Is Good News for a Firm Also Good News for A Nearby Firm? Geography and Comovement of Stock Returns

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Abstract
This study explores how investors incorporate seemingly unrelated news in stock prices. Specifically, we examine how a firm's dividend initiation announcement (positive news) influences stock prices of seemingly unrelated firms within the same metropolitan statistical area (MSA). After accounting for firm, industry and geography characteristics, we find that dividend paying firms located where a high percentage of the population is comprised of senior citizens experience a positive comovement reaction when a seemingly unrelated firm located in the same MSA makes a dividend initiation announcement. The positive reaction results are found specifically for dividend paying firms, while non-dividend payers do not experience a significant impact. These results are robust to numerous regression methods and lend support to the positive investor attention hypothesis as areas with a high percentage of senior citizens reward dividend paying firms in the same MSA by attributing positive news to all dividend paying firms in the same MSA. Collectively, these findings are consistent with the view of "coarse thinking" of investors and indicate that demographics of a firm's location play an important role in comovement of stock returns.

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We are responsible for any remaining errors.

1. Introduction

Previous studies show that comovement in stock returns cannot be fully explained by common economic factors (Barberis and Shleifer, 2003; Barberis, Shleifer, and Wurgler, 2005; Kumar and Lee, 2006). While these studies provide valuable insights on how investors behave, there is still a limited understanding on the channels through which investors incorporate seemingly unrelated news into stock prices. This paper helps fill the void in the literature by examining the effects of good news of a company on firms that do not have correlated cash flows while sharing a similar investor base. Specifically we examine how a firm's dividend initiation announcement (positive news) influences stock prices of seemingly unrelated firms.[1]

A priori, it is not clear that positive news of firm would affect stock prices of seemingly unrelated firms. It is possible that investors may not use these news announcements in assessing the value of unrelated firms, such that the effect of positive news is limited to the stock value of the underlying firm and does not affect seemingly unrelated firms. Alternatively, even in the absence of correlated cash flows, this type of news may serve as an attention-grabbing event for seemingly unrelated firms. Individual investors have limited resources (Khanna et. al, 1994) and are bounded by "coarse thinking" (Massa and Zhang, 2009) which cause them to place a greater value on a particular group of firms based on their affiliation with the news creating firm. Thus, a release of positive news, which attracts an individual investor clientele, may cause underlying clientele of investors to be attracted towards a set of firms that had already generated the same positive news. This may lead to an increase in the stock prices of seemingly unrelated firms (positive investor attention hypothesis).

[1] Previous studies show that dividend initiating firms receive favorable market reaction surround announcement dates (Asquith and Mullins, 1983; Healy and Palepu, 1988; Michaely et. al, 1995).

The news may also generate an unfavorable market reaction for the seemingly unrelated firms. Specifically, firms compete for the investor attention (Hirshleifer et. al, 2009) and firms with positive news distinguish themselves from the ones that had not generated such news. Thus, seemingly unrelated firms lacking a history of similar positive news may receive negative market reaction (negative investor attention hypothesis).

We test the previous mentioned hypotheses by assessing the impact that similar investor clientele has on the stock prices of seemingly unrelated dividend paying and non-dividend paying firms in response to a dividend initiation of a firm located within the same MSA. Specifically, we define observations as seemingly unrelated firms if the firms are located in same MSA but are categorized in a different industry. The announcement of a dividend initiation is not only absolute good news for the underlying firm indicating a shift from a non-dividend paying firm to a dividend payer, but also captures investor attention, (Barber and Odean, 2008).

Dividend paying and non-paying firms constitute differing clientele bases (Bell and Jenkinson, 2002). Especially, senior citizens form an important clientele for dividend paying firms and have correlated trades which can influence stock prices (Graham and Kumar, 2006).[2] Geographical location also generates investor clienteles. Specifically, Coval and Moskowitz (1999) show that investors tend to invest locally. Combined with the studies on dividends, these studies suggest that senior citizens invest in stocks of companies located within the same MSA; thereby, forming a geographically segmented investor clientele. In addition to accounting for local macroeconomic shocks in our analysis, exclusion of firms in the same industry grouping as the dividend initiating firm, controls for industry effects and allows us to analyze the equity

[2] We follow the previous studies of Graham and Kumar (2006) and Becker et. al (2011) for our definition of senior citizens as individuals over the age of 64. Graham and Kumar conclude dividend preferences vary with the age of investors. Becker et. al find evidence that the demographic makeup an area has the ability to influence firm policies.

impact of the dividend initiation on firms within the same MSA but have non-correlated cash flows and risk. Collectively, we are able to identify similar investor groups between the firms in the MSA and the firm that has begun to pay dividends.

The findings in this paper reveal novel evidence on the comovement of stock returns. Specifically, after accounting for firm characteristics and common macroeconomic shocks in a region, we find that seemingly unrelated firms in an MSA receive a favorable market reaction of 40 basis points when there is a high percentage of senior citizen population in the MSA. The positive reaction results are found specifically for dividend paying firms, while non-dividend payers do not experience a significant impact. Collectively, these findings are consistent with the Positive Investor Direction Hypothesis as firms' equity prices are benefiting from irrational senior investors, who incorporate the positive news to all dividend paying firms located in the area.

We take further steps to examine robustness of the findings. These results are robust to several model specifications and numerous relatedness classifications including Hoberg and Phillips Text-based Network Industry Classifications (Hoberg and Phillips, 2010a, 2010b). We also run separate regressions for mean variables both at the dividend initiation announcements and at the MSA levels. The results remain intact for the subsample of seemingly unrelated dividend paying firms in MSAs with a relatively high proportion of senior citizens. However, non-dividend payers did not receive a significant market reaction from the news. This provides further evidence of the Positive Investor Direction Hypothesis.

This study relates to studies examining the comovement of stock returns. Pirinsky and Wang (2006) find that comovement of stock returns cannot be fully explained by firm fundamentals. By our findings that high percentage of senior citizens influence market reactions

to seemingly unrelated firms in the same metropolitan statistical area (MSA), our paper documents regional demographics as a channel through which the comovement of stock returns can transpire. Furthermore, we contribute to the literature that investigates the implications of a firm's location on stock returns. Local investors tend to invest more heavily in local companies and have the ability to impact the equity prices (Ivkovic and Weisbenner, 2005; Hong et. al, 2008). The findings in this paper suggest the ability of the demographic composition surrounding the firm to positively influence stock returns depends on the match between local investor clientele and firm characteristics.

Our paper is related to previous studies that examine the effects of investor psychology. Investors do not always act rationally when incorporating news announcements and analyzing a firm's fundamentals (Daniel et. al, 1998; Dong et al., 2006; Hirshleifer et al., 2004; Hirshleifer et. al, 2009; Hirshleifer and Teoh, 2003). Our findings in the paper contribute to these studies by not only documenting evidence that the local demographics of a firm engage in coarse thinking but that their behavior is directional. Investors direct their attention positively towards the new group of firms associated with the news generating firm, which in turn diverts investor attention away from the previous group of association. Thus, this type of investor behavior does not uniformly impact the equity valuations for all companies located within the same MSA.

Finally, results of this study improve our understanding of the implications for dividend announcements. Prior literature has shown that dividend initiations result in positive market reactions for the company making the announcement (Asquith and Mullins, 1983; Healy and Palepu, 1988; Michaely et. al, 1995). This has been documented as managers attempt to use their knowledge of the ability of the underlying business to send a signal to investors as provided by Lintner (1956) and Miller and Rock (1985). Our research contributes to this vein of literature

as providing support that dividend announcements do not only favorably impact the announcing firm but also other dividend paying firms that are located within the same geography proximity.

