Out of the Limelight but In Play:
Trading and Liquidity of Media and Off-media Stocks[*]

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Abstract

Using a novel, hand-collected dataset of a popular financial TV show and intra-day trading data from China, we compare the trading, liquidity, and returns of on-the-show and off-the-show stocks from the same industry. Employing a difference-in-difference approach, we find that off-the-show stocks experience significantly greater improvements in liquidity with higher trading volume and lower bid-ask spreads after the show. These improvements are mostly attributed to small trades. Both on-the-show and off-the-show stocks experience positive abnormal returns that do not reverse one month after the show, and the return gap between these stocks before the show disappears. There is some evidence that small traders profit more from buying off-the-show stocks than on-the-show stocks after the show. Overall, our evidence suggests that media coverage facilitates price discovery, and retail investors, as a group, behave rationally and are not as naïve as typically thought in their reaction to news from mass media.

Introduction

Small (individual) investors are typically considered uninformed and naïve; they play the role of "noise traders" in many theoretical papers, and they are found to exhibit behavioral biases in empirical works. However, a budding strand of recent literature challenges this long standing view using evidence from developed markets such as the US. For example, Kaniel, Liu, Saar, and Titman (2011, KLST henceforth) provide evidence of informed trading by individual investors around earnings announcements. They show that intense aggregate individual investor buying (selling) predicts large positive (negative) abnormal returns on and after earnings announcement dates. Kelley and Tetlock (2011) find that retail buy or sell imbalance positively predicts cross-section of stock returns at monthly horizons, and furthermore, aggressive retail order imbalance from market orders (as opposed to limit orders) correctly predicts the linguistic tone of firm-specific Dow Jones newswire stories.

In this paper, we contribute to the debate on the degree of "sophistication" of retail investors by presenting evidence from a completely different setting—China's domestic A-share market. Despite fast growth since its inception in 1992, China's stock market is still dominated by retail investors, who represent for 80% of all trading accounts in the Shanghai Stock Exchange (SHSE).[1] The market is notorious for an uneven playing field between the large and small investors, and the insiders and the outsiders. A priori, these characteristics lead us to expect that the Chinese small investors may be the classic examples of unsophisticated investors.

We use intraday trading data from the Thomson Reuters Tick History database (which is a trade-by-trade database similar to the TAQ data) to examine investors' trading before and after the coverage of industry sectors by a popular financial TV show called "Sector Reports." The show is

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televised during prime time (6:45-7:15pm) every evening Monday through Friday, and we manually collect data on the industries and stocks covered in the shows aired between August 2007 and July 2008. Each show's content—that is, the sector and stocks to be covered—is set two or three weeks ahead of time with the taping and production of the show completed a few days before the show date. The show's host is a well-known and popular financial commentator among the Chinese audience, and he invites guests onto his show to discuss the sector and specific stocks. The guests are typically financial analysts, and the hosts and guests rarely criticize specific companies or recommend selling the companies' stocks. A show typically features a particular industry sector, for example, "energy" or "soft drinks," but not all firms in industry/sector are featured on the show. We use a difference in difference approach and study the trading, liquidity, and returns of the on-the-show and off-the-show stocks. The industry focus helps us control for industry-wide factors that may be influencing all stocks in the sector, and the on-the-show and off-the-show distinction provides a way to proxy for the amount of direct attention, or media lime light, on the stocks.

Our setting arguably maximizes the likelihood of finding evidence that confirms the "prior" belief that small investors exhibit behavior biases. Like other emerging economies, China's development of financial markets lags its economic growth: the markets offer a very limited set of financial products and do not allow for short selling. With limited investment choices, households and individual investors pour money in the stock market.[2] In an inefficient market populated by many novice, individual investors without sufficient resources and expertise, there has been abundant evidence from anecdotes on the naivety of and suboptimal decisions made by a typical Chinese individual investor. Coverage by a popular TV show represents an "attention grabbing" event and individuals are likely to be most susceptible to be influenced by such events. Using US data, Barber and Odean (2008) and Engelberg et al. (2011) provide evidence that individuals trade

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[2] In Appendix A, we provide a more detailed overview of China's financial markets and stock exchanges.

attention-grabbing stocks such as those covered by media. A natural prediction would be that retail investors in China concentrate their trading on the on-the-show stocks and perhaps lose money in the process.

We find surprising evidence that small investors, at least during our sample period of 2007-2008, may be more sophisticated than previously thought, even in a stock market like China's. We have two main findings. First, using a difference-in-difference approach, we find that post show, while both on-the-show and off-the-show stocks experience significantly higher trading volume, it is the off-the-show stocks that experience greater improvement in liquidity. In the month after the show, average daily trades increase by 185, 3% of the normal daily average of over 5,116 trades. In the 7-day window after the show, the average trading size goes up by 44,000 RMB, more than 100% of the normal average trading size of about 30,000 RMB. Buy-sell order imbalance also increases significantly, indicating increases in the buying activities. Effective bid-ask spreads decrease significantly by 0.8 basis points, or about 4% of the typical 20 basis points. These results contrast sharply with on-the-show stocks, which do not experience significant changes in all of these statistics.

More interestingly, when we separate trades into small and large trades, we find that the above changes are attributable mainly to significant increases in small trades. In contrast, the increased trading in the on-the-show stocks are attributable mainly to large trades. Thus, small investors appear to focus their trading on the off-the-show stocks that belong to the same industry as the on-the-show stocks, leading to the enhanced liquidity of these stocks. There is some evidence that small investors make more profits trading off-the-show stocks than on-the-show stocks post show, further indicating that this trading strategy is rational.

Second, we find evidence that TV coverage—an attention-grabbing event—closes the return gap that existed between the on-the-show and off-the-show stocks before show date. During the pre-

show 1-month window, on-the-show stocks showed higher returns than off-the-show stocks. This may indicate that the show host selected recent winning stocks to cover. Post show, both set of stocks experience positive abnormal returns, and the four-factor alphas of both sets of stocks do not reverse one month after the show, *and* their returns show higher correlations. In other words, while the on-the-show stocks were the (relative) industry winners pre-show, post-show the two set of stocks move more in tandem.

Collectively, our evidence suggests that attention-grabbing events such as media coverage do prompt investors to react more to fundamental information (for example, industry-level fundamentals). This is consistent with prior evidence (e.g. Klibanoff, Lamont, and Wizman, 1998) and indicates that media coverage plays a catalyst role in incorporating information into prices. To the extent that it takes a prime time, popular TV show to prompt the prices of the on-the-show and off-the-show stocks to co-move more and reflect common fundamentals, our evidence does support the notion of limited investor attention. But at the same time, the surprising fact that small traders focus on off-the-show stocks rather than on-the-show stocks suggest that they are more sophisticated in their response to media than typically thought. The fact that our evidence comes from China, a market where individual investors are expected to be particularly unsophisticated, adding significance to the debate about individual investors' degree of sophistication.[3]

Our paper also extends a growing strand of literature examining investor behavior and market efficiency in emerging markets including China. Prior work has documented a number of biases by retail investors in such markets. The Chinese market seems to be fraught with speculation-fueled inefficiencies (Xiong and Yu, 2011). Individual investors in this market make sub-optimal decisions (e.g., Mei, Scheinkman, and Xiong, 2005; Chan, Wang and Yang, 2011), and large losses

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[3] One reason that retail investors are not heavily influenced by the TV shows is that they have doubts about media coverage of stocks in general, given numerous scandals involving individuals and companies' attempt to control certain media outlets in their favor. In this regard, the implication is consistent with the cross-country study of Guiso, Sapienza and Zingales (2008), who find the lack of trust of stock markets explains investors' limited participation in the markets.

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(Barber et al., 2009, 2011). To our knowledge our paper is the first to provide evidence on the sophistication of individual investors in emerging markets that challenges the conventional wisdom.

The rest of the paper is organized as follows. Section I provides a brief introduction to the institutional background on China's financial market and a literature review. Section II describes our data. Section III presents our findings. Section IV discusses our results and concludes.

I. Related Literature

A growing body of literature shows that the media has significant impacts on trading. In one of the earlier papers, Klibanoff, Lamont, and Wizman (1998) find that prices of close-end funds are more related to fundamental asset value in weeks of major news releases featured on the front pages of New York Times than weeks without such coverage. This suggests that news coverage by the media lead investors (who otherwise may update their expectations sluggishly) to react more quickly. One difficulty in studying the media's impact on markets is the direction of causality. Does the media coverage cause investors to trade? Or does media coverage merely reflect fundamental information? Engelberg and Parsons (2011) compare trading of investors with access to different media coverage of the same information event, and this identification strategy allows the authors to conclude that media reporting per se has a *causal* impact on investor trades.[4]

Several papers document that individuals are particularly susceptible to the influence of media coverage. Barber and Odean (2008) find that individual investors concentrate their trades on attention grabbing stocks, such as those that are covered in the media, and those with high recent returns. Tetlock (2011) provides evidence that stale news stories (stories that are textually similar to previous stories about the same firm) elicit individual investor reaction; stock returns on stale

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[4] A separate strand of papers focuses on the relation between media coverage and security pricing. Tetlock (2007) and Macskassy, Saar-Tsechansky, and Tetlock (2008) are the first papers to show that the linguistic content of media coverage predicts the short-term price change. Fang and Peress (2009) document that stocks not covered by the media earn significantly higher average returns than stocks covered by the media, after accounting for risks.

news days negatively predicts future returns in the next week. Engelberg, Sasseville, and Williams (2011) show that stock recommendations on Mad Money—a popular TV show in the US—lead to large overnight returns and subsequent reversal and these spike-reversal patterns are strongest among small stocks that are difficult to arbitrage. Using viewership data as direct proxy for investor attention, they also find these patterns to be strongest when high-income viewership is high. Da, Engelberg, and Gao (2011) show that search frequency in Google captures individual investor attention and is related to short-term higher stock prices (about 2 weeks) and subsequent reversal.

The collective evidence that retail investors are susceptible to the influence of media coverage can be attributed to limited attention (Barber and Odean (2008)). Investing requires attention which is a scarce cognitive resource (Kahneman (1973)). Faced with the difficult search problem among thousands of stocks to buy, retail investors are likely to gravitate towards attention-grabbing stocks. For this reason, institutional investors who are armed with dedicated research departments should be less susceptible to such behaviors. However, Fang, Peress, and Zheng (2011) provide evidence that mutual fund manager trades are also influenced by media coverage, and a manager's propensity to buy media-coverage stocks is negatively related to the fund's future performance.

Our contribution to this literature is to provide evidence of investor trading in response to media coverage in a different market setting. The sheer size and the high individual participation of the Chinese A share market warrants a separate examination of the evidence. More importantly, our setting allows us to compare and contrast investors' trading of the on-the-show and off-the-show stocks that belong to the same industry being featured on TV. This feature of the data is unique among the above mentioned papers, which all focus on the individual stocks actually featured in the media. The contrast between the on-the-show and off-the-show stocks proves to be interesting, and provides evidence that individual investors are not as naïve as typically thought. More broadly, our

evidence that even in a market such as China small traders show signs of being more sophisticated than often thought provides important evidence to the budding literature on the wisdom of the crowd—the notion that individual investors trades are collectively informative (KLST 2011, Kelly and Tetlock (2011)).

