end of each quarter. As explanatory variables, we use indicator variables equal to 1 if a stock is experiencing a specific investor awareness event; equal to 0 otherwise. For investor awareness events, we consider whether the stock has an ongoing investor awareness program, a TV campaign, a podcast, or a virtual conference featuring the stock during the quarter. The models also control for market capitalization at beginning of the quarter, profitability (ROA) from the most recent annual report, and for variables indicating whether a stock has an IPO/uplisting, SEO, exchange delisting, spinoff, acquisition, equity buyback, shareholder meeting, or reverse split during the quarter. All models control for quarter fixed effects. All variables are described in Appendix A, Table A.1. The sample contains 56 stocks employing the investor awareness services of RedChip Companies Inc. and is obtained from RedChip's website (<https://www.redchip.com>) with available ownership data from the Bloomberg Terminal. We use the Bloomberg Terminal to collect additional data on share prices, shares outstanding, IPOs/uplistings, SEOs, exchange delistings, spinoffs, acquisitions, equity buybacks, shareholder meetings, and reverse splits. Standard errors are clustered at the firm level. *, **, and *** indicate significance at the 0.10, 0.05, and 0.01 levels.

Table 8 -- *continued*

Panel A: Dependent variable is the quarterly change in institutional ownership (%)						
	(1)	(2)	(3)	(4)	(5)	(6)
Investor awareness	0.11 (0.07)	0.09 (0.06)				
TV campaign			– 1.95 (– 1.24)	– 1.99 (– 1.21)	– 2.75 (– 1.54)	– 2.73 (– 1.45)
Podcast					3.36* (1.68)	3.80* (1.83)
Virtual conference					2.27 (1.32)	1.64 (0.98)
Market cap (log)		– 0.24 (– 0.55)		– 0.21 (– 0.49)		– 0.17 (– 0.40)
ROA		– 0.37* (– 1.83)		– 0.38* (– 1.87)		– 0.36* (– 1.70)
IPO/uplisting		8.66 (0.82)		8.64 (0.82)		8.40 (0.85)
SEO		– 1.62* (– 1.88)		– 1.56* (– 1.85)		– 1.62* (– 1.96)
Delisting		– 9.32 (– 1.08)		– 9.48 (– 1.11)		– 9.66 (– 1.10)
Spinoff		0.16 (0.13)		– 0.27 (– 0.21)		– 0.66 (– 0.42)
Acquisition		– 0.01 (– 0.01)		– 0.09 (– 0.06)		– 0.02 (– 0.01)
Equity buyback		– 0.14 (– 0.12)		– 0.38 (– 0.31)		– 0.05 (– 0.04)
Shareholder meeting		– 0.30 (– 0.22)		– 0.18 (– 0.13)		– 0.02 (– 0.01)
Reverse split		– 1.33 (– 0.50)		– 1.27 (– 0.48)		– 0.67 (– 0.25)
Quarter fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Obs.	363	363	363	363	363	363
Adjusted R-squared (%)	– 0.62	0.87	– 0.23	1.29	0.63	2.11

Table 8 -- *continued*

Panel B: Dependent variable is the quarterly change in insider ownership (%)						
	(1)	(2)	(3)	(4)	(5)	(6)
Investor awareness	– 0.49 (– 0.67)	– 0.84 (– 1.08)				
TV campaign			– 1.53* (– 1.86)	– 1.29 (– 1.46)	– 1.30 (– 1.57)	– 1.23 (– 1.29)
Podcast					– 1.06 (– 1.04)	– 1.85 (– 1.58)
Virtual conference					– 0.59 (– 0.61)	0.51 (0.51)
Market cap (log)		0.39 (1.54)		0.42 (1.57)		0.42 (1.59)
ROA		– 0.24 (– 0.52)		– 0.25 (– 0.50)		– 0.26 (– 0.55)
IPO/uplisting		– 1.99 (– 0.70)		– 1.91 (– 0.67)		– 1.88 (– 0.65)
SEO		– 3.42*** (– 3.41)		– 3.30*** (– 3.30)		– 3.36*** (– 3.25)
Delisting		8.62 (1.46)		8.46 (1.45)		8.77 (1.50)
Spinoff		0.25 (0.37)		– 0.21 (– 0.29)		– 0.55 (– 0.60)
Acquisition		0.03 (0.02)		– 0.18 (– 0.15)		– 0.23 (– 0.20)
Equity buyback		0.99 (1.22)		0.95 (1.10)		0.77 (0.92)
Shareholder meeting		0.30 (0.39)		0.41 (0.50)		0.38 (0.46)
Reverse split		– 0.05 (– 0.05)		0.09 (0.11)		– 0.07 (– 0.08)
Quarter fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Obs.	363	363	363	363	363	363
Adjusted R-squared (%)	– 0.43	5.74	0.05	5.92	– 0.23	5.87