The paper is organized as follows. Section 2 discusses the development of the relevant hypotheses. Section 3 provides details of sample selection and descriptive statistics of the data. Section 4 reports the univariate results based on the percentage of senior citizen population. Section 5 discusses the regression analyses, and Section 6 provides robustness checks. Section 7 concludes the paper based on the findings.

2. Hypotheses Development

Investor clientele are not only limited by available resources (Khanna et. al, 1994), but also by the amount of attention that they can expend when evaluating firm' prospects (Hirshleifer et. al, 2009). One avenue where firms capture investor attention is through news announcements. Dividend announcements are a particular type of news announcement that attract attention to the firm. Investors incorporate this new information and may draw personal inferences from the news affecting their projected valuations for the firm, as investors tend to place a higher value on information that is deemed to be private or gained through personal insight (Daniel et. al, 1998).

Companies that initiate dividends send a signal to the market considering the firm's future prospects. The market typically reacts positively to these new dividend paying firms upon the news announcement (Asquith and Mullins, 1983; Healy and Palepu, 1988; Michaely et. al, 1995). News announcements attract the attention of the market and positive news portrays the firm in a beneficial way to the market.

Senior citizens are a portion of the market that would pay particular attention to dividend initiations compared to other investors, as each investor base possesses different investment

agendas. This group of investors tends to show a preference for owning dividend paying stocks (Graham and Kumar, 2006). Therefore, dividend initiations would especially capture the attention of senior citizen investors in the market place.

Dividend initiations also attract special attention from the local investor clientele, as investors tend to invest locally in firms that are in their same MSA (Coval and Moskowitz, 1999, 2001; Hong et. al, 2008). Feng and Seasholes (2004) confirm that investor groups located within the same region tend to buy and sell securities in unison patterns within a reasonable time frame. Investors that are geographically close in proximity tend to invest in similar patterns provide the foundation for comovements among stock prices in the same MSA.

Combining the findings that senior citizens prefer dividend paying stocks and local investors tend to invest in local companies, geographical senior citizen clientele should have an increased interest in local dividend paying firms. Therefore, the composition of the local population is important to firms, since the demographics of the population surrounding a firm have been shown to influence businesses. Massa and Zhang (2009) find evidence of a halo effect when analyzing bidders and targets in acquisitions as investors give a positive view on the bidder's underlying assets as provided by the target's popular values. These type of comovements have been attributed to investors evaluating companies based on a firm's grouping rather than the firm's fundamentals (Barberis and Shleifer, 2003; Barberis et. al, 2005; Patton and Verardo, 2012). Becker et. al (2011) find that a particular group of local investors has the ability to influence the financial policies of local businesses, in particular, the senior citizen can impact firm dividend payout policies.

Positive news (dividend initiations) attracts the attention of particular groups of investors and leads to positive movements in the news generating firm's stock price. Firm groupings

based on acquisitions have positive implications for other firms within the similar group described as the halo effect (Massa and Zhang, 2009). Firms that pay dividends and firms that are initiating dividends have a similar corporate history. Coupling this with the halo effect extends the notion that companies are impacted by the actions of other local businesses with similar corporate histories. This understanding provides the positive investor attention hypothesis:

H1a: Seemingly unrelated dividend paying firms will obtain a favorable market reaction when a firm making a dividend initiation announcement is located in an area with a high percentage of senior citizens.

Prior literature has shed light on the implications of investor attention in not only analyzing the quantity of firm announcements, but also the number of differing industries on announcing firms. Hirshleifer et. al (2009) document the impact of earning announcements on the equity valuation is dependent on how many other firms are announcing and the relatedness between firms making the announcements. Attracting and maintaining investor attention is vital for firms to manage with the improvements in technology and the ease in which information can be disseminated to investors. Tetlock (2007) provides evidence that investors incorporate news articles in their guidance for market valuations. Ahern and Sosyura (2012) show firms actively manage information releases to increase the market value of the firm and benefit current shareholders.

Similarly for seemingly unrelated firms may receive a negative market reaction. This is plausible as investors have a finite amount of attention (Hirshleifer et. al, 2009) and resources

(Khanna et. al, 1994) would devote more attention to the firms that are generating news in the market. In the event of good news, in this context dividend initiations would draw investors away from other firms in a particular MSA as local investors tend to invest more in locally based firms (Barber and Odean, 2008). The investor' attention and capital that is being drawn away from companies without news would result in a decrease in the stock price. This line of reasoning provides the negative investor attention hypothesis:

H1b: Seemingly unrelated firms will experience an unfavorable market response when a firm located in an area with a high percentage of senior citizens makes a dividend initiation announcement.

3. Sample Selection and Descriptive Statistics

Our sample consists of firms that are present in both COMPUSTAT and CRSP from 1980 to 2011. Since we are utilizing the impact of positive news for firms in the context of dividend announcements, we restrict the positive news sample to only dividend initiations to accurately identify the other firms located in the same region. For MSA specific characteristics we consult the U.S. Census Bureau and U.S. Bureau of Labor Statistics

In classifying the location of the firms' headquarters, which is identified using the metropolitan statistical area of the firm, we follow a previous study in the locality literature (Almazan et. al, 2010). After determining the MSA for the company generating the positive news, we identify all other businesses located within the same MSA. Our data set excludes: (i) companies headquartered in Hawaii and Puerto Rico; (ii) dividend initiations and firm observations by financial firms (SIC codes 6000-6999) and regulated utilities (SIC codes 4900-4999); and (iii) firms with less than $10 million in total assets. If observations are missing either

debt or cash accounting values, we replace with a value of zero. We windsorize all variables used in the analysis at the bottom and top 1% to reduce the effect of outliers.

As we narrow our focus to firms with similar investor clientele, the choice of initiating dividends might be related to the industry of the firm. Therefore, we eliminate firms with correlated cash flows as we exclude all firm observations that are classified into the same two-digit SIC code as the company making the announcement. As unrelated news announcements for seemingly unrelated firms may influence their stock returns, so we remove all firms that announce their quarterly earnings and dividend announcements in the same month as the dividend initiation announcement. A final data screen we implement is the requirement that each dividend initiation possess at least 10 remaining firm observations in the same MSA. This screen is attributed to the findings of Hong et. al (2008) where a few firms located in a specific area can create a larger bias and increase in stock valuations by local investors. The final sample consists of 732 unique dividend initiation announcements with a total of 25,201 firm observations.

Previous geographic literature sheds light on the impact of the population of senior citizens within an MSA on a firm's dividend policies as shown by Becker et. al (2011). The population makeup and density within an MSA has a direct correlation in participation by those investors who reside in more sociable and active financial communities which has been documented by Brown et. al (2008). Therefore, we assign a binary variable that receives the value of one if the observation is located in the top quartile of the sample in terms of the percentage of senior citizens within a MSA. This data is collected from the U.S. Census Bureau and measured as the population estimates for each MSA by year. This senior citizen variable

allows us to capture the portion of stock returns explained by this particular group and if this group employs coarse thinking when evaluating securities

Table 1 provides the descriptive statistics for our entire sample. The mean cumulative abnormal return is 0.002 and there is a large variation around the mean (standard deviation of 0.073). This suggests that stock prices of firms in the MSA do not uniformly respond to dividend initiations similarly. Dividend paying companies comprise 55.8% of the whole sample and non-dividend paying companies the rest. Therefore, the data is evenly dispersed between the two types of businesses and our sample is not being dominated by a specific type of firm. Approximately, one-third of all the firm observations are located in the 20 most populous cities in the United States. The presence of observations from large cities allows for us to detect if explanatory power by the variable, but it will not dominate our findings. The *Senior_Dummy* variable is representative of the top quartile of the percentage of senior citizens within the sample, with a cut-off value of 12.8% of the population being 65 years of age or older.