II. Data and Descriptive Statistics

China has two domestic A-share stock exchanges, the Shanghai Stock Exchange (SHSE) and Shenzhen Stock Exchange (SZSE), and they were established in 1990. SHSE is the larger of the two. At the end of 2010, the SHSE has total market capitalization of US$2.7 trillion, ranked the sixth largest in the world, while the SZSE is ranked the fourteenth with a market cap of US$ 1.3 trillion.[5] In this paper we focus on both exchanges for the one-year period from Aug 2007 to Aug 2008. This market is underdeveloped. During this period, no short-selling was allowed, and there was also no futures market. Thus investors have limited investment and hedging opportunities. The market is also dominated by retail investors. In the SHSE which requires all investors to open an account, 80% of all accounts belong to individuals. Institutional investors are primarily domestic mutual funds, the first set of which began to emerge only in the late 1990s. By November 2009, there were 65 fund companies with the total net assets value of RMB 2.3 trillion (US$328 billion), which is only roughly 15% of the market cap of the stock exchanges.

This study focuses *Sector Reports*, a popular nightly financial TV show in China since 2003. The airing time for the show is from 6:45pm to 7:15pm,[6] and the stated goal of the show is to provide information on investment opportunities through the research and analysis on selected sectors and stocks. *Sector Reports* concentrate on the sector analysis. For each show, the show host

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[5] Data is from http//:www.world-exchanges.org, the web site of the international organization of stock exchanges.
[6] From January 2008, the air time changed to 7:55pm to 8:50pm as a part of a longer show, but the content and host remained the same.

invites a guest (typically a financial analyst) to comment on the pre-determined industries. The analyst is sometimes asked to give specific investment advice on individual stocks within the sector. But negative recommendations are rare on the show, occurring in 5% of all recommendations. When individual stocks are mentioned by the host or the guest, the stocks name and ticker appears on the screen, along with stock price charts, and sometimes informational inserts such as footages of the factory floor. At the end of the show, the hottest stocks in terms of trading volume and stock recommendations from security companies are listed on the screen.

For the purpose of this study, we watched the daily shows aired between August 1, 2007 and July 31, 2008, a period with considerable stock market volatility in China (see Chart A1 in Appendix A). We coded the following information from the show: date, sector covered, information on the guest speaker, and information of the specific stocks mentioned on the TV screen.

We obtain the intra-day transaction data from the Thomson Reuters Tick History database,[7] which is managed by the Securities Industry Research Center of Asia-Pacific (SIRCA).[8] This database is similar to the New York Stock Exchange's Trades and Automated Quotations (TAQ) database. We apply the following data screening criteria. We exclude a trade or quote if: (1) the trading volume and/or quoted depth is negative; (2) it has negative bid-ask spreads; or (3) its effective bid-ask spread exceeds 30%. The daily data on return and market capitalization are from CSMAR, a database of market price and return information similar to the CRSP data for the US market. All the datasets are matched using a stock's ticker symbol.

In order to calculate abnormal returns, we replicate the method in Fama and French (1993) for the Chinese A-share market to construct the size (SMB) and value (HML) factors. Specifically, at the end of December in each year y, we divided all the A-share stocks into two size portfolios

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[7] The database was formerly known as the TAQTIC database.
[8] SIRCA is a non-profit financial services research organization involving twenty-six collaborating universities across Australia and New Zealand.

using the median market capitalization of stocks on the Shanghai Stock Exchange and the Shenzhen Stock Exchange. We likewise construct three portfolios based on the book-to-market ratio of equity (book-equity divided by market equity, or BE/ME), using end of June data to calculate the book value of equity. The BE/ME breakpoints are the 30th and 70th of percentiles of all stocks with positive book equity. The size factor (SMB) is the difference between the average of the three value-weighted sub-portfolio returns (value, neutral, and growth) in the small portfolio and that in the large portfolio. The value factor (HML) is the difference between the average of the two value-weighted sub-portfolio returns (small and big) in the value portfolio and that in the growth portfolio. The market factor is the difference between the value-weighted average of stock returns in the A-share market and the interest rate on the 3-month government bond. We calculate daily returns for each factor.

We also replicate the method in Carhart (1997) to construct the daily momentum (UMD) factor. In particular, on day t, all the stocks are sorted based on the 11-month return over the period (t-360, t-30). The momentum factor is the difference between the value-weighted average of stock returns in the winner portfolio (the highest 30 percentiles) and that in the loser portfolio (the lowest 30 percentiles). When calculating betas, our estimation windows are from 12 months before the event (show) date to 30 days before the event date, that is, we use the past 12 months of data, but skipping the immediate preceding month.

Table 1 tabulates the ten major industries and their media statistics. The industry classification is based on the CICS first level code from China Securities Index Co. Ltd. In our dataset, each industry was featured 56 times (on average), and 32% of the stocks in the industry were explicitly mentioned on the show. The three largest industries by market cap are Materials, Industrials, and Consumer Discretionary. They were also featured more frequently in the show.

Table 2 compares key statistics between the on-the-show stocks and the off-the-show stocks. For the time period in our sample, there are 1,576 stocks listed on the A share market, 303 of which were mentioned at some point on *Sector Reports*. On-the-show stocks are different from off-the-show stocks in a number of ways. They have significantly larger market cap, more daily trading (both trading volume and number of trades), smaller bid-ask spreads, and lower order imbalances. Trading of on-the-show stocks are also more dominated by large trades: of the average 8,311 daily trades of on-the-show stocks, 1,611 (20%) are small trades, which we define as below 300,000 RMB (about $40,000 USD). Of the average 4,333 daily trades of off-the-show stocks, 1,062 (25%) are such small trades. On-the-show stocks have lower average P/E ratios than off-the-show stocks, but the two sets have similar B/M ratio and volatility. Finally, on-the-show stocks also have higher average returns and higher returns in the past three month. Overall, these patterns suggest that on-the-show stocks are larger, more visible, more liquid, more likely to be the focus of larger institutional investors, and are more likely to be recent winners in the industry.

These differences are not surprising. Fang and Peress (2009) also document that stocks with media coverage is significantly larger than stocks without media coverage in the US. Indeed, firm size, which is correlated with liquidity and institutional ownership, is a significant determinant of coverage. But the differences between the two set of stocks indicate that direct comparison between on-the-show and off-the-show stocks is likely to be misleading. We use difference-in-difference approach in our empirical analysis.

The fact that the on-the-show stocks have higher pre-show returns warrants further comment. According to our interviews with production executives, the TV show's production cycle is two to three weeks long. That is, the producers of the show decide which sector to cover two to three weeks ahead of airing date. Thus, for the post-show intra-day trading which is the focus of our analysis, this coverage decision can be considered exogenous: it cannot be the case that intense

intra-day trading of certain stocks prompted the coverage on TV of the stock's sector. This makes our framework a good setting to see how trading *reacts* to the TV coverage. But over a longer horizon, it is quite plausible that the show host and producer pick a recently "hot" sector to cover, and choose larger, recent winner stocks within the sector to focus on in the show. In other words, at a lower frequency, the TV coverage is endogenous and reacts to slow-move sector and stock specific trends.

To investigate this possibility, we estimate Probit regressions for the coverage decision both at the sector level and the stock level. For the sector level regression, the dependent variable equals one if the particular sector is covered on the show, and 0 otherwise. For the stock level regression the dependent variable is similarly defined, but we only include stocks in the same sector in the regression analysis. The explanatory variables include returns, turnover, order imbalance and size. Table 3 contains the Fama-MacBeth estimation results of the Probit regressions; we report the marginal probabilities. Consistent with the show being exogenous to market movements, we find no evidence that coverage reacts to past sector returns. Sector size has a marginally positive effect on the probability of being covered. Turnover and order imbalance also do not predict coverage at the sector level. Within a sector, the stock-level analysis indicates that winners in past 1 and 12 months are more likely to be covered in the show.

III. Empirical Findings

A. *Changes in Trading Patterns around the Shows*

Table 4 examines trading patterns of on-the-show and off-the-show stocks before and after show dates. The statistics we examine include number of daily trades, average trade size (in RMB or as percentage of market cap), effective bid-ask spread, and relative order imbalance. For both

groups of stocks, we examine four windows: 1 day post versus 1 day before, 3 days post versus 3 days before, 7 days post versus 7 days before, and 30 days post versus 30 days before.

The table shows muted change in trading statistics for on-the-show stocks: statistics pertaining to on-the-show stocks (the second column in the table) are generally insignificant. There is some evidence that in the 3 days post-show daily number of trades increases: the increase is 779 trades, significant at 5%, but the conclusion does not hold for other windows. There is no significant change in the RMB amount of the average trade size. In the 30 day post-show, average trade size as percentage of market cap shows a significant decrease; this could be that some smaller investors are trading on-the-show stocks in the month after show (we will discuss trading behavior by investor type in more detail below). There is some evidence that order imbalance increases marginally by 0.8% (0.008) for the 7-days post show (significant at 10%). Interestingly, bid-ask spread actually widens by 1% in the 30-days post show compared to the 30-days pre-show and it is statistically significant. We conclude that on-the-show stock does *not* experience significant changes in trading and liquidity. In fact, liquidity seems to worsen in the month after the show.

These patterns contrast sharply with results for off-the-show stocks: the majority of the statistics for off-the-show stocks (the third column) are significant, often at the 1% level. First, daily number of trades increases by 185 in the 30-days post-show compared to 30-days pre-show, a result significant at the 1% level. This is 2% of the total normal number of daily trades (about 8,311, as reported in Table 2). Second, in the 7 days post-show compared to before, average trading size also increases significantly nearly 45,000 RMB, more than 100% the average trading size (about 30,000 RMB). Third, buy-sell order imbalance also goes up significantly, indicating increases in buying activity. Finally, effective bid-ask spread for off-the-show stocks decreases by 0.008, significantly at the 1% level for one week after the show.

Overall, off-the-show stocks clearly experience significant increases in trading and improvements in liquidity, at least for one-week after the show. There is some evidence of reversal for some of these variables between one week and one month post-show: for example average trading size seems to become smaller later in the month, and relative order imbalance becomes negative by the end of the month, compare to the month before. Overall, these patterns are consistent with retail investors focusing on off-the-show stocks post-show; their activities increase the liquidity, reduce the spread and increases buy-sell imbalance for one week after the show.

The A-share market experienced significant run-up from August to December in 2007, followed by a collapse from January to July in 2008 (again, refer to Figure A1). To see whether the results hold in different market conditions, we repeat the analyses of Table 4 for these two subsample periods. Table 5 reports the results. We hypothesize that media's effect on trading should be stronger in down markets, if media coverage creates attention and increases trading. This is because in bull markets, trading activity is already high as investors are drawn to the buoyant market activities (this may be especially the case in China, where short-selling is not allowed); media's incremental effect thus could be stronger in down-markets when overall trading is low. The results in Table 5 confirms this hypothesis, showing that while qualitatively the main results in Table 4 hold in both periods, the overall effect is strongly driven by the bear market of 2008; the effects in the bull market of 2007 are somewhat muted.