Table 8 -- *continued*

Panel C: Dependent variable is the quarterly change in retail ownership (%)						
	(1)	(2)	(3)	(4)	(5)	(6)
Investor awareness	0.25 (0.15)	0.59 (0.36)				
TV campaign			3.39* (1.88)	3.20* (1.72)	3.97** (2.01)	3.81* (1.87)
Podcast					− 2.00 (− 0.86)	− 2.00 (− 0.80)
Virtual conference					− 1.86 (− 0.93)	− 1.87 (− 0.96)
Market cap (log)		− 0.02 (− 0.04)		− 0.06 (− 0.13)		− 0.10 (− 0.23)
ROA		0.43 (1.10)		0.44 (1.05)		0.44 (0.98)
IPO/uplisting		− 6.34 (− 0.54)		− 6.39 (− 0.55)		− 6.20 (− 0.55)
SEO		5.10*** (4.13)		4.94*** (4.07)		5.04*** (4.19)
Delisting		5.48 (0.55)		5.78 (0.59)		5.71 (0.57)
Spinoff		− 0.36 (− 0.26)		0.48 (0.30)		1.08 (0.62)
Acquisition		0.38 (0.19)		0.63 (0.32)		0.61 (0.32)
Equity buyback		− 0.56 (− 0.44)		− 0.27 (− 0.20)		− 0.42 (− 0.33)
Shareholder meeting		0.60 (0.40)		0.38 (0.26)		0.26 (0.17)
Reverse split		1.33 (0.42)		1.14 (0.37)		0.73 (0.24)
Quarter fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Obs.	363	363	363	363	363	363
Adjusted R-squared (%)	− 0.54	0.67	0.38	1.47	0.34	1.42

Appendix A

Table A.1
Description of variables

Variable	Description [source in brackets]
Abnormal institutional attention	A daily measure of abnormal readership activity on the Bloomberg Terminal. 4: readership activity in the top 96 percentile of readership for that company 3: readership activity in the top 94 percentile of readership for that company 2: readership activity in the top 90 percentile of readership for that company 1: readership activity in the top 80 percentile of readership for that company 0: unranked due to low readership activity [item NEWS_HEAT_READ_DMAX; Bloomberg Terminal]
Acquisition	Equals 1 if an acquisition was announced during the relevant period (calendar days $t-3$ through t , inclusive, for firm-day analysis; quarter t for firm-quarter analysis); 0 otherwise. [Bloomberg]
Bloomberg TV	Equals 1 if a “ <i>Small Stocks, Big Money</i> ” episode featuring the firm aired on Bloomberg TV on the preceding Saturday; equals 0 otherwise. “ <i>Small Stocks, Big Money</i> ” airs on Bloomberg TV Saturdays at 7:00pm (ET). [Bloomberg TV]
Daily excess return	Daily return of the stock in excess of the return of S&P 500. [Bloomberg Terminal]
Daily share turnover	Daily shares traded divided by number of shares outstanding. [Bloomberg Terminal]
Delisting	Equals 1 if a delisting pertaining to the company’s securities was announced during the relevant period (calendar days $t-3$ through t , inclusive, for firm-day analysis; quarter t for firm-quarter analysis); 0 otherwise. [Bloomberg Terminal]
Earnings announcement	Equals 1 if the company announced earnings during the relevant period (calendar days $t-3$ through t , inclusive, for firm-day analysis; quarter t for firm-quarter analysis); 0 otherwise. [Bloomberg Terminal]
Equity buyback	Equals 1 if an equity buyback was announced during the relevant period (calendar days $t-3$ through t , inclusive, for firm-day analysis; quarter t for firm-quarter analysis); 0 otherwise. [Bloomberg Terminal]
Fee per TV campaign	Dollar fee for each TV campaign. [https://www.redchip.com/legal/disclosures]
Insider ownership	Shares held by insiders relative to shares outstanding at the end of a given quarter. [Bloomberg Terminal]
Institutional ownership	Shares held by institutional investors relative to shares outstanding at the end of a given quarter. [Bloomberg Terminal]
Investor awareness	Equals 1 if the firm has an ongoing investor awareness program on the given day; equals 0 otherwise. [https://www.redchip.com/legal/disclosures]
IPO/uplisting	Equals 1 if the firm had its IPO or was uplisted (usually from OTC to Nasdaq) during the relevant period (calendar days $t-3$ through t , inclusive, for firm-day analysis; quarter t for firm-quarter analysis); 0 otherwise. [Bloomberg Terminal]
Market cap	Share price times number of shares outstanding. [Bloomberg Terminal]
Monthly cash fee	Monthly dollar fee for investor awareness program. [https://www.redchip.com/legal/disclosures]
Number of analysts providing earnings estimates	Number of earnings-per-share (EPS) estimates for the quarter. [item BEST_EPS_NUMEST; Bloomberg Terminal]