4. Univariate Analysis

This section provides evidence that relates to cumulative abnormal returns experienced by seemingly unrelated firms in the same MSA as the firm that initiates dividends. Table 2 reports the examination of the cumulative abnormal return for the percentage of senior citizen quartiles.

In Panel A, the difference in *CAR* between the first (0.0008) and fourth (0.0044) quartiles based on senior population for the whole sample is -0.0036 and is highly significant. Not only is this negative value statistically significant, but also economically as it represents an increase in *CAR* of 80% above the mean CAR for the entire sample. The sub-sample for dividend paying observations provides a cumulative abnormal return difference between the bottom (-0.0020) and

top (0.0017) quartiles of -0.0037. This negative statistic also is economically important as it is representative of an 85% increase above the average. The non-dividend paying companies do not experience a difference between the senior citizen quartiles. These findings suggest differences in market reactions which can mostly be attributed to dividend paying firms.

Panel B addresses the notion that the number of firms in the MSA observation may be having an effect as discussed by Hong et al. (2008) where the dispersion of the number of firms in a particular location has the ability to influence stock prices. Thus, we break the sample into firm quartiles and then senior citizen quartiles. We do show a significant negative difference by senior citizen percentage for the second (-0.0052) and fourth quartiles (-0.0053) for the log of the number of firms. However, this effect is insignificant for MSAs with the fewest number of firms. Thus, our results are not driven by the limited number of firms in the MSA. This finding coupled with previous literature provides credence to control for the number of firms located in the MSA as the firm creating the positive news.

We find further evidence when we examine the observations from companies located within the 20 most populous cities in the United States and outside the populous cities are provided in Panel C. We observe a highly significant negative difference (-0.0073) between the first and fourth quartiles for firms located within the 20 most populous cities. But, do not find a statistical difference for firm observations located outside of the 20 cities. Collectively, these findings lend support to the positive investor attention hypothesis.

Large, well established firms are more likely to pay dividends to shareholders (Fama and French, 2001). We also examine the effect of senior citizens across size quartiles However, Panel D documents a notable negative difference, -0.0068, in equity reactions for the largest size quartile amongst the senior citizen quartiles. This evidence provides support for the idea that

local demographics of a firm may not incorporate news uniformly and have the ability to influence the stock price. This notion is supported by the findings in Panel E, as established companies with a low *Tobin's Q* are perceived by the market to be value stocks, not growth stocks. The lowest quartile of observations based upon *Tobin's Q* experiences a meaningful negative difference of -0.0109, between the first (0.0026) and fourth (0.0135) quartiles of senior citizens. These findings based on Tobin's Q are consistent with senior citizen preferences.

The univariate analyses have provided valuable insight into the composition of the data, such as firm observations located in the most populous cities need to be accounted for in later analyses. Furthermore, Table 2 provides the foundation for the concept that a particular group of investors may engage in coarse thinking and not incorporate the good news of a dividend initiation uniformly for all firms in the same location. Table 2 findings attribute this re-evaluation of stock with similar characteristics when a firm initiates a dividend. The above analysis has provided supporting evidence for the need to control for numerous factors in our regression analysis that are consistent with investing behavior of senior citizens, including dividend paying stocks, large firms, and companies that have a low Tobin's Q.

5. Regression Analysis

In order to test the hypotheses concerning the comovement of equity values for firms located within the same MSA, we examine the impact of good news for one firm on equity prices of other businesses within a close proximity. Our empirical methodology is closely related to other event study models that have been utilized in the dividend literature. Following these models we conduct an event study and calculate the value-weighted market adjusted returns of each firm observation in the sample. Using the abnormal returns from the event study as the dependent variable allows us to determine how seemingly unrelated firms' stock prices comove

when located within a MSA where one firm is producing good news; the movements in equity prices are captured by the cumulative abnormal returns (*CAR*) from the event study.

We calculate the cumulative abnormal returns for firms located within the same MSA as a firm making positive news announcements using standard event study methodology. The estimation window for the event study is -5 to +5 relative to the corresponding day of good news (dividend initiation announcement date). We employ an extended window to control for information leakage pre-announcement and to capture the full impact of the announcement. The independent variable in this analysis is utilized to disentangle and identify the channels in which one firm's good news causes comovement in stock prices for seemingly unrelated firms in the same geographic proximity.

Macroeconomic factors have the ability to influence a firm's prospects and market expectations. These shocks to firms located within a particular geographic region may drive comovements in stock valuations (Korniotis and Kumar, 2012). Thus, all firms within a close proximity to each experience the same economic environment, resulting in what has been termed the multiplier effect (Dougal et. al, 2012). To control for this variation within the model and to be certain that macroeconomic factors are not influencing our findings we use the state unemployment rate as a proxy (Korniotis and Kumar, 2012). The $State\ Unemployment\ Rate_{i,}$ is a continuous variable that measures the unemployment rate within the firm's state during the year of observation; this variable controls for macroeconomic shocks of firms within the same location.

Previous economic geography literature shows the importance in controlling for the effects of if a firm happens to be located in one of the 20 most populous cities during the sample period (Coval and Moskowitz, 2001; Malloy, 2005). Coval and Moskowitz (2001) document

that investors located in the most populous cities tend to hold a higher percentage of their assets locally. The difference in the population of the area in which a firm is located also has a direct effect on the analysts covering the companies in a particular area (Malloy, 2005). Therefore, we collect the 20 most populated cities in the country from the U.S. Census Bureau from 1980 – 2011; there are minor changes to this variable in the temporal setting as cities become less and more populated. For the time period of our sample, there were a total of 25 different cities that made the list; therefore, we implement a dummy variable that is time invariant for all firm observations located within these 25 cities.

To control for a stock's previous momentum we calculate the previous quarter's return for the stock; stock momentum has been documented to have an impact on the future equity price (Jegadeesh and Titman, 1993; Grinblatt et. al, 1995). The univariate analysis conducted in Section 4 provided evidence for the need to control for total sales of the firms, as senior citizens market reaction was different across the quartile of largest firms. We also control for the number of firms by dividend announcement so that this variable is not driving our findings (Hong et. al, 2008). Finally, we account for the firm's *Tobin's Q* as Table 2 provides supporting evidence that senior citizens distinguish the differences between firms with low market-to-book ratios. For a full description of variables employed throughout this paper please consult the Appendix I.

The econometric issues that need to be closely monitored are the correlations between observations and the clustering of observations as well as the endogeneity of firms within the same industry. To address the first concern, we employ two-way clustered standard errors for MSA and declaration date. The differences in the time period of when the initiation announcement is made are controlled for by using year fixed effects.

Using the regression methodology described above, our goal is to disentangle the above potential drivers of any changes in the stock returns. The results for the regression analysis on the entire sample as a whole are reported in Table 3, where the dependent variable is the cumulative abnormal return for the observation firm for the window of (-5, +5) surrounding the dividend initiation announcement.