But this still leaves the question of why media's effect was stronger for off-the-show stocks. In particular, which type of investors is driving this result? In Table 6, we break down the statistics into small and large trades; the goal is to see if small trader or larger trades are mainly responsible for the patterns documented above. We classify trades less than 300,000 RMB in value as small trades, and those exceeding 2,000,000 RMB in value as large trades. We leave the trades with values in between these two figures as indeterminate, so that we can be reasonably confident that

the small and large trades correspond to individual and institutional trades, respectively. Results pertaining to the on-the-show stocks are on the left-hand side panel of the table, and results for the off-the-show stocks are on the right-hand side. For each type of stocks, we compare trading activity variables 1 and 3 days after the show relative to the same window before the show, and we separately tabulate the statistics for small trades and large trades. The numbers showed in each cell are already differences (post-show minus pre-show). For example, the -34.085 figure in the upper left corner of the table for buys means that for on-the-show stocks, the number of small trades (those with value less than 300,000 RMB) in the 1-day post show relative to 1-day pre-show reduced by 34.085 trades.

It is apparent from the table that nearly all the actions happen in off-the-show stocks and there is little change for on-the-show stocks: the left-hand side panel for on-the-show stocks virtually shows no statistical significance in any variables we look at, whereas the right-hand side panel for off-the-show stocks shows significant change in almost every variable. Interestingly, we also see that for off-the-show stocks, the changes are different and often opposite among small trades versus large trades. For example, the number of small trades for off-the-show stocks increases by about 44 in the 3 days after the show compared to the 3 days before, representing about 3% of the usual numbers of small trades (1,611, as indicated by Table 2). As a percentage of total trades, small trades also go up by 1.7% in the 3 days post-show compare to the 3 days before. Both these numbers are significant at the 1% level. Average trade sizes among small trade decreases by 6,580, roughly 20% of the usual trade size, suggesting that more small investors are actively buying these off-the-show stocks. Total volume of small trades also significantly increases post-show relative to pre-show.

We see the opposite patterns among large trades: off-the-show stocks experience 19 fewer large trades daily, or 1.758% of all trades. Total volume of large trades goes down by 316,000 RMB

each day in the 3 days after the show than the 3 days before and the number is significant at 1%. Panel B for sells show virtually identical patterns. We also do a subsample analysis on the trading patterns of different investor groups. The unreported results show that off-the-show stocks have more small trades in 2008.

B. *Liquidity Provision?*

Putting the results in Tables 4 and 6 together, a clear conclusion emerges: Off-show stocks experience significant changes in trading, liquidity, and volume post-show relative to pre-show, much more so than on-the-show stocks. Among off-the-show stocks, it is small trades—which can be mostly attributed to individuals—that are driving the increases in trading and volume. These patterns are somewhat at odds with a naïve limited attention hypothesis which would predict that small investors gravitate towards on-the-show stocks.

Instead, these patterns can be consistent with a liquidity provision story by small traders. It may be that post-show, large traders need to trade on-the-show stocks for information-related reasons and demand immediacy. Consistent with this, we note that for on-the-show stocks, the only significant change post-show is that total large-trade share volume goes up significantly; this is true for both buys and sells. For buys, total share volume of large trades in the three days post-show increases by 113.67 relative to the same window pre-show (significant at 1%), and for sells, the same increase is 89.319 (significant at 5%).

We run a panel regression with firm and time fixed effects to further investigate the liquidity provision by small traders:

$$Spread_{i,t} = a + b_1 \times D_{OffShow,i,t} + b_2 \times D_{PostShow,i,t} + b_3 \times D_{OffShow,i,t} \times D_{PostShow,i,t}$$

$$+ b_4 \times \%ST_{i,t} \times D_{OffShow,i,t} \times D_{PostShow,i,t} + b_5 \times \%LT_{i,t} \times D_{OffShow,i,t} \times D_{PostShow,i,t}$$

$$+ b_6 \times \%ST_{i,t} + b_7 \times \%LT_{i,t} + b_8 \times Size_i + \varepsilon_{i,t} \tag{1}$$

where $Spread_{i,t}$ is the effective spread in percentage, multiplied by 100, for stock i on day t; $D_{OffShow,i,t}$ is a dummy variable whose value is 1 if stock i is classified as an off-the-show stock on day t, and 0 otherwise; $D_{PostShow,i,t}$ takes a value of 1 if day t is post-show for stock i, and 0 otherwise; $\%ST_{i,t}$ and $\%LT_{i,t}$ are percentage of small and large trades for stock i on day t; $Size_i$ is the firm size in trillions of RMB at the end of July, 2007; and $\varepsilon_{i,t}$ is the error term. Setting the show date to be day 0, we only include the days within the window of [-30, 30] for each stock in the regression analysis. The sector dummy variables are also included in regression (1).

The results using effective spreads as the proxy for liquidity are reported in Panel A, Table 7. Consistent with the findings in Table 4, the estimated coefficient on the interaction of the two dummy variables is negative and significant, when firm size and sector dummies are the only control variables, indicating that off-media stocks have narrower spread after the show. When the percentage of trades from small investors is included in the regressions, the estimated coefficient on the triple interaction term is negative and highly significant, providing evidence of the liquidity provision from small traders. On the other hand, when the percentage of trades from large investors is included, the estimated coefficient on the triple interaction term is significantly positive, suggesting that large trade on the off-the-show stocks increases the spread post-show, although large trades themselves improve liquidity. Finally, when all the variables are included, the results that off-media stocks have higher liquidity post-show and small traders provide liquidity for these stocks still hold. Consistent with the findings in Table 5, the main findings in the whole sample period mainly come from the down market in 2008.

The spread measure represents the cost to execute small-size trading orders. When a large order enters the market, however, investors need to consider the variable component of the trading cost, that is, the price impact caused by the large order itself. In the classical model of Kyle (1985), the price impact stems from the information asymmetry between the informed traders and the

uninformed market makers. We follow the method of Hasbrouck (2009) to empirically estimate the price impact cost, and details of the derivation of the measure are presented in Appendix B. Panel B, Table 7 reports the results using price impact as the measure for liquidity. We continue to obtain similar results in that the improved liquidity in the off-the-show stocks is mainly driven by the trading of small investors.

If indeed small traders are supplying liquidity, they should benefit from it. We test this conjecture by estimating trading profits of small and large trades for on-the-show and off-the-show stocks before and after show dates. Again we look at both the 3-day and 1-day window around the show. We need to make some assumptions in order to calculate trading profits. We assume a trading strategy over window [*n, m*] that buys on-the-show or off-the-show stocks on day *n-1* at the average buying price and sells these stocks on day *m* at the average selling price. So the trading profit for buys over [*n, m*] is $(P_m^{Sell} - P_{n-1}^{Buy})/P_{n-1}^{Buy}$, where P_m^{Sell} is the average of selling price on day *m* and P_{n-1}^{Buy} is the average of buying price on day *n-1*. Similarly, we assume a selling strategy over window [*n, m*] that short sells on-the-show or off-the-show stocks on day *n-1* at the average selling price and buys these stocks back on day *m* at the average buying price. So the trading profit for sells over [*n, m*] is $-(P_m^{Buy} - P_{n-1}^{Sell})/P_{n-1}^{Sell}$. Here buys and sells are classified based on the Lee and Ready (1991) algorithm.

Table 8 tabulates our results. Results in this table suggests that in buys, small trades make more profit post-show on off-the-show stocks than on-the-show stocks, after accounting for potential bid-ask spread. For example, in the 3-day window post show [+1, +3], buying off-the-show stocks would generate a return of 4.563%; buying on-the-show stocks would generate a return of 1.604%, the difference being significant at 5%. Thus, there is some evidence that small trades benefit from providing liquidity.

Summarizing the results so far, we find that media coverage—a popular TV show featuring pre-determined industry sectors—triggers strong changes in trading and liquidity for off-the-show stocks belonging to the same sector. Changes for stocks explicitly mentioned on the show are quite muted; the only significant change being higher share volume among large trades. In contrast, for off-the-show stocks, liquidity significantly improves as total trading and volume all significantly go up and spread significantly go down. The pivotal force behind these changes is small trades, which we attribute to small (individual) traders. We also find some evidence supporting the notion that these patterns are consistent with small traders supplying liquidity in the post-show context.

C. Cumulative Abnormal Returns

One question that naturally arises is whether the significantly increased trading of off-the-show stocks is a type of "over-reaction". To shed light on this, we examine cumulative abnormal returns of on-the-show and off-the-show stocks for the 60 days around show-date: 1 month before and 1 month after.

Table 9 presents the results. Panels A, B, and C shows results using the CAPM, the Fama-French three-factor, and Carhart four-factor models to calculate normal returns, respectively. First focusing on the CAPM model, we find that both on-the-show and off-the-show stocks experience significant and positive abnormal returns for up to 7 days post-show. In particular, on-the-show stocks' abnormal return is significantly higher than that of off-the-show stocks. But by the end of one month, the cumulative abnormal return of off-the-show stocks have become significantly negative, indicating that there is return reversal from between 1 week and 1 month after the show. This evidence would be consistent with the notion that perhaps small traders "over-reacted", which leads to the pop-up and subsequent reversal of off-the-show stocks returns.

Evidence from more sophisticated benchmark models, however, reveals a different picture. In the Fama-French three-factor model, we find that the positive abnormal return for on-the-show stocks continues to be significant at the end of one month; and importantly, there is no evidence of reversal for off-the-show stocks' return—the CAR (1, 30) is positive but insignificant. This conclusion is even stronger if we look at the Carhart four-factor model which also takes into account momentum. Once momentum is taken into account, Panel C shows that not only there is no reversal, but there continues to be a positive drift in the returns of off-the-show stocks. In contrast, the abnormal returns of on-the-show stocks practically disappear beyond three days; and even within the first three days, the statistical significance of the on-the-show stocks' abnormal returns are weaker. The subsample analysis in 2008 reveals similar results. Figure 1 plots the cumulative abnormal returns and provides visual evidence for the above conclusions.

These findings suggest that the apparent return differential between on-the-show and off-the-show stocks is completely explained by momentum. On-show stocks have strong recent momentum, which is consistent with the finding reported earlier that the TV show coverage was related to recent price run up in the first place. Once accounting for momentum, there is no reversal of the off-the-show stocks' abnormal return. In fact, there continues to be a positive drift at the end of one month. This evidence suggests that the small trades—the driving forces behind the changes in liquidity and trading of off-the-show stocks—are not manifestations of over-reaction.