Table A.1 -- *continued*

Variable	Description [source in brackets]
Number of analysts providing recommendations	Total number of analysts providing recommendations on a given day. [item TOT_ANALYST_REC; Bloomberg Terminal]
Performance-based fee	Equals 1 if part of the fees paid to Red Chip includes shares, options, warrants, or cash fee conditional on stock price performance; equals 0 otherwise. [https://www.redchip.com/legal/disclosures]
Podcast	Equals 1 if a “Small Stocks, Big Money” podcast was released that day; equals 0 otherwise. Podcasts are usually released prior to 9:00am (ET). [https://www.redchip.com/podcasts]
Retail ownership	1 – insider ownership – institutional ownership. [Bloomberg Terminal]
Reverse split	Equals 1 if a reverse split was announced during the relevant period (calendar days $t-3$ through t , inclusive, for firm-day analysis; quarter t for firm-quarter analysis); 0 otherwise. [Bloomberg Terminal]
ROA	Earnings for common equity divided by total assets from prior calendar year. [item “EARN_FOR_COMMON” divided by item “BS_TOT_ASSET”; Bloomberg Terminal]
Search volume index	Google search interest in the stock’s ticker relative to the highest interest measured at the weekly level over the period from May 1, 2023, to December 31, 2024. The original value ranges from 100 to 0, where 100 indicates the peak popularity of that stock over the entire period. We standardize the variable at the firm level. [Google Trends]
SEO	Equals 1 if a seasoned equity offering was announced during the relevant period (calendar days $t-3$ through t , inclusive, for firm-day analysis; quarter t for firm-quarter analysis); 0 otherwise. [Bloomberg Terminal]
Shareholder meeting	Equals 1 if an annual or extraordinary shareholder meeting was held during the relevant period (calendar days $t-3$ through t , inclusive, for firm-day analysis; quarter t for firm-quarter analysis; equals 0 otherwise. [Bloomberg Terminal]
Spinoff	Equals 1 if a spinoff was announced during the relevant period (calendar days $t-3$ through t , inclusive, for firm-day analysis; quarter t for firm-quarter analysis); 0 otherwise. [Bloomberg Terminal]
TV campaign	Equals 1 if a TV campaign is ongoing during the day; equals 0 otherwise. [https://www.redchip.com/legal/disclosures]
Virtual conference	Equals 1 if a “Small Stocks, Big Money” virtual conference featuring the firm was held on the previous day; equals 0 otherwise. “Small Stocks, Big Money” virtual conferences are usually held after 4:00pm (ET). [https://www.redchip.com/events]

Table A.2**Sample of stocks with TV campaigns**

The table lists the sample of 57 stocks with TV campaigns.

Ticker	Name	Ticker	Name
AENT	Alliance Entertainment Holding	MOB	Mobilicom Limited
APCX	AppTech Payments Corp.	NTRB	Nutriband Inc.
APVO	Aptevo Therapeutics Inc.	NVA	Nova Minerals Limited
AREC	American Resources Corporation	NXL	Nexalin Technology, Inc.
ASPI	ASP Isotopes	OGEN	Oragenics, Inc.
BFRG	Bullfrog AI	OKYO	OKYO PHARMA LIMITED
BIAF	bioAffinity Technologies, Inc.	OMQS	OMNIQ Corp.
BIVI	BioVie	OSTX	OS Therapies
BTCS	BTCS INC.	PEV	Phoenix Motor Inc.
BTCY	Biotricity	PRPH	ProPhase Labs, Inc.
CANF	Can-Fite Biopharma Ltd	RCAT	Red Cat Holdings
CELZ	Creative Medical Technology Holdings Inc.	RNAZ	TransCode Therapeutics, Inc.
CLDI	Calidi Biotherapeutics	RVPH	Reviva Pharmaceuticals Holdings Inc
CVM	Cel-Sci Corporation	RVSN	Rail Vision Ltd.
ENLV	Enlivex Therapeutics Ltd.	SMXT	SolarMax Technology, Inc.
FBLG	FibroBiologics Inc.	SNAX	Stryve Foods Inc.
GNS	Genius Group Limited	SNGX	Soligenix Inc.
GP	GreenPower Motor Company	SPEC	Spectaire Holdings Inc.
GRRR	Gorilla Technology Group Inc.	STSS	Sharps Technology
IINN	Inspira Technologies Oxy B.H.N. Ltd.	SXTP	Sixty Degrees Pharma
INVZ	Innoviz Technologies Ltd.	TLSA	Tiziana Life Sciences Ltd
KDLY	KindlyMD	TRIB	Trinity Biotech plc
KTTA	Pasithea Therapeutics Corp.	UNCY	Unicycive Therapeutics Inc.
LASE	Laser Photonics Corporation	VMAR	Vision Marine Technologies Inc.
LOBO	LOBO EV	VNRX	VolitionRX Limited
LTRN	Lantern Pharma Inc.	VSEE	VSee Health Inc.
LVO	LIVEONE INC	XELB	Xcel Brands, Inc.
MLSS	Milestone Scientific Inc.	ZOM	Zomedica Corp.
MMA	Mixed Martial Arts Group Limited		

Appendix B: TV campaigns

This appendix presents snapshots of external investor relations TV campaigns. Image (A) presents a typical infomercial aired on CNBC. Image (B) presents a segment aired on Bloomberg TV *Small Stock Big Money* show.

(A) CNBC commercial



(B) Bloomberg TV Small Stock Big Money segment