We find strong evidence as the *Senior Dummy* variable is significantly positive at the 5% level, indicating that when a firm is located within a MSA where a dividend initiation occurs that if it is located in an area with a high proportion of the citizens over the age of 64 that it receives a favorable market reaction of 40 basis points to the equity price. This shock that can be attributed is not only significant but economically important as it is 100% greater than the mean *CAR* for the whole sample.

The finding that firms located in an area with a high percentage of senior citizens receive a positive change in equity prices leads us to disentangle whether the variable representing the high proportion of senior citizens are acting rationally by incorporating this announcement as good news for all firms within the MSA or coarse thinking based on if the group of firms pay dividend or not. The results from running the regression the sample of dividend paying firms is located in Table 3 column 2, while the regression outcome from the non-dividend paying firm observations are reported in column 3. The *Senior Dummy* variable is persistent, 0.004, and increases in significance when the model is run over the dividend paying sample of the data, but becomes insignificant for non-dividend payer, 0.003. Therefore, the dividend paying firms were driving the significance for this variable found in the previous regression. This result supports the positive investor attention hypothesis for dividend payers in areas with a high percentage of senior citizens.

These findings are critical for the understanding of the channels that are driving the cumulative abnormal returns for seemingly non-related firms located within the same MSA as a company beginning to pay dividends. This understanding when coupled with the median value of -0.001 and mean value of 0.002 for the whole sample, give credence to the notion that dividend initiations are not reflected in the market as a whole for positive or negative shocks to all the firms in the MSA. The fact that dividend paying firms located within a location with a high percentage of senior citizens receive a positive shock provides evidence for hypothesis 1a and the halo effect concerning investors engaging in coarse thinking.

Table 4 reports fixed effects regression analyses as we control for MSAs, two-digit SIC industries, and specific firm effects on our results. To address the potential effects for these different avenues we implement fixed effects for years, firms, industries and MSAs. The binary variable for senior citizen population is significantly positive in the first three regressions for the whole sample suggesting that it is not the MSA or industry in which the firm is located within driving the findings. When analyzing the fixed effects models for the dividend paying sample, *Senior_Dummy* continues to significant and positive for all models. This variable is insignificant for the sample of non-dividend paying companies. This lends further support to that senior citizens in an area has on the equity prices and is not consistent with effects driven by MSAs, SIC codes, or specific firms.

The *State Unemployment Rate* continues to be insignificant in all of the analyses, evidence that the underlying macroeconomic factors are not driving the findings. As in previous regressions *Stock Return* is significant and positive in each model, suggesting that momentum has a significant impact on the stock returns for all firms.

Previous studies document the effect of a stock's momentum on future stock returns (Jegadeesh and Titman, 1993). The *Stock Return* variable is also highly significant and positive with a value of 0.112 for the whole sample. This coefficient can be interpreted as a firm that was performing well the quarter prior to another firm's dividend initiation announcement receives an even larger benefit; this variable is a momentum proxy. *Sales* is also significant but possesses a negative sign, -0.001 for the whole sample. This would seem to be counter intuitive as a firm with higher sales typically should be a sign that the firm is doing well.

Stock Return is also highly significant and positive with values of 0.106 and 0.115 for dividend payers and non-dividend paying firms, respectively. This suggests that the momentum of the returns for the previous quarter have lasting implications on the public perception of the firm. *Sales* has now become insignificant lending to a possible understanding that the variable may have been a proxy for dividend payers in the whole sample.

6. Robustness Checks

The first robustness procedure we engage in is to incorporate the Text-based Network Industry Classifications (TNIC) data (Hoberg and Phillips, 2010a, 2010b). We screen the data to exclude all firms located in the same two-digit SIC code and firms that are closely related by evidence from the TNIC pair-wise classification. As these data measures are only available for the period of 1996 to 2008, our sample is reduced even further. Our total sample for this analysis is 9,434 observations. Table 5 documents a positive co-movement in equity prices for the whole sample with a significant value of 0.0005 for *Senior_Dummy*. Upon sub-sampling the data by whether a firm pays dividends, we document a positive shock of 0.007 to their equity valuations, while non-dividend payers do not experience a significant market reaction. Table 6 provides further proof that dividend paying firms located in areas with a high percentage of senior citizens

experience a positive co-movement in the stock price of 0.007, 0.007, and 0.008, which are all significant at the 0.01 level. The only regression where the *Senior_Dummy* becomes insignificant is for the firm fixed effects regression.

The second set of robustness checks we employ to test our hypotheses is to implement mean regressions. This is accomplished through two different avenues. The first is averaging the variables across each individual dividend announcement and treating this as a single observation. The other avenue is averaging all the observations by the MSA of the dividend initiating firm, resulting in a single observation for each of the MSAs represented in the data.

The first mean regression apply is attributed to each unique dividend announcement. This results in the sample size decreasing from 25,201 total observations to 732 dividend initiation observations. The results for the mean regressions of dividend initiation announcements are given in Table 7. The regressions for the dividend paying firms yields similar results to the previous findings where the senior citizen percentage of the MSA impact the equity valuations of a company and results in significant coefficients of 0.004 and 0.005, respectively. For the non-dividend paying sample the senior citizen variable becomes insignificant, as previously documented. These results are consistent with the positive investor attention hypothesis as regions with a high percentage of senior citizens reward dividend payers in the event of a dividend initiation by a firm within the same MSA.

The second mean regression we utilize is a set of regressions based on the average for all variables across a particular MSA is found in Table 8. The sample yields only 24 observations and three regressions as the construction of the analysis does not allow for any type of fixed effects. The clustering of standard errors is not permissible; therefore we apply the correction to the standard errors that is consistent with White's standard errors. The limited sample size

continues to support the prior evidence that dividend paying companies within a geographic location with a high percentage of senior citizens experience a significantly positive comovement in stock prices with a significant value of 0.011, when another firm initiates a dividend policy. This effect is not experienced uniformly across the entire sample.

In Tables 9 and 10, we provide the regression analyses that replicate our initial analysis on the sub-section of firms that have been public for at least 10 years. It is important to disentangle the effects of firms choosing to establish themselves in areas where other firms are growing and innovating as well. Therefore, the unobservable characteristics of a firm's decision where to locate become less important over time.

The evidence in Table 9 is consistent with the previous findings as cumulative abnormal return is positively significant not only for the dividend paying sample, but the whole sample with equity movements of 40 and 40 basis points, respectively. In Table 10, with the addition of various fixed effects does not change the interpretation of our previous findings. These findings are persistent and lend evidence to the positive investor attention hypothesis where dividend payers' equity prices are impacted by another firm's news between.

7. Conclusion

Previous literature has explored the comovement of stock returns and their determinants. However, the ability of one firm's news announcements to drive comovements between equity valuations is important, but the literature provides limited evidence on the implications of one firm's actions on other firms. We control for firms with correlated cash flows and the geographical location of firms to address this issue. This allows us to analyze the direct relationship between the news generated by one firm on unrelated firms with the common characteristic being shared by the firms is similarities in their investor base.

The findings in this paper reveal novel evidence on the comovement of stock returns. Specifically, we find evidence that capital markets react favorably to seemingly unrelated firms in an MSA with a high percentage of senior citizens when a firm makes a dividend initiation announcement. This finding is prevalent for dividend paying firms and insignificant for non-dividend paying firms providing evidence of the Positive Investor Direction Hypothesis. The persistency of this outcome is robust to numerous measures including several mean regression models. These results support that directional coarse thinking senior investors are rewarding dividend paying firms in the same MSA through attributing positive news to all dividend paying firms in the same MSA.