Table 10 examines changes in CARs in a regression setting. The goal is to see if the closing of the return gap between on-the-show and off-the-show stocks post show can be attributed to small investors trades. That is, whether the TV show coverage prompted small investors trading, which in turn facilitates the price discovery of off-the-show stocks. The dependent variable is the difference between on-the-show and off-the-show stocks in the *change* in the 3-day cumulative abnormal returns post-show compared to pre-show. In other words, it's the difference-in-difference of CAR

changes between the two sets of stocks. The key explanatory variables are the percentage buying

and selling attributable to small investors. If small investor trading facilitated the price discovery

and the closing of the return gaps, we should see that these variables lead to a smaller difference in

the CARs; that is, the coefficient should be negative in the regressions. Results in Table 8 indicate

that this is indeed the case. In particular, a 1% increase in small investor buying leads to a 0.136%

reduction in the CAR change differential between on-the-show and off-the-show stocks, a

magnitude that is statistically significant and economically large.

D. Robustness Checks

A central part of our analyses is to distinguish the behaviors of large (institutional) and small

(retail) investors following the air of the TV shows. In reported tests and results, we classify trades

less than 300,000 RMB in value as small trades, and those exceeding 2,000,000 RMB in value as

large trades. These cutoffs correspond to the bottom and top quartiles of the distribution of trading

size (for the entire sample period). We also use two different sets of cutoffs on small and large

trades to classify investors. We classify trades in the bottom 10th percentile (5th percentile) as small

trades and those in the top 90th percentile (95th percentile) as large trades. The 10th percentile of the

size distribution corresponds to 165,000 RMB, while the 90th percentile corresponds to 6,000,000

RMB. We repeat all the tests (Tables 5-9) using these different sets of cutoffs and obtain

qualitatively similar results. This suggests that our findings are robust to different classification

schemes.

IV. Discussion and Conclusions

Using data from a large but relatively unexplored emerging market—China, in this paper we

examine investor trading in response to media coverage, focusing on differences between stocks

explicitly mentioned by the media and stocks in the same sector but are not mentioned, as well as differences between small and large trades (traders). We contribute to the literature in two ways. Our hand-collected media coverage data, which is a popular TV show discussing industry sectors, not only has the advantage that the content (the industry to be covered) was determined weeks ahead of show date, but also that its industry focus allow us to make interesting contrasts between stocks explicitly mentioned on the show and stocks belonging to the same industry but are not explicitly mentioned. Most media-related papers to date focus on stocks actually covered by the media.

Our second contribution is the somewhat surprising findings we document in the paper. China being an emerging and relatively inefficient market, one natural conjecture is that small investors in this market would be the stereotype of the attention-constrained, behaviorally-biased noise traders in theoretical frameworks. But we find some evidence that small investors may be more sophisticated than this typical characterization. Finding such an evidence using data from China has broader implications and weights on the recent debate about the smartness of small investors represented by the work of KLST 2011, and Kelly and Tetlock (2011).

We find evidence that on days after the TV show, it is the off-the-show stocks that experience significant increases in trading volume and liquidity; changes in on-the-show stocks are muted. We find that changes to the off-the-show stocks trading are primarily attributable to small trades, which we associate with small traders. For on-the-show stocks, the most salient change is the increase of total share volume from large trades. Thus it appears that small traders engage in liquidity provision that cater to the immediacy demand by large traders. We find some evidence that small traders benefit from this liquidity provision. Finally, we find that cumulative abnormal returns of off-the-show stocks do not reverse after one month post-show, after momentum is accounted for. This argues against such trading being "over-reactions" to media coverage.

Overall, the evidence suggests that small traders are not as naïve as perhaps typically thought – a simple limited attention story would predict that small traders will be fixated on the on-the-show, rather than off-the-show stocks. One possible reason that retail investors are not heavily influenced by the TV shows is that they have doubts about media coverage of stocks in general, given numerous scandals involving individuals and companies' attempt to control certain media outlets in their favor. In this regard, the implication is consistent with the cross-country study of Guiso, Sapienza and Zingales (2008), who find the lack of trust of stock markets explains investors' limited participation in the markets. We should also note that we do not suggest that small investors are not subject to limited attention. Quite on the contrary, the very fact that trading and liquidity increases dramatically for the *sector* featured by the TV show is evidence enough that media can focus investors' minds and actions on that sector, providing direct evidence of limited investor attention. Our evidence seems to suggest that investor's – even small investors' – usage and consumption of media are perhaps more sophisticated than we have previously thought.

Appendix A Overview of China's Financial Markets

Two domestic stock exchanges, the Shanghai Stock Exchange (SHSE) and Shenzhen Stock Exchange (SZSE) were established in 1990. They grew quickly and the market reached a peak by the end of 2000. As shown in Figure 1A, the momentum of the market, indicated by the SHSE Index, then reversed during the next five years as it went through a major correction with half of the market capitalization lost. Most of the losses were recovered by the end of 2006, and the market reached new heights during 2007. However, following a string of negative news worldwide and domestically the market lost three quarters of its value by the end of 2008. As mentioned above, we hand collect coverage of on-the-show stocks (and off-on-the-show stocks from the same industry) from the TV show, "Industry and Sector Reports," televised between August 2007 and July 2008, a period of substantial rise and fall of the Chinese market.

Figure A1 compares the performance of some of the major stock exchanges around the world, as measured by the 'buy-and-hold' return in the period December 1992 and December 2010 (gross return at December 2010 with $1 invested in each of the valued-weighted stock indexes at the end of 1992). Over this period, the performance of the value-weighted SHSE index (inflation-adjusted real returns; the calculation for the SZSE is very similar) is below that of SENSEX (India), which has the best performance among the group, and that of S&P (U.S.), but better than FTSE (London) and the Nikkei Index, the worst among the group.

At the end of 2010, the SHSE has total market capitalization of US$2.7 trillion, ranked the sixth largest in the world by market cap, while the SZSE is ranked the fourteenth with a market cap of US$ 1.3 trillion (data from http//:www.world-exchanges.org, the web site of the international organization of stock exchanges). About 56% of total turnover in SHSE in 2010 comes from the turnover of the companies with the largest market cap (top 5%), which is in line with that of other large exchanges, indicating that trading is concentrated among large-cap stocks. On the other hand, the "turnover velocity," or the (annual) total turnover for all the listed stocks expressed as a percentage of the total market capitalization, of SZSE and SHSZ are the highest among the largest exchanges in the world, suggesting that there is a large amount of speculative trading especially among small- and medium-cap stocks.

There is abundant evidence showing that China's stock markets are not efficient in that prices and investors' behavior are not necessarily driven by fundamental values of listed firms. For example, Morck et al. (2000) find that stock prices are more 'synchronous" (stock prices move up and down together) in emerging countries including China than in developed countries. They

attribute this phenomenon to poor minority investor protection and imperfect regulation of markets in emerging markets. In addition, there have been numerous lawsuits against insider trading and manipulation. In many cases, unlike Enron and other well-known companies in developed markets stricken by corporate scandals, managers and other insiders from the Chinese companies did not use any sophisticated accounting and finance maneuvers to hide their losses.

Until the recent share reform, listed firms in China issued both tradable and nontradable shares. The nontradable shares were either held by the government or by other state-owned legal entities (i.e., other listed or non-listed firms or organizations). Among the tradable shares, Classes A and B shares are listed and traded in either the SHSE or SZSE, with Class A (B) shares are issued to and traded by Chinese investors (foreign investors including those from Taiwan and Hong Kong and QFIIs); in 2001, the CSRC allowed Chinese citizens to invest and trade B shares (with foreign currency accounts). As the end of 2009, nontradable shares constituted around half of all shares and the majority of tradable shares were A shares.[9] In addition, Class H shares, issued by selected "Red Chip" Chinese companies, are listed and traded on the Hong Kong Stock Exchange. After the share reforms beginning in 2005, government shares became tradable for most companies. Institutional investors began to emerge in the late 1990s with the establishment of the first set of mutual funds. By November 2009, there were 65 fund companies with the total net assets value US$328 billion, which is small compared to the assets within the banking sector or the market cap of the stock exchanges.[10]

China's government bond market has been growing fast, with total outstanding bonds reaching $721.3 billion at the end of 2008, which is small relative to the stock market. Similar to many Asian countries and other emerging markets around the globe, the corporate bond market is underdeveloped and much smaller than the government bond market. China did not introduce its first index future (for A shares) until April 2010, and a trial program on short selling began for selected institutional investors in the same year. China's financial system has been dominated by its banking sector, with demand (savings) deposits totaling US$ 2.7 trillion ($3.8 trillion) at the end of 2009. However, interest rates on deposits (as well as on loans) of Chinese banks have been

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[9] While the two share classes issued by the same firm are identical in terms of shareholder rights (e.g., voting and dividend), B shares were traded at a significant discount relative to A shares and are traded less frequently than A shares. The "B share discount" has been reduced significantly since the CSRC allowed Chinese citizens to invest and trade B shares (with foreign currency accounts) in 2001.

[10] In 2003, a few Qualified Foreign Institutional Investors (QFII) entered China's asset management industry, and they have been operating through forming joint ventures with Chinese companies. Beginning in 2006, China allows Qualified Domestic Institutional Investors (QDII) to invest in overseas markets.

regulated and controlled by the government, and the real rates on deposits have been low. In summary, China's financial system offers a very limited set of financial products, and, with limited investment choices, households and individual investors pour money into the stock market and real estate market, which has also been speculative. For more information on China's financial system, see Allen, Qian, Zhang and Zhao (2011).

Appendix B The price impact measure

The spread measure represents the cost to execute small-size trading orders. When a large order enters the market, the investor needs to consider the variable component of the trading cost, that is, the price impact caused by the large order itself. In the classical model of Kyle (1985), the price impact stems from the information asymmetry between the informed traders and the uninformed market makers. We follow Hasbrouck (2009) method to empirically estimate the price impact cost. First, we construct the 5-minute stock return and volume from the high-frequency transaction data. Then we conduct the following regression analysis:

$$r_n = \lambda_i \times S_n + \varepsilon_n \qquad (1)$$

r_n is the stock return over the nth 5-minute period. To mitigate the bid-ask bounce problem, we use the mid-quote to calculate the stock return r_n. S_n is the sum of the signed square-root dollar volume over the nth 5-minute period. In other words, $S_n = \sum_k Sign(v_{k,n})\sqrt{|v_{k,n}|}$, where $v_{k,n}$ is the signed dollar volume of the kth trade in the nth 5-minute period. The sign of the trading volume of a particular transaction is defined based on the Lee and Ready (1991) algorithm. Based on Lee and Ready (1991) algorithm, we classify transactions with prices higher (lower) than the midquote as being buyer-initiated (seller-initiated). Transactions occurring at the midquote but with prices higher or equal to (lower than) the previous transaction price are classified as buyer-initiated (seller-initiated) trades. Regression (1) is conducted for each stock on each day to obtain the daily price impact measure (λ_i).

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Table 1 Descriptive Statistics of the Media Sample

Industry classification is based on the CICS first level code from China Securities Index Co. Ptd. 'Number of Stocks' stands for the number of A-share stocks in each sector and 'Number of Shows' refers to the number of shows of *Sector Reports* in each sector. 'Number of stocks on shows' is the total number of stocks covered in the shows within each sector in our sample period. 'Industry Market Cap' is the aggregate market capitalization (in billions of RMB) of A-share stocks within each sector at the end of July, 2007. '% Total Market Cap' is the ratio of market capitalization of stocks on shows to the industry aggregate market capitalization.