Our findings contribute to the literature by providing insight on the economic impact that a firm's location demographic has on stock returns. We also provide a channel in which one firm's news announcement can affect those located centrally to them without any apparent affiliation. These findings suggest that regional demographics play an important role in comovement of stock prices.

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Appendix I

Variable Description

Variable	*Definition*
AGE	The age of the firm in years is measured as the number of years the firm is reported in the Compustat Fundamentals Annual.
CAR	The market adjusted value-weighted cumulative abnormal return for the window of -5 days to +5 days surrounding the dividend initiation announcement.
Cash/TA	Measure the cash and short-term securities of the firm. This variable is CHEQ (COMPUSTAT), which is the cash and short-term investments. It is then adjusted by the total assets of the firm (ATQ)
EBITDA/TA	Measured as the operating income before depreciation (OIBDPQ) and adjusted by the total assets of the firm (ATQ).
Log(# of Firms)	Measured as the log (# firms). This variable requires that at least 10 firms per dividend initiation are included in the final sample.
Log(Population)	Measured as the log (population estimate), this population estimate is obtained from the U.S. Census Bureau. This variable is observation specific for year and MSA.
Payer	Binary variable that takes the value of one if the firm within the sample is a dividend payer the quarter prior to the dividend announcement, zero otherwise.
Sales	Measured as the log (1+SALEQ), where SALEQ is the COMPUSTAT variable for sales/turnover (net) and has been adjusted to 1990 dollars.
Senior	The percentage of the population of the MSA that is over the age of 64, this variable was obtained from the U.S. Census Bureau.
Senior Dummy	Binary variable that takes the value of one if the firm is located within the highest quartile in terms of persons over 65 compared to the overall population of the MSA, zero otherwise.
Size	Measured as the log (1+ATQ), where ATQ is the COMPUSTAT variable for total assets and has been adjusted to 1990 dollars.
State Unemployment Rate	The state unemployment rate for the firm observation in the sample by year; obtained from the U.S. Bureau of Labor Statistics.
Stock Return	This is the firm's previous quarter returns as measured by the monthly CRSP file.
Tobin's Q	Derived as (ATQ – CEQQ + absolute value (PRCCQ*CSHOQ))/ATQ. Where ATQ is the total assets of the firm, CEQQ is the total common/ordinary equity, PRCCQ is the closing price of the firm's stock at the end of the quarter, and CSHOQ is the firm's common shares outstanding.
Top 20 City Dummy	Binary variable that takes the value of one if the firm is located within one of the 20 most populous cities as measured by the U.S. Census Bureau from 1980-2011, resulting in a total of 25 different cities.
Total Debt/TA	This variable captures both short and long-term debt of the firm. It is measured by adding debt in current liabilities (DLCQ) and long-term debt (DLTTQ); then it is adjusted by the total assets of the firm (ATQ).

Table 1 – Descriptive Statistics

Descriptive statistics for all of the variables included in the analysis throughout the article using the dividend initiation data for all other firms located in an MSA as the announcement. The time period for the sample is 1980 to 2011 and results in a total of 732 dividend initiations after the data screens. For a description of each of the variables please consult the Appendix located at the end of this article.

Variable	***n***	**Mean**	**S.D.**	**Min**	**0.25**	**Median**	**0.75**	**Max**
AGE	25,201	35.973	15.676	3	23	35	49	63
CAR	25,201	0.002	0.073	-0.203	-0.037	-0.001	0.037	0.255
Cash/TA	25,201	0.119	0.149	0	0.02	0.059	0.158	0.728
EBITDA/TA	25,201	0.037	0.029	-0.051	0.021	0.036	0.051	0.13
Log (# of Firms)	25,201	3.772	0.669	2.398	3.219	3.871	4.369	4.691
Log (Population)	25,201	16.36	0.729	14.667	15.777	16.632	17.08	17.21
Payer	25,201	0.558	0.497	0	0	1	1	1
Return	25,201	0.05	0.21	-0.429	-0.076	0.033	0.15	0.842
Sales	25,201	4.842	1.895	0.824	3.455	4.717	6.193	9.511
Senior	25,201	0.117	0.015	0.077	0.108	0.124	0.128	0.141
Senior_Dummy	25,201	0.251	0.433	0	0	0	1	1
Size	25,201	6.086	1.995	2.553	4.575	5.881	7.472	11.138
State Unemployment Rate	25,201	0.064	0.017	0.032	0.05	0.062	0.075	0.117
Tobin's Q	25,201	1.634	0.929	0.676	1.057	1.34	1.85	5.99
Top 20 City_Dummy	25,201	0.349	0.477	0	0	0	1	1
Total Debt/TA	25,201	0.236	0.186	0	0.084	0.217	0.347	0.824

Table 2 - Univariate statistics by senior population quartiles

Univariate descriptions considering the cumulative abnormal returns of the window (-5, +5). Panel A reports the mean CARs of the entire sample, dividend payers, and non-dividend payers of the 25,363 observations by quartile. Panel B reports the CARs by senior population estimate quartiles and log (# of firms) quartiles. Panel C reports the CARs by senior population estimate quartiles for observations located in the top 20 cities and observations located outside of the top 20 cities. Panel D reports the CARs by senior population estimate quartiles and size quartiles. Panel E reports the CARs by senior population estimate quartiles and Tobin's Q quartiles. Variable descriptions can be found in the appendix. **, * and + stand for statistical significance at the 1%, 5% and 10% level, respectively.

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Panel A

	Senior Population Quartiles				
	1	2	3	4	1-4
Whole Sample	0.0008	0.0006	0.0018	0.0044	-0.0036**
Dividend Payers	-0.0020	-0.0002	0.0018	0.0017	-0.0037*
Non-Dividend payers	0.0045	0.0016	0.0040	0.0057	-0.0012

Panel B

	Senior Population Quartiles				
Log (# of firms) Quartiles	1	2	3	4	1-4
1 (Lowest)	0.0022	-0.0019	0.0017	0.0020	0.0003
2	0.0010	-0.0002	0.0028	0.0062	-0.0052*
3	-0.0002	0.0013	0.0065	0.0039	-0.0042
4	-0.0000	0.0031	-0.0035	0.0053	-0.0053+

Panel C

	Senior Population Quartiles				
	1	2	3	4	1-4
Outside Top 20 City	0.0035	0.0004	0.0021	0.0045	-0.0011
Top 20 City	-0.0033	-0.0004	0.0018	0.0040	-0.0073**

Panel D

	Senior Population Quartiles				
Size Quartiles	1	2	3	4	1-4
1 (Lowest)	0.0033	0.0066	0.0021	0.0067	-0.0035
2	0.0020	-0.0004	0.0032	0.0029	-0.0009
3	0.0006	-0.0007	0.0033	0.0038	-0.0032
4	-0.0027	-0.0032	-0.0012	0.0041	-0.0068**

Panel E

	Senior Population Quartiles				
Tobin's Q	1	2	3	4	1-4
1 (Lowest)	0.0026	0.0062	0.0044	0.0135	-0.0109**
2	0.0016	-0.0012	0.0014	0.0024	-0.0008
3	-0.0023	0.0007	0.0003	0.0014	-0.0036
4	0.0011	-0.0034	0.0012	0.0002	0.0008

Table 3 – Regression analysis

This table provides the regression analysis for the entire sample with the dependent variable being CAR (-5, +5). Below are the results for the regression run on the entire sample (Column 1), dividend paying firms within the data (Column 2) and non-paying dividend firms within the sample (Column 3). These regressions are representative of the time period of 1980 to 2011. The standard errors have been two-way clustered by MSA and Date of the announcement. Variable definitions are in Appendix I. *P*-values are reported in the parentheses underneath the coefficient estimates. **, * and + stand for statistical significance at the 1%, 5% and 10% levels, respectively.