Sector Code	Industry name	Number of Stocks	Number of Shows	Number of stocks on show	Industry Market Cap (in billions of RMB)	% Total Market Cap
00	Energy	48	41	26	1,434.01	3%
01	Materials	322	99	113	2,717.31	11%
02	Industrials	358	109	101	2,632.43	10%
03	Consumer Discretionary	292	82	73	1,514.98	7%
04	Consumer Staples	114	52	43	787.72	4%
05	Health Care	114	56	39	466.61	4%
06	Financials	155	48	44	6,685.85	4%
07	Information Technology	121	34	33	364.75	3%
08	Telecommunication Services	39	14	8	259.60	1%
09	Utilities	68	28	17	1,032.29	2%

Table 2. Firm Characteristics

This table reports the firm characteristics for the stocks in the A-share market, in the show and out of the show of *Sector Reports*. 'Number of firms listed' is the number of firms listed on the A-share market. 'Average market cap' is the average of market capitalization (in billions of RMB) at the end of July, 2007. 'Average daily trading volume' is calculated as the cross-sectional average of stock's average daily trading volume (in billions of RMB). 'Average daily number of small trades' is the average of daily number of small trades on stocks. Trades are classified as small trades if they are less than 300,000 RMB or 20,000 shares. 'B/A spread' is the difference between the ask and the bid price scaled by the mid-quote. 'Effective spread' is 2 times the absolute value of the difference between the transaction price and the midquote scaled by the midquote. We calculate the daily average of the spread measures for each stock and report its cross-sectional average. The price impact measure is constructed based on Hasbrouck (2009) and is the coefficient from regressing the stock return measured in basis point over a 5-minute interval onto the signed square-root of trading volume in millions of RMB over the same interval with intercept omitted. 'Order imbalance by count' is the difference between the number of buys and sells scaled by the total number of trades on each day while 'Order imbalance by RMB is the difference between the volume (in RMB) of buys and of sells scaled by the total trading volume (in RMB) on each day. 'Average trading size' is the cross-sectional average of stocks' daily average of trading size and is reported in thousands of RMB. 'Average trading size x100/Market Cap' is the ratio of average trading size multiplied by 100 to the market capitalization at the end of July, 2007. 'Average annual return' is the average of the stock's compounding return over August, 2007 to July, 2008. 'Average annual volatility' is the average of the standard deviation of stock's daily returns over August, 2007 to July, 2008. P/E and B/M are the average of the ratio of quarter-end stock price to quarterly earnings per share, and the average of the ratio of quarterly book value per share to quarter-end stock price, respectively. 'Average return relative to market in past 1 month' is the average of the difference between stock's return in month t and the value-weighted market return in month t-1, while 'Average return relative to market in past 2 (3) months' is the average of the difference between stock's return in month t and the average of the value-weighted market return from month t-2 to t-1 (from month t-3 to t-1). 't-stat (diff)' is the *t*-statistics for the difference in characteristics between on-the-show stocks and off-on-the-show stocks.

	All A-share market	On-show stocks	Off-show stocks	t-stat (diff)
Number of firms listed	1,576.00	303.00	1,273.00	N/A
Average market cap (billions of RMB)	13.47	38.40	7.57	7.60[***]
Average daily trading volume (billions of RMB)	0.16	0.35	0.11	11.72[***]
Average daily number of trades	5,116.08	8,311.13	4,332.82	7.07[***]
Average daily number of small trades (by RMB)	1,170.10	1,611.42	1,062.09	3.30[***]
Average daily number of small trades (by shares)	846.65	1,642.18	651.94	8.70[***]
Average B/A spread (%)	0.21	0.18	0.21	-6.78[***]
Average effective spread (%)	0.22	0.19	0.23	-7.86[***]
Average price impact (%)	0.15	0.10	0.16	-9.49[***]
Average order imbalance by count (%)	0.94	-0.29	1.25	-4.89[***]
Average order imbalance by RMB (%)	-1.62	-2.22	-1.47	-2.38[***]
Average trading size (thousands of RMB)	35.46	53.64	31.01	8.61[***]
Average trading size x 100 /Market cap (%)	0.10	0.05	0.11	-1.27
Average annual return	-25.63	-17.32	-27.66	4.83[***]
Average annual volatility	3.96	3.95	3.96	-0.46
Average P/E	201.45	108.41	223.19	-2.14[**]
Average B/M	0.25	0.24	0.25	-1.10
Average return relative to market in past 1 month	N/A	1.20	0.13	3.89[***]
Average return relative to market in past 2 month	N/A	0.55	-0.53	4.11[***]
Average return relative to market in past 3 month	N/A	-0.10	-1.18	4.19[***]

Table 3. Probit Estimation of TV Coverage

This table reports the Fama-MacBeth estimates of the marginal probabilities from the daily probit regressions of TV coverage on firm and sector characteristics. Panel A shows the regression results at the sector level. The dependent variable is 1 if a sector is covered on the show on day t; and 0 otherwise. Return_Pm1, Return_P1m is the equal-weighted stock returns within the sector in past 1 month. Turnover_P1m is equal-weighted stock turnover, defined as the ratio of share trading volume to number of shares outstanding in past 1 month. ROIB_P1m is the average of daily relative order imbalance, defined as the difference between the number of buys and sells scaled by the total number of trades, in past 1 month. Sector size is the aggregate firm size in trillions of RMB within the sector. Panel B presents the regression results at the stock level. The dependent variable is 1 if a stock is covered on the show on day t; 0 if a stock, which is in the same industry as the on-the-show stock, is not covered on day t. Return_P1m, Return_P3m, Return_P6m and Return_P12m are the stock returns in past 1, 3, 6 and 12 months, respectively. Turnover_P1m, Turnover_P3m, Turnover_P6m and Turnover_P12m are the ratio of share trading volume to number of shares outstanding in past 1, 3, 6 and 12 months, respectively. ROIB_P1m, ROIB_P3m, ROIB_P6m and ROIB_P12m are the average of daily relative order imbalance, defined as the difference between the number of buys and sells scaled by the total number of trades, in past 1, 3, 6 and 12 months, respectively. Size is firm market capitalization in millions of RMB at the end of July, 2007. Fama-Macbeth t-statistics corrected for serial correlation up to 5 lags using the Newey-West method are reported.

Panel A: Sector level regression

	All		Year 2007		Year 2008	
	Estimate	t-stat	Estimate	t-stat	Estimate	t-stat
Return_P1m	-0.003	-0.53	0.002	0.25	-0.006	-0.69
Turnover_P1m	0.276	0.76	-0.278	-0.73	0.551	1.10
ROIB_P1m	-2.469	-0.95	-8.078	-1.29	0.312	0.15
Size	0.718	1.92	0.504	0.92	0.824	1.68

Panel B: Stock level regression

	All		Year 2007		Year 2008	
	Estimate	t-stat	Estimate	t-stat	Estimate	t-stat
Past 1 month						
Return_P1m	0.020	1.76	0.041	1.26	0.009	2.10
Turnover_P1m	-0.035	-2.96	-0.088	-2.76	-0.009	-3.77
ROIB_P1m	-0.083	-4.19	-0.142	-2.52	-0.054	-8.99
Size	0.107	1.24	0.366	1.47	-0.018	-0.93
Past 3 months						
Return_P3m	0.009	1.18	0.023	1.06	0.002	0.70
Turnover_P3m	-0.013	-2.83	-0.032	-2.61	-0.003	-4.09
ROIB_P3m	-0.126	-2.78	-0.210	-1.54	-0.085	-8.99
Size	0.056	1.03	0.212	1.36	-0.019	-1.02
Past 6 months						
Return_P6m	0.001	0.70	-0.004	-1.19	0.004	1.95
Turnover_P6m	-0.004	-3.72	-0.009	-2.99	-0.002	-4.87
ROIB_P6m	-0.104	-6.21	-0.074	-1.76	-0.118	-8.69
Size	0.071	1.35	0.246	1.64	-0.013	-0.88
Past 12 months						
Return_P12m	0.003	3.42	0.002	0.96	0.004	4.13
Turnover_P12m	-0.002	-4.24	-0.005	-3.27	-0.001	-5.88
ROIB_P12m	-0.110	-6.19	-0.076	-1.74	-0.127	-8.35
Size	0.060	1.09	0.235	1.50	-0.024	-1.29

Table 4. Trading of Media and Off-show stocks

The table presents the difference in trading characteristics before and after the show for both media and off-on-the-show stocks as well as their difference. For each on-the-show stock, its corresponding off-on-the-show stock is the simple average of stocks which are in the same industry as the on-the-show stock on the airing day (Day=0) but do not appear on the show during the window of (-30, +30). 'Number of daily trades' is the average number of daily trades. 'Average trading size' is the cross-sectional average of stocks' daily average of trading size and is reported in thousands of RMB. 'Trade size as % of mktcap' is the ratio of average trading size to the market capitalization at the end of July, 2007. Effective bid-ask spread' is 2 times the absolute value of the difference between the transaction price and the midquote scaled by the midquote. The price impact measure is the coefficient from regressing the stock return measured in basis point over a 5-minute interval onto the signed square-root of trading volume in millions of RMB over the same interval with intercept omitted. 'ROIB by count' stands for relative order imbalance defined as the difference between the number of buys and sells scaled by the total number of trades on each day while 'ROIB by RMB is the difference between the volume (in RMB) of buys and of sells scaled by the total trading volume (in RMB) on each day. 'Difference' is the difference in differences of trading characteristics before and after the show for media and off-on-the-show stocks. [*], [**] and [***] denote the statistical significance at the 10%, 5% and 1%, respectively.