	Whole Sample	Dividend Payers	Non-Dividend Payers
	CAR	*CAR*	*CAR*
Senior Dummy	0.004+	0.004*	0.003
	(0.070)	(0.031)	(0.344)
State Unemployment Rate	0.039	0.001	0.077
	(0.554)	(0.989)	(0.466)
Cash/TA	-0.002	0.002	-0.006
	(0.581)	(0.584)	(0.353)
EBITDA/TA	-0.026	-0.032	-0.020
	(0.271)	(0.134)	(0.636)
Log(# of Firms)	0.002	0.003	0.000
	(0.356)	(0.163)	(0.836)
Log(Population)	0.000	-0.001	0.002
	(0.813)	(0.514)	(0.378)
Sales	-0.001**	-0.001	-0.000
	(0.001)	(0.186)	(0.110)
Stock Return	0.112**	0.106**	0.115**
	(0.000)	(0.000)	(0.000)
Tobin's Q	-0.000	-0.000	0.000
	(0.969)	(0.728)	(0.809)
Top 20 City Dummy	-0.001	-0.002+	0.000
	(0.286)	(0.066)	(0.967)
Total Debt/TA	-0.002	-0.003	-0.003
	(0.343)	(0.506)	(0.541)
constant	-0.019	0.030	-0.035
	(0.513)	(0.189)	(0.234)
Year Fixed Effects	Yes	Yes	Yes
N	25,201	14,065	11,136
r^2	0.107	0.101	0.113

Table 4 – Fixed effects regression analysis for the total sample

This table provides the regression analysis for the entire sample with the dependent variable being CAR (-5, +5). These regressions are representative of the time period of 1980 to 2011. The robust standard errors have been clustered by MSA. Variable definitions are in Appendix I. *P*-values are reported in the parentheses underneath the coefficient estimates. **, * and + stand for statistical significance at the 1%, 5% and 10% levels, respectively.

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	Whole Sample				**Dividend Paying Sample**				Non-Dividend Paying Sample			
Senior Dummy	0.004* (0.019)	0.005** (0.006)	0.004* (0.015)	0.004+ (0.071)	**0.004**** **(0.001)**	**0.006**** **(0.000)**	**0.005**** **(0.002)**	**0.005**** **(0.001)**	0.003 (0.301)	0.003 (0.327)	0.004 (0.280)	0.003 (0.563)
State Rate	0.039 (0.419)	0.096+ (0.092)	0.049 (0.320)	0.026 (0.703)	**0.001** **(0.985)**	**0.037** **(0.509)**	**0.016** **(0.764)**	**-0.005** **(0.956)**	0.077 (0.398)	0.151 (0.133)	0.091 (0.327)	0.144 (0.219)
Cash/TA	-0.002 (0.578)	-0.003 (0.457)	-0.003 (0.410)	-0.001 (0.879)	**0.002** **(0.361)**	**0.002** **(0.474)**	**0.002** **(0.554)**	**0.007** **(0.129)**	-0.006 (0.371)	-0.007 (0.332)	-0.006 (0.375)	-0.006 (0.595)
Ebitda/TA	-0.026 (0.448)	-0.026 (0.439)	-0.034 (0.309)	-0.041 (0.369)	**-0.032** **(0.114)**	**-0.033** **(0.103)**	**-0.032** **(0.150)**	**-0.021** **(0.517)**	-0.020 (0.685)	-0.022 (0.647)	-0.037 (0.430)	-0.049 (0.481)
Log(# of firms)	0.002 (0.355)	0.000 (0.881)	0.002 (0.258)	-0.000 (0.871)	**0.003*** **(0.026)**	**0.002** **(0.357)**	**0.002*** **(0.022)**	**0.001** **(0.723)**	0.000 (0.864)	-0.001 (0.738)	0.001 (0.671)	-0.001 (0.788)
Log (pop.)	0.000 (0.824)	0.003 (0.660)	-0.000 (0.958)	0.000 (0.999)	**-0.001** **(0.382)**	**0.001** **(0.919)**	**-0.001** **(0.408)**	**0.001** **(0.881)**	0.002 (0.456)	0.007 (0.532)	0.001 (0.720)	-0.010 (0.603)
Sales	-0.001** (0.004)	-0.001** (0.002)	-0.000 (0.123)	-0.001 (0.349)	**-0.001** **(0.224)**	**-0.001** **(0.157)**	**-0.000** **(0.601)**	**-0.001** **(0.519)**	-0.000 (0.240)	-0.000 (0.352)	-0.000 (0.806)	-0.001 (0.295)
Stock Return	0.112** (0.000)	0.112** (0.000)	0.112** (0.000)	0.112** (0.000)	**0.106**** **(0.000)**	**0.106**** **(0.000)**	**0.106**** **(0.000)**	**0.106**** **(0.000)**	0.115** (0.000)	0.115** (0.000)	0.115** (0.000)	0.115** (0.000)
Tobin's Q	-0.000 (0.969)	-0.000 (0.935)	-0.000 (0.984)	0.000 (0.941)	**-0.000** **(0.581)**	**-0.000** **(0.551)**	**-0.000** **(0.477)**	**-0.000** **(0.663)**	0.000 (0.815)	0.000 (0.761)	0.000 (0.786)	0.001 (0.752)
Top 20 City Dummy	-0.001 (0.390)	-0.001 (0.371)	-0.001 (0.220)	-0.138** (0.000)	**-0.002+** **(0.076)**	**-0.001+** **(0.071)**	**-0.002** **(0.226)**	**0.070**** **(0.001)**	0.000 (0.971)	0.000 (0.980)	-0.001 (0.712)	-0.155** (0.002)
Debt/TA	-0.002 (0.218)	-0.003 (0.120)	-0.003+ (0.098)	0.002 (0.396)	**-0.003** **(0.471)**	**-0.003** **(0.452)**	**-0.004** **(0.280)**	**0.004** **(0.432)**	-0.003 (0.430)	-0.004 (0.212)	-0.002 (0.571)	0.005 (0.395)
Year F.E.	Yes	Yes	Yes	Yes	**Yes**	**Yes**	**Yes**	**Yes**	Yes	Yes	Yes	Yes
MSA F.E.	No	Yes	No	No	**No**	**Yes**	**No**	**No**	No	Yes	No	No
SIC F.E.	No	No	Yes	No	**No**	**No**	**Yes**	**No**	No	No	Yes	No
Firm F.E.	No	No	No	Yes	**No**	**No**	**No**	**Yes**	No	No	No	Yes
N	25,201	25,201	25,201	25,201	**14,065**	**14,065**	**14,065**	**14,065**	11,136	11,136	11,136	11,136
r^2	0.107	0.109	0.109	0.175	**0.101**	**0.103**	**0.105**	**0.221**	0.113	0.116	0.118	0.206

Table 5 – Regression analysis including Hoberg-Phillips TNIC screens

This table provides the regression analysis for the entire sample with the dependent variable being CAR (-5, +5). Below are the results for the regression run on the entire sample (Column 1), dividend paying firms within the data (Column 2) and non-paying dividend firms within the sample (Column 3). These regressions are representative of the time period of 1996 to 2008 and exclude firm observations located in the same two-digit SIC industry and are found in the closeness measure from Hoberg and Phillips known as the Text-based Network Industry Classifications. The robust standard errors have been clustered by MSA. Variable definitions are in Appendix I. *P*-values are reported in the parentheses underneath the coefficient estimates. **, * and + stand for statistical significance at the 1%, 5% and 10% levels, respectively.