	On-show stocks	Off-show stocks	Difference
Panel A: Number of daily trades			
1 vs. -1	-189.152	393.010***	-582.162***
[1,3] vs. [-3,-1]	779.762**	456.796***	322.966
[1,7] vs. [-7,-1]	321.795	321.971***	-0.177
[1,30] vs. [-30,-1]	153.322	185.371***	-32.049
Panel B: Average trade size (in 1,000 RMB)			
1 vs. -1	862.901	37.417	825.484
[1,3] vs. [-3,-1]	123.065	138.845***	-15.780
[1,7] vs. [-7,-1]	138.738	44.876**	93.862
[1,30] vs. [-30,-1]	-216.852	-69.349**	-147.503
Panel C: Trade size as % of market cap			
1 vs. -1	-0.001	0.000	-0.001
[1,3] vs. [-3,-1]	0.001	0.003***	-0.003
[1,7] vs. [-7,-1]	0.000	0.000	-0.001
[1,30] vs. [-30,-1]	-0.005***	-0.003***	-0.002
Panel D: Effective bid-ask spread (%)			
1 vs. -1	0.001	-0.008***	0.009*
[1,3] vs. [-3,-1]	0.002	-0.009***	0.011**
[1,7] vs. [-7,-1]	0.005	-0.008***	0.012***
[1,30] vs. [-30,-1]	0.010***	0.002	0.008**
Panel E: Price impact (%)			
1 vs. -1	0.007	-0.005*	0.012*
[1,3] vs. [-3,-1]	0.008	-0.014***	0.021***
[1,7] vs. [-7,-1]	0.006***	-0.014***	0.021***
[1,30] vs. [-30,-1]	0.004*	-0.015***	0.020***
Panel F: ROIB by count			
1 vs. -1	0.018*	0.017***	0.001
[1,3] vs. [-3,-1]	0.012*	0.011***	0.002
[1,7] vs. [-7,-1]	0.008*	0.003*	0.005
[1,30] vs. [-30,-1]	0.001	-0.003*	0.004
Panel G: ROIB by RMB			
1 vs. -1	0.030**	0.035**	-0.005
[1,3] vs. [-3,-1]	0.011	0.014***	-0.003
[1,7] vs. [-7,-1]	0.007	0.005*	0.002
[1,30] vs. [-30,-1]	-0.004	-0.006***	0.003

Table 5. Trading of Media and Off-show stocks: Subsample analysis

The table presents the difference in trading characteristics before and after the show for both media and off-the-show stocks as well as their difference in year 2007 and 2008. For each on-the-show stock, its corresponding off-the-show stock is the simple average of stocks which are in the same industry as the on-the-show stock on the airing day (Day=0) but do not appear on the show during the window of (-30, +30). 'Difference' is the difference in differences of trading characteristics before and after the show for media and off-on-the-show stocks. All the variables are defined in a saym way as in Table 4. Panel A and B show the results for August to December in 2007, and January to July in 2008, respectively. [*], [**] and [***] denote the statistical significance at the 10%, 5% and 1%, respectively.

Panel A: Sub-period of August to December, 2007			
	On-show stocks	Off-show stocks	Difference
Panel A: Number of daily trades			
1 vs. -1	-12.628	-158.269[*]	145.641
[1,3] vs. [-3,-1]	769.701	-43.413	813.114
[1,7] vs. [-7,-1]	441.507	231.368[***]	210.139
[1,30] vs. [-30,-1]	1151.862[*]	336.140[***]	815.721
Panel B: Average trade size (in 1,000 RMB)			
1 vs. -1	112.458	-49.303[***]	161.762
[1,3] vs. [-3,-1]	-106.655	159.321	-265.976
[1,7] vs. [-7,-1]	-316.764	63.279[**]	-380.043[*]
[1,30] vs. [-30,-1]	-134.381	145.739[***]	-280.119
Panel C: Trade size as % of market cap			
1 vs. -1	-0.001	-0.001[**]	0.000
[1,3] vs. [-3,-1]	0.000	0.006[**]	-0.006[*]
[1,7] vs. [-7,-1]	0.000	0.000	0.000
[1,30] vs. [-30,-1]	-0.005[***]	-0.003[**]	-0.002
Panel D: Effective bid-ask spread (%)			
1 vs. -1	-0.008	-0.002[*]	-0.005
[1,3] vs. [-3,-1]	-0.013[***]	-0.002[*]	-0.011[**]
[1,7] vs. [-7,-1]	-0.008[**]	-0.007[***]	-0.001
[1,30] vs. [-30,-1]	-0.005[*]	-0.004[*]	-0.002
Panel E: Price impact (%)			
1 vs. -1	0.012	-0.008[***]	0.020[*]
[1,3] vs. [-3,-1]	0.003	-0.014[***]	0.016[***]
[1,7] vs. [-7,-1]	-0.001	-0.014[***]	0.013[***]
[1,30] vs. [-30,-1]	-0.008[***]	-0.015[***]	0.008
Panel F: ROIB by count			
1 vs. -1	0.018	0.004[**]	0.014
[1,3] vs. [-3,-1]	0.013	0.001	0.012
[1,7] vs. [-7,-1]	0.012[*]	0.001	0.011
[1,30] vs. [-30,-1]	0.003	0.002[***]	0.001
Panel G: ROIB by RMB			
1 vs. -1	0.022	0.003	0.019
[1,3] vs. [-3,-1]	0.007	-0.012[***]	0.019
[1,7] vs. [-7,-1]	0.012	0.003[*]	0.009
[1,30] vs. [-30,-1]	-0.002	-0.008[***]	0.006

Panel B: Sub-period of January to July, 2008

	On-show stocks	Off-show stocks	Difference
	Panel A: Number of daily trades		
1 vs. -1	-326.955	704.714[***]	-1031.669[**]
[1,3] vs. [-3,-1]	787.339	769.028[***]	18.311
[1,7] vs. [-7,-1]	240.424	375.065[***]	-134.641
[1,30] vs. [-30,-1]	-522.881[*]	97.020	-619.901[**]
	Panel B: Average trade size (in 1,000 RMB)		
1 vs. -1	1448.731	86.451[*]	1362.280
[1,3] vs. [-3,-1]	296.053	126.065[***]	169.988
[1,7] vs. [-7,-1]	448.349	34.091	414.258
[1,30] vs. [-30,-1]	-272.702	-195.391[***]	-77.310
	Panel C: Trade size as % of market cap		
1 vs. -1	-0.001	0.000	-0.001
[1,3] vs. [-3,-1]	0.002	0.002[***]	0.000
[1,7] vs. [-7,-1]	-0.001	0.000	-0.001
[1,30] vs. [-30,-1]	-0.005[***]	-0.003[***]	-0.002
	Panel D: Effective bid-ask spread (%)		
1 vs. -1	0.007	-0.012[***]	0.019[***]
[1,3] vs. [-3,-1]	0.012[**]	-0.014[***]	0.027[***]
[1,7] vs. [-7,-1]	0.013[***]	-0.008[***]	0.021[***]
[1,30] vs. [-30,-1]	0.021[***]	0.005	0.016[***]
	Panel E: Price impact (%)		
1 vs. -1	0.004	-0.004	0.007
[1,3] vs. [-3,-1]	0.012[***]	-0.014[***]	0.025[***]
[1,7] vs. [-7,-1]	0.011[***]	-0.014[***]	0.026[***]
[1,30] vs. [-30,-1]	0.013[***]	-0.015[***]	0.028[***]
	Panel F: ROIB by count		
1 vs. -1	0.019	0.025[***]	-0.006
[1,3] vs. [-3,-1]	0.012	0.017[***]	-0.005
[1,7] vs. [-7,-1]	0.005	0.004	0.001
[1,30] vs. [-30,-1]	0.000	-0.005[***]	0.006
	Panel G: ROIB by RMB		
1 vs. -1	0.036[**]	0.053[***]	-0.017
[1,3] vs. [-3,-1]	0.014	0.031[***]	-0.017
[1,7] vs. [-7,-1]	0.004	0.007	-0.003
[1,30] vs. [-30,-1]	-0.005	-0.005[**]	0.001

Table 6. Trading Activities of Media and Off-show stocks By Investor Type

The table reports the difference in trading characteristics before and after the show for small and large investors and their difference. Trades are assumed to be conducted by small investors if they are less than 300,000 RMB and by large investors if they are larger than 2,000,000 RMB. 'Number of daily trades' is the average number of daily trades. '% of total trades, counts' is the percentage of small or large trades in the daily total number of trades and '% of total trades, RMB' is the percentage of trading volume of small or large trades in the daily total trading volume. 'Average trade size, 1000 shares' and 'Average trade size, 1000 RMB' are the average trading volume in shares and in RMB on each day for each investor type, respectively. 'Total volume, millions of shares' and 'Total volume, millions of RMB' are the aggregate trading volume in shares and in RMB on each day for each investor type, respectively. 'Difference' is the difference in differences of trading characteristics before and after the show for small and large investors. Panel A and B reports the results for buys and sells, respectively, where buy and sell are classified based on the Lee and Ready (1991) algorithm. *, ** and *** denote the statistical significance at the 10%, 5% and 1%, respectively.

	Panel A: Buys					
	On-show stocks			Off-show stocks		
	Number of daily trades					
	Small	Large	Difference	Small	Large	Difference
1 vs. -1	-34.085	-16.640	17.445	40.950*	-51.175***	-92.125***
[1,3] vs. [-3,-1]	112.363**	79.886	-32.477	44.207***	-19.315*	-63.522***
	% of total trade, counts					
1 vs. -1	-0.005	-0.069	-0.064	1.718***	-1.465***	-3.183***
[1,3] vs. [-3,-1]	-0.007	-0.025	-0.018	1.699***	-1.758***	-3.457***
	% of total trade, RMB					
1 vs. -1	0.009	-0.292	-0.301	0.383***	-1.741***	-2.124***
[1,3] vs. [-3,-1]	0.013	-0.204	-0.217	0.462***	-2.284***	-2.746***
	Average trade size, 1000 shares					
1 vs. -1	-0.115	41.641	41.757	0.691***	9.997***	9.306**
[1,3] vs. [-3,-1]	-0.045	14.285	14.330	0.475***	-13.938***	-14.412***
	Average trade size, 1000 RMB					
1 vs. -1	-2.197	973.389	975.585	-0.837*	-137.614*	-136.778*
[1,3] vs. [-3,-1]	-1.393	165.062	166.456	-0.658***	-279.960***	-279.301***
	Total volume, millions of shares					
1 vs. -1	-0.810	66.053	66.863	1.018**	-54.396***	-55.414**
[1,3] vs. [-3,-1]	1.349**	113.671***	112.322**	1.287***	-13.764	-15.050*
	Total volume, millions of RMB					
1 vs. -1	-8.728	776.540	785.268	7.187**	-587.292***	-594.478***
[1,3] vs. [-3,-1]	20.592**	922.659	902.068	5.571**	-316.106***	-321.677***

		On-show stocks			Off-show stocks	
			Panel B: Sells			
	Small	Large	Difference	Small	Large	Difference

<table>

		Panel B: Sells				
	On-show stocks			**Off-show stocks**		
	Number of daily trades					
	Small	Large	Difference	Small	Large	Difference
1 vs. -1	-40.096	-61.233	-21.137	102.420***	56.540***	-45.880***
[1,3] vs. [-3,-1]	73.400	48.498	-24.903	64.536***	46.094***	-18.442
	% of total trade, counts					
1 vs. -1	-0.368*	-0.146	0.221	1.172***	-1.228***	-2.400***
[1,3] vs. [-3,-1]	-0.224	0.267	0.491	0.630***	-0.567***	-1.197***
	% of total trade, RMB					
1 vs. -1	-0.022	-0.722**	-0.700**	0.215***	-1.389***	-1.604***
[1,3] vs. [-3,-1]	-0.009	-0.145	-0.136	0.123***	-0.658***	-0.781***
	Average trade size, 1000 shares					
1 vs. -1	-0.071	49.334	49.405	0.269***	-6.298**	-6.567**
[1,3] vs. [-3,-1]	-0.036	19.539	19.576	0.054	-5.873***	-5.927***
	Average trade size, 1000 RMB					
1 vs. -1	-1.516	920.656	922.172	-0.429***	-102.707**	-102.278**
[1,3] vs. [-3,-1]	-0.924	156.214	157.138	0.098	15.913	15.815
	Total volume, millions of shares					
1 vs. -1	-0.644	9.047	9.691	2.027***	55.694***	53.667***
[1,3] vs. [-3,-1]	0.830	89.319**	88.489**	1.182***	58.323***	57.140***
	Total volume, millions of RMB					
1 vs. -1	-10.489**	-265.922	-255.433	17.649***	1027.962***	1010.313***
[1,3] vs. [-3,-1]	13.269	588.246	574.977	10.467***	871.621***	861.154***

</table>

Table 7. Liquidity, media and investor type

The table presents the results on a panel regression of liquidity on the explanatory variables. In Panel A, the dependent variable is the effective spread in percentage multiplied by 100. In Panel B, liquidity is measured by the price impact measure, which is the coefficient from regressing the stock return measured in basis point over a 5-minute interval onto the signed square-root of trading volume in millions of RMB over the same interval with intercept omitted. $D_{OffShow}$ is a dummy variable whose value is 0 if a stock is covered in the show and 1 if the stock is in the same industry as the media stock(s) but is not covered in the show. $D_{PostShow}$ takes a value of 1 for days after the show and 0 otherwise. '% ST' is the percentage of total trades from small traders, defined as the trades with volume less than 300,000 RMB, while '% LT' is the percentage of total trades from large traders, defined as the trades with volume greater than 2,000,000 RMB. Size is firm market capitalization in trillions of RMB. We also include the sector dummy variables in the regressions. Setting the show date to be day 0, we use stocks with $D_{OffShow}$ either equal 1 or 0 within the window of [-30, 30] in the regression. We include the firm and time fixed effects in the panel regression. *t*-statistics are reported in italic type. The estimated coefficients for the sector dummy variables are not reported for simplicity.

Panel A: Effective spread

	y = Effective spread (%) x 100											
	Whole sample period				From Aug to Dec, 2007				From Jan to Jul, 2008			
Intercept	0.169	-0.035	0.249	0.022	0.067	0.022	0.104	0.039	0.202	0.004	0.265	0.066
	26.56	*-5.89*	*40.71*	*3.57*	*16.60*	*5.51*	*25.74*	*9.58*	*24.42*	*0.47*	*33.10*	*8.31*
$D_{offshow}$	0.001	-0.003	-0.006	-0.004	0.000	-0.003	-0.003	-0.003	0.005	0.001	-0.001	0.000
	1.14	*-2.81*	*-4.89*	*-3.81*	*0.07*	*-3.31*	*-3.78*	*-3.74*	*3.13*	*0.91*	*-0.47*	*0.15*
$D_{PostShow}$	0.018	0.007	0.005	0.006	0.003	0.001	0.000	0.001	0.017	0.008	0.006	0.006
	10.01	*3.97*	*2.73*	*3.32*	*1.99*	*0.77*	*0.28*	*0.56*	*7.51*	*3.55*	*2.73*	*3.03*
$D_{Offshow}*D_{PostShow}$	-0.003	0.003	-0.013	-0.005	-0.001	0.005	-0.008	0.001	-0.007	0.000	-0.019	-0.012
	-2.10	*1.54*	*-7.84*	*-2.58*	*-1.03*	*4.01*	*-6.62*	*0.47*	*-3.53*	*0.01*	*-9.59*	*-5.14*
% of trades from retail investors* $D_{Offshow}*D_{PostShow}$		-0.038		-0.021		-0.031		-0.021		-0.038		-0.015
		-29.17		*-8.96*		*-21.13*		*-8.23*		*-24.74*		*-5.25*
% of trades from large investors* $D_{Offshow}*D_{PostShow}$			0.034	0.017			0.025	0.008			0.042	0.025
			33.92	*9.53*			*30.13*	*5.63*			*34.14*	*11.44*
% of trades from retail investors		0.660		0.547		0.254		0.214		0.578		0.456
		55.50		*29.48*		*17.95*		*10.43*		*39.53*		*20.39*
% of trades from large investors			-0.460	-0.126			-0.129	-0.035			-0.435	-0.145
			-46.81	*-8.43*			*-14.51*	*-2.70*			*-34.20*	*-7.60*
Size	-0.166	-0.015	-0.069	-0.015	-0.024	-0.036	-0.016	-0.032	-0.147	-0.026	-0.068	-0.025
	-36.34	*-3.58*	*-15.65*	*-3.44*	*-3.37*	*-4.97*	*-2.17*	*-4.47*	*-26.66*	*-4.80*	*-12.69*	*-4.75*
Time fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-square	21.32%	29.66%	27.22%	29.85%	49.87%	52.07%	51.20%	52.13%	23.47%	28.65%	27.25%	28.83%

Panel B: Price impact

	y = Price impact (%)											
	Whole sample period				From Aug to Dec, 2007				From Jan to Jul, 2008			
Intercept	0.040	-0.194	0.159	0.027	0.003	-0.058	0.063	0.001	0.046	-0.208	0.153	0.043
	6.44	*-33.93*	*28.37*	*4.77*	*0.33*	*-5.86*	*6.36*	*0.14*	*6.28*	*-30.39*	*23.03*	*6.38*
D$_{offshow}$	0.007	0.001	-0.004	-0.003	0.004	0.001	-0.001	-0.001	0.008	0.004	-0.001	-0.000
	5.76	*1.17*	*-3.59*	*-2.94*	*1.99*	*0.33*	*-0.42*	*-0.33*	*6.35*	*3.15*	*-0.75*	*-0.31*
D$_{PostShow}$	0.012	0.005	0.000	0.001	0.001	-0.001	-0.002	-0.002	0.014	0.008	0.003	0.003
	6.55	*3.21*	*0.13*	*0.49*	*0.16*	*-0.19*	*-0.58*	*-0.50*	*6.90*	*4.32*	*1.70*	*1.88*
D$_{Offshow}$*D$_{PostShow}$	-0.009	0.000	-0.017	-0.009	-0.003	0.001	-0.011	-0.008	-0.014	-0.006	-0.023	-0.021
	-5.22	*0.16*	*-11.18*	*-5.32*	*-1.12*	*0.25*	*-3.60*	*-2.07*	*-7.70*	*-3.50*	*-13.92*	*-10.96*
% of trades from retail investors* D$_{Offshow}$*D$_{PostShow}$		-0.040		-0.020		-0.022		-0.004		-0.030		-0.003
		-32.23		*-9.06*		*-6.07*		*-0.62*		*-22.39*		*-1.48*
% of trades from large investors* D$_{Offshow}$*D$_{PostShow}$			0.040	0.025			0.026	0.018			0.044	0.038
			43.45	*15.27*			*12.96*	*4.94*			*43.95*	*20.92*
% of trades from retail investors		0.758		0.319		0.343		0.203		0.739		0.254
		26.70		*18.52*		*9.81*		*4.00*		*18.59*		*13.57*
% of trades from large investors			-0.686	-0.491			-0.214	-0.124			-0.751	-0.590
			-7.61	*-5.41*			*-9.79*	*-3.93*			*-7.10*	*-6.85*
Size	-0.062	-0.105	-0.078	-0.108	0.012	-0.010	0.021	0.005	-0.058	-0.090	-0.069	-0.093
	-14.03	*-25.59*	*-19.22*	*-27.05*	*0.65*	*-0.52*	*1.16*	*0.29*	*-11.71*	*-19.65*	*-15.38*	*-20.86*
Time fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-square	45.84%	53.77%	55.38%	56.02%	26.25%	27.41%	27.40%	27.61%	52.95%	59.50%	61.70%	62.08%

Table 8. Trading Profits

This table reports the profits on trading on-the-show stocks and off-on-the-show stocks, before and after the show, for small and large investors. Trades are assumed to be conducted by small investors if they are less than 300,000 RMB and by large investors if they are larger than 2,000,000 RMB. For buys over the window [n,m], the trading profits are calculated as the average selling price on day m minus the average buying price on day n-1, divided by the average buying price on day n-1. For sells over the window [n,m], the trading profits are calculated as the negative of the average buying price on day m minus the average selling price on day n-1, divided by the average selling price on day n-1. 'Difference' is the difference in trading profits of on-the-show stocks and off-on-the-show stocks for each investor type. Panel A and B reports the results for buys and sells, respectively, where buy and sell are classified based on the Lee and Ready (1991) algorithm. *, ** and *** denote the statistical significance at the 10%, 5% and 1%, respectively.

	Panel A: Buys					
	On-show stocks	Off-show stocks	Difference	On-show stocks	Off-show stocks	Difference
	Before the show					
	[-3, -1] Window			[-1, -1] window		
Small trades	0.017	1.923*	1.906	-0.355	-0.615***	-0.260
Large trades	-0.131	0.534	0.665	-0.065***	-0.067***	-0.002
	After the show					
	[+1, +3] Window			[+1, +1] window		
Small trades	1.604**	4.563***	2.959**	0.006	0.199	0.193
Large trades	1.730**	3.337**	1.607	-0.112***	-0.105***	0.006
	Panel B: Sells					
	On-show stocks	Off-show stocks	Difference	On-show stocks	Off-show stocks	Difference
	Before the show					
	[-3, -1] Window			[-1, -1] window		
Small trades	-0.117	1.175	1.291	0.207	0.378**	0.171
Large trades	-0.180	-0.919	-0.739	0.036	0.227	0.190
	After the show					
	[+1, +3] Window			[+1, +1] window		
Small trades	-1.844***	-1.780	0.064	-0.305	-0.539***	-0.234
Large trades	-1.978***	-3.685***	-1.707	-0.345	-0.664***	-0.318

Table 9. Cumulative Abnormal Returns of On-show and Off-show Stocks

The table reports the cumulative abnormal returns (CAR) for on-the-show stocks and off-on-the-show stocks. For each on-the-show stock, its corresponding off-on-the-show stock is the simple average of stocks which are in the same industry as the on-the-show stock on the airing day (Day=0) but do not appear on the show during the window of (-30, +30). The market factor, the size factor (SMB) and the value factor (HML) are constructed in the same way as Fama and French (1993). The momentum factor is the difference between the value-weighted average of firms with highest 30% 11-month returns ending on day -30 and the value-weighted average of firms with lowest 30% 11-month returns ending on day -30. We use the prior 12-month daily return ending on day -30 to estimate the beta for each factor. Panel A, B and C report the alphas in the CAPM, the Fama-French three-factor model and the Carhart four-factor model, respectively. 'Difference' is the difference in CAR between on-the-show stocks and off-on-the-show stocks. *, ** and *** denote the statistical significance at the 10%, 5% and 1%, respectively.