	Whole Sample *CAR*	Dividend Payers *CAR*	Non-Dividend Payers *CAR*
Senior Dummy	0.005*	0.007**	0.002
	(0.049)	(0.000)	(0.679)
State Unemployment Rate	0.449*	0.338	0.525*
	(0.027)	(0.144)	(0.030)
Cash/TA	0.001	0.007	-0.003
	(0.783)	(0.315)	(0.655)
EBITDA/TA	-0.013	-0.010	-0.022
	(0.785)	(0.786)	(0.749)
Log(# of Firms)	-0.003	0.003	-0.008+
	(0.426)	(0.407)	(0.062)
Log(Population)	0.006+	-0.000	0.012*
	(0.081)	(0.909)	(0.012)
Sales	-0.000	-0.000	-0.000
	(0.436)	(0.267)	(0.752)
Stock Return	0.117**	0.125**	0.113**
	(0.000)	(0.000)	(0.000)
Tobin's Q	-0.000	-0.001	-0.000
	(0.599)	(0.505)	(0.746)
Top 20 City Dummy	-0.001	-0.003+	0.000
	(0.385)	(0.056)	(0.994)
Total Debt/TA	-0.003	-0.006	-0.000
	(0.588)	(0.516)	(0.948)
constant	-0.022*	-0.024+	-0.017
	(0.044)	(0.064)	(0.110)
Year Fixed Effects	Yes	Yes	Yes
N	9,434	4,829	4,605
r^2	0.119	0.141	0.112

Table 6 – Fixed effects regression analysis for the total sample including Hoberg-Phillips TNIC screens

This table provides the regression analysis for the entire sample with the dependent variable being CAR (-5, +5). These regressions are representative of the time period of 1996 to 2008 and exclude firm observations located in the same two-digit SIC industry and are found in the closeness measure from Hoberg and Phillips known as the Text-based Network Industry Classifications. The robust standard errors have been clustered by MSA. Variable definitions are in Appendix I. *P*-values are reported in the parentheses underneath the coefficient estimates. **, * and + stand for statistical significance at the 1%, 5% and 10% levels, respectively.

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	Whole Sample				**Dividend Paying Sample**				Non-Dividend Paying Sample			
Senior Dummy	0.005* (0.049)	0.007** (0.003)	0.006* (0.025)	0.004 (0.176)	**0.007**** **(0.000)**	**0.007**** **(0.009)**	**0.008**** **(0.001)**	**0.004** **(0.233)**	0.002 (0.679)	0.004 (0.235)	0.003 (0.524)	0.006 (0.290)
State Rate	0.449* (0.027)	0.591** (0.003)	0.459* (0.041)	0.710* (0.016)	**0.338** **(0.144)**	**0.475*** **(0.032)**	**0.388** **(0.113)**	**0.635*** **(0.023)**	0.525* (0.030)	0.660* (0.010)	0.528+ (0.052)	0.791+ (0.100)
Cash/TA	0.001 (0.783)	0.001 (0.913)	0.001 (0.883)	0.005 (0.585)	**0.007** **(0.315)**	**0.006** **(0.400)**	**0.002** **(0.841)**	**0.010** **(0.320)**	-0.003 (0.655)	-0.003 (0.656)	0.002 (0.692)	0.006 (0.495)
Ebitda/TA	-0.013 (0.785)	-0.010 (0.829)	-0.011 (0.799)	-0.091 (0.308)	**-0.010** **(0.786)**	**-0.009** **(0.814)**	**-0.013** **(0.708)**	**0.084+** **(0.087)**	-0.022 (0.749)	-0.022 (0.743)	-0.029 (0.699)	-0.139 (0.333)
Log(# of firms)	-0.003 (0.426)	-0.006 (0.201)	-0.003 (0.443)	-0.008+ (0.070)	**0.003** **(0.407)**	**0.002** **(0.710)**	**0.003** **(0.444)**	**0.001** **(0.888)**	-0.008+ (0.062)	-0.012* (0.018)	-0.008+ (0.053)	-0.013** (0.005)
Log (pop.)	0.006+ (0.081)	-0.033 (0.614)	0.005 (0.125)	0.006 (0.930)	**-0.000** **(0.909)**	**0.000** **(0.997)**	**-0.001** **(0.770)**	**0.066** **(0.135)**	0.012* (0.012)	-0.075 (0.255)	0.010* (0.016)	-0.057 (0.634)
Sales	-0.000 (0.436)	-0.000 (0.451)	-0.000 (0.758)	0.000 (0.899)	**-0.000** **(0.267)**	**-0.000** **(0.254)**	**-0.000** **(0.383)**	**-0.004** **(0.208)**	-0.000 (0.752)	-0.000 (0.892)	0.000 (0.539)	-0.001 (0.765)
Stock Return	0.117** (0.000)	0.117** (0.000)	0.117** (0.000)	0.116** (0.000)	**0.125**** **(0.000)**	**0.126**** **(0.000)**	**0.125**** **(0.000)**	**0.121**** **(0.000)**	0.113** (0.000)	0.113** (0.000)	0.113** (0.000)	0.114** (0.000)
Tobin's Q	-0.000 (0.599)	-0.000 (0.624)	-0.001 (0.450)	-0.002 (0.477)	**-0.001** **(0.505)**	**-0.001** **(0.431)**	**-0.001** **(0.393)**	**-0.003*** **(0.019)**	-0.000 (0.746)	-0.000 (0.953)	-0.001 (0.623)	-0.002 (0.702)
Top 20 City Dummy	-0.001 (0.385)	-0.001 (0.295)	-0.001 (0.512)	-0.049 (0.768)	**-0.003+** **(0.056)**	**-0.002+** **(0.055)**	**-0.002** **(0.195)**	**-0.029** **(0.782)**	0.000 (0.994)	0.000 (0.944)	0.000 (0.936)	-0.102** (0.002)
Debt/TA	-0.003 (0.588)	-0.003 (0.517)	-0.003 (0.620)	-0.013 (0.349)	**-0.006** **(0.516)**	**-0.006** **(0.477)**	**-0.003** **(0.692)**	**0.005** **(0.748)**	-0.000 (0.948)	-0.001 (0.878)	-0.000 (0.958)	-0.022 (0.284)
Year F.E.	Yes	Yes	Yes	Yes	**Yes**	**Yes**	**Yes**	**Yes**	Yes	Yes	Yes	Yes
MSA F.E.	No	Yes	No	No	**No**	**Yes**	**No**	**No**	No	Yes	No	No
SIC F.E.	No	No	Yes	No	**No**	**No**	**Yes**	**No**	No	No	Yes	No
Firm F.E.	No	No	No	Yes	**No**	**No**	**No**	**Yes**	No	No	No	Yes
N	9,434	9,434	9,434	9,434	**4,829**	**4,829**	**4,829**	**4,829**	4,605	4,605	4,605	4,605
r^2	0.119	0.122	0.126	0.232	**0.141**	**0.144**	**0.154**	**0.312**	0.112	0.120	0.124	0.257

Table 7 – Announcement mean regression analysis with fixed effects

This table provides the regression analysis for the entire sample by MSA mean for each announcement with the dependent variable being CAR (-5, +5). Below are the results for the mean regression run on the entire sample (Columns 1 and 2), dividend paying firms within the data (Columns 3 and 4) and non-paying dividend firms within the sample (Columns 5 and 6).These regressions are representative of the time period of 1980 to 2011. The standard errors have been two-way clustered by MSA and Date of the announcement. Variable definitions are in Appendix I. *P*-values are reported in the parentheses underneath the coefficient estimates. **, * and + stand for statistical significance at the 1%, 5% and 10% levels, respectively.