	On-show stocks	Off-show stocks	Difference
Panel A: CAPM Alpha			
CAR (-30, -1)	5.098***	1.416***	3.681***
CAR (-7, -1)	0.751**	0.200	0.551
CAR (-3, -1)	0.134	0.029	0.105
CAR (0)	0.403***	0.253**	0.150
CAR(1,3)	0.786***	0.309***	0.467**
CAR(1,7)	1.367***	0.619***	0.748***
CAR(1,30)	0.926	-0.812***	1.739***
Panel B: Fama-French Alpha			
CAR (-30, -1)	4.316***	1.175***	3.141***
CAR (-7, -1)	0.541*	0.026	0.515*
CAR (-3, -1)	-0.015	-0.138***	0.122
CAR (0)	0.444***	0.183***	0.260*
CAR(1,3)	0.863***	0.211***	0.651***
CAR(1,7)	1.061***	0.262***	0.800***
CAR(1,30)	1.861***	0.110	1.751***
Panel C: Carhart 4-factor Alpha			
CAR (-30, -1)	3.813	2.807***	1.005
CAR (-7, -1)	0.806	0.501**	0.305
CAR (-3, -1)	0.159	0.128	0.031
CAR (0)	0.465*	0.253***	0.212
CAR(1,3)	0.802**	0.286***	0.516
CAR(1,7)	1.221	0.436***	0.784
CAR(1,30)	1.757	0.995*	0.762

Table 10. Retail trading and CAR

The table presents the regression results on the relation between trading from retail investors and the cumulative abnormal returns. The dependent variable is the change in 3-day cumulative abnormal returns (CAR) post-show relative to pre-show for the on-the-show stocks minus the same change for off-the-show stocks. In other words it is the difference-in-difference on 3-day CARs between the two sets of stocks. '% of buys (sells) from retail investors' is the percentage of total number of buys (sells) from retail investors, and '% of buys (sells) from large investors' is the percentage of total number of buys (sells) from large investors. All these variables are measured in difference between on-the-show and off-the-show stocks in difference after and before the show. Trades are assumed to be conducted by small investors if they are less than 300,000 RMB and by large investors if they are larger than 2,000,000 RMB. Panel A, B and C report the CAR using alphas in the CAPM, the Fama-French three-factor model and the Carhart four-factor model, respectively.*, ** and *** denote the statistical significance at the 10%, 5% and 1%, respectively.

Panel A: CAPM alpha				
Intercept	0.039	-0.125	-0.017	-0.041
% of buys from small investors	-0.323***		-0.245***	-0.010
% of sells from small investors		-0.276***	-0.135*	0.050
% of buys from large investors				0.242***
% of sells from large investors				0.150***
R-squared	7.09%	5.19%	7.93%	20.21%
Panel B: Fama-French Alpha				
Intercept	0.237	0.122	0.181	0.164
% of buys from small investors	-0.214***		-0.202*	0.039
% of sells from small investors		-0.214***	-0.136**	0.013
% of buys from large investors				0.197***
% of sells from large investors				0.098***
R-squared	3.72%	3.74%	4.74%	13.84%
Panel C: Carhart 4-factor Alpha				
Intercept	0.260	0.146	0.206	0.188
% of buys from small investors	-0.212***		-0.136**	0.038
% of sells from small investors		-0.210***	-0.132**	0.020
% of buys from large investors				0.201***
% of sells from large investors				0.096***
R-squared	3.60%	3.54%	4.53%	13.67%

Figure 1.Cumulative Abnormal Returns around Show Dates

Figure 1 plot the cumulative abnormal returns (CAR) for both media and off-on-the-show stocks over the window (-30, 30), where the airing day is set to day 0. For each on-the-show stock, its corresponding off-on-the-show stock is the simple average of stocks which are in the same industry as the on-the-show stock on the airing day but do not appear on the show during the window of (-30, +30). The market factor, the size factor (SMB) and the value factor (HML) are constructed in the same way as Fama and French (1993). The momentum factor is the difference between the value-weighted average of firms with highest 30% 11-month returns ending on day -30 and the value-weighted average of firms with lowest 30% 11-month returns ending on day -30. We use the prior 12-month daily return ending on day -30 to estimate the beta for each factor. Figure 1a, 1b and 1c plot the CAR using the alphas in the CAPM, the Fama-French three-factor model and the Carhart four-factor model, respectively.
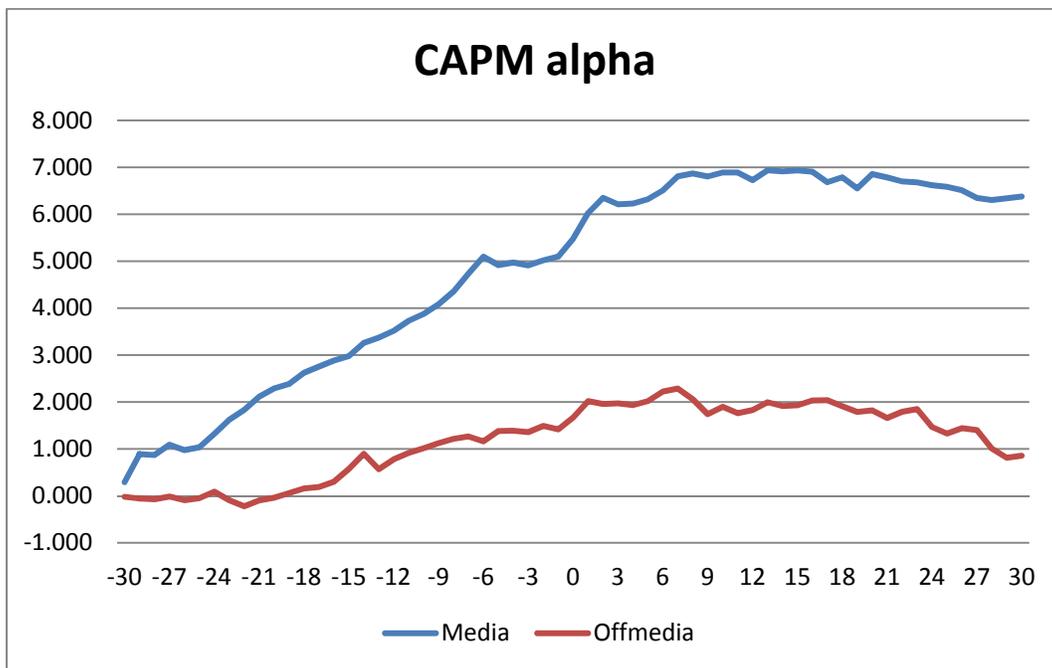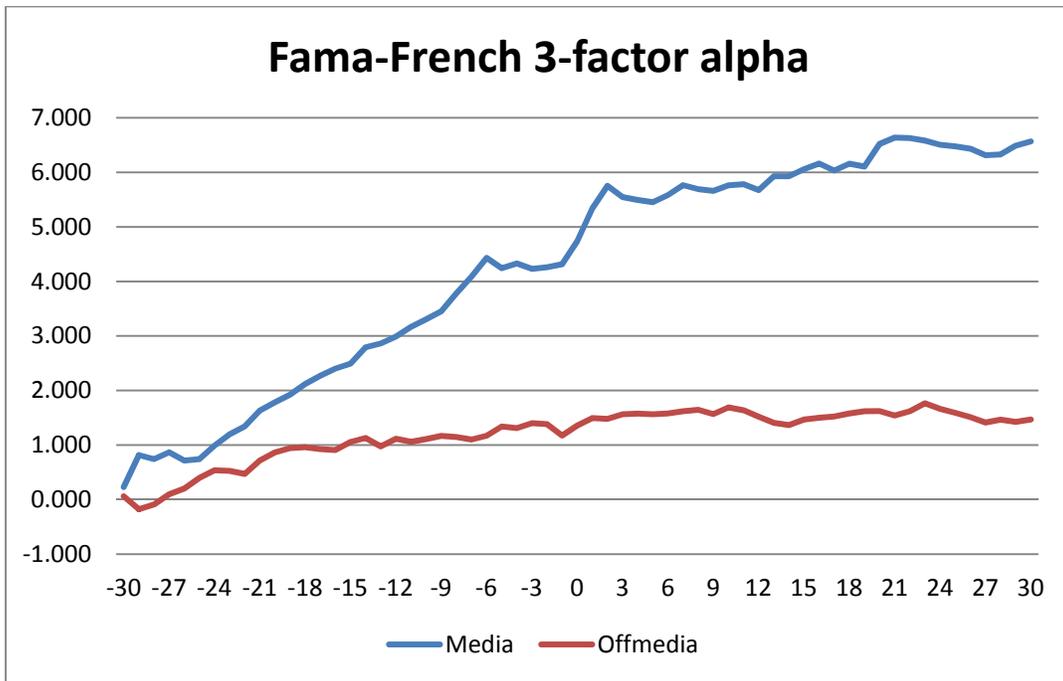
Figure 1a

Figure 1b

Fama-French 3-factor alpha

Media   Offmedia
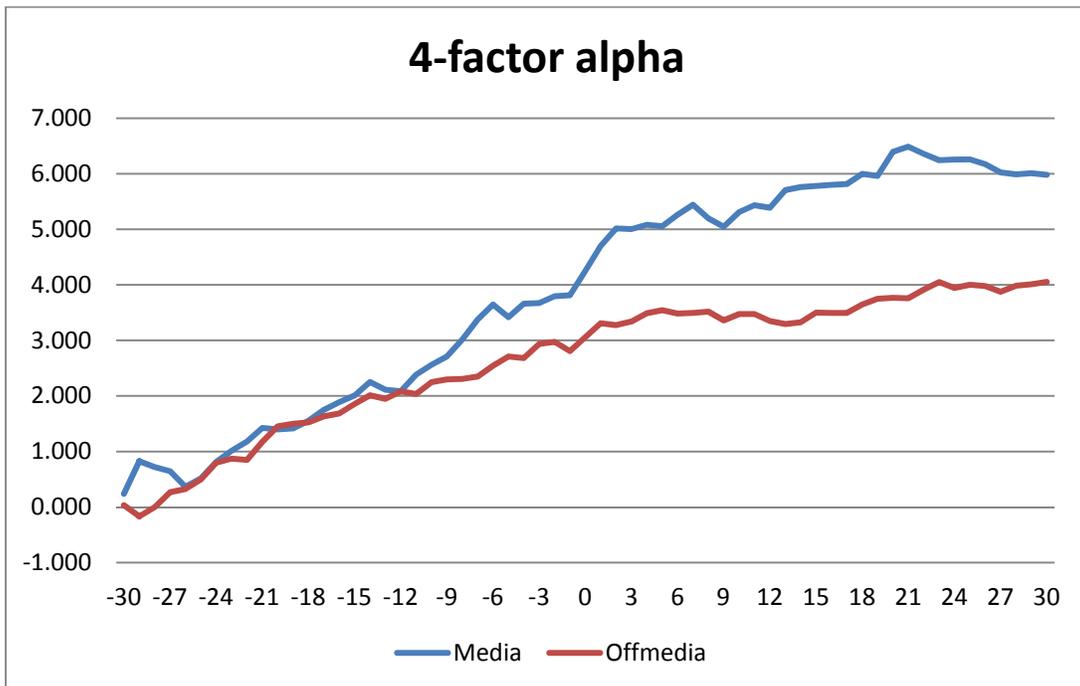
Figure 1c

4-factor alpha

Media   Offmedia

**Figure A1. A Comparison of Performance of Major Stock Indexes
(Buy-and-hold returns of $1 between Dec. 1992 and Dec. 2010; inflation adjusted)**