	Whole Sample *CAR*	Whole Sample *CAR*	Dividend Payers *CAR*	Dividend Payers *CAR*	Non-Payers *CAR*	Non-Payers *CAR*
Senior Dummy	0.003	0.004+	0.004+	0.005+	0.002	0.003
	(0.194)	(0.073)	(0.074)	(0.068)	(0.543)	(0.481)
State Unemployment Rate	-0.029	0.020	-0.008	0.040	0.058	0.100
	(0.733)	(0.806)	(0.936)	(0.679)	(0.683)	(0.526)
Cash/TA	0.004	-0.030	-0.005	-0.009	-0.004	-0.028
	(0.899)	(0.458)	(0.844)	(0.765)	(0.866)	(0.230)
EBITDA/TA	0.052	-0.002	0.065	0.045	-0.034	-0.118
	(0.684)	(0.991)	(0.766)	(0.843)	(0.790)	(0.378)
Log(# of Firms)	0.002	0.002	0.001	0.001	0.003	0.003
	(0.244)	(0.450)	(0.522)	(0.817)	(0.269)	(0.349)
Log(Population)	-0.000	-0.001	0.001	0.002	-0.002	0.004
	(0.933)	(0.912)	(0.714)	(0.849)	(0.612)	(0.766)
Sales	-0.000	-0.000	0.001	0.001	-0.002	0.001
	(0.990)	(0.961)	(0.524)	(0.803)	(0.487)	(0.784)
Stock Return	0.079**	0.078**	0.083**	0.084**	0.085**	0.087**
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Tobin's Q	-0.002	-0.003	0.003	0.003	-0.003	-0.002
	(0.602)	(0.445)	(0.615)	(0.610)	(0.539)	(0.686)
Top 20 City Dummy	-0.006+	-0.018	-0.005	-0.002	-0.009+	-0.030*
	(0.100)	(0.364)	(0.124)	(0.892)	(0.063)	(0.020)
Total Debt/TA	0.019	-0.005	0.014	0.005	0.012	-0.013
	(0.458)	(0.855)	(0.414)	(0.807)	(0.681)	(0.648)
Constant	-0.019	-0.021	-0.061	-0.082	0.017	-0.097
	(0.671)	(0.860)	(0.152)	(0.553)	(0.707)	(0.645)
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
MSA Fixed Effects	No	Yes	No	Yes	No	Yes
N	732	732	732	732	730	730
r^2	0.229	0.262	0.209	0.227	0.192	0.244

Table 8 – MSA mean regression analysis

This table provides the regression analysis for the entire sample by MSA mean with the dependent variable being CAR (-5, +5). Below are the results for the MSA mean regression run on the entire sample (Column 1), dividend paying firms within the data (Column 2) and non-paying dividend firms within the sample (Column 3). These regressions are representative of the time period of 1980 to 2011. The reported errors have been adjusted to the specification consistent with White's robust standard errors. Variable definitions are in Appendix I. *P*-values are reported in the parentheses underneath the coefficient estimates. **, * and + stand for statistical significance at the 1%, 5% and 10% levels, respectively.

	Whole Sample	Dividend Payers	Non-Dividend Payers
	CAR	*CAR*	*CAR*
Senior Dummy	-0.009	0.011+	-0.009
	(0.147)	(0.072)	(0.351)
State Unemployment Rate	-0.552+	0.188	-0.909+
	(0.080)	(0.597)	(0.079)
EBITDA/TA	-1.150	0.286	0.941
	(0.142)	(0.339)	(0.366)
Sales	-0.002	0.004	-0.008
	(0.815)	(0.550)	(0.297)
Stock Return	0.106+	0.055	0.071
	(0.054)	(0.539)	(0.535)
Total Debt/TA	0.065	0.132*	0.044
	(0.267)	(0.049)	(0.539)
Constant	0.066	-0.083	0.045
	(0.223)	(0.213)	(0.231)
N	24	24	23
r^2	0.537	0.274	0.417

Table 9 – Regression analysis for firms 10 years or older

This table provides the regression analysis for the entire sample with the dependent variable being CAR (-5, +5). Below are the results for the regression run on the entire sample (Column 1), dividend paying firms within the data (Column 2) and non-paying dividend firms within the sample (Column 3). These regressions are representative of the time period of 1980 to 2011. The standard errors have been two-way clustered by MSA and Date of the announcement. Variable definitions are in Appendix I. *P*-values are reported in the parentheses underneath the coefficient estimates. **, * and + stand for statistical significance at the 1%, 5% and 10% levels, respectively.

	Whole Sample	Dividend Payers	Non-Dividend Payers
	CAR	*CAR*	*CAR*
Senior Dummy	0.004+	0.004*	0.003
	(0.086)	(0.045)	(0.343)
State Unemployment Rate	0.043	0.011	0.070
	(0.525)	(0.875)	(0.511)
Cash/TA	-0.003	0.002	-0.008
	(0.521)	(0.565)	(0.306)
EBITDA/TA	-0.034	-0.064**	-0.015
	(0.196)	(0.007)	(0.736)
Log(# of Firms)	0.002	0.003	0.001
	(0.218)	(0.107)	(0.655)
Log(Population)	-0.000	-0.002	0.002
	(0.923)	(0.355)	(0.525)
Sales	-0.001**	-0.001	-0.001+
	(0.003)	(0.181)	(0.065)
Stock Return	0.111**	0.105**	0.115**
	(0.000)	(0.000)	(0.000)
Tobin's Q	0.000	0.000	0.000
	(0.860)	(0.804)	(0.758)
Top 20 City Dummy	-0.001	-0.002+	-0.000
	(0.131)	(0.051)	(0.767)
Total Debt/TA	-0.004	-0.004	-0.004
	(0.202)	(0.355)	(0.357)
constant	0.007	0.037	-0.026
	(0.718)	(0.110)	(0.399)
Year Fixed Effects	Yes	Yes	Yes
N	24,292	13,600	10,692
r^2	0.105	0.099	0.112

Table 10 – Fixed effects regression analysis for sample of firms 10 years old or older

This table provides the regression analysis for the entire sample with the dependent variable being CAR (-5, +5). These regressions are representative of the time period of 1980 to 2011. The robust standard errors have been clustered by MSA. Variable definitions are in Appendix I. *P*-values are reported in the parentheses underneath the coefficient estimates. **, * and + stand for statistical significance at the 1%, 5% and 10% levels, respectively.

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	Whole Sample				**Dividend Paying Sample**				Non-Dividend Paying Sample			
Senior Dummy	0.004* (0.029)	0.005** (0.008)	0.004* (0.021)	0.004+ (0.051)	**0.004** **(0.003)**	**0.006** **(0.000)**	**0.005** **(0.004)**	**0.005** **(0.001)**	0.003 (0.298)	0.003 (0.316)	0.004 (0.250)	0.002 (0.595)
State Rate	0.043 (0.392)	0.105+ (0.086)	0.052 (0.308)	0.054 (0.441)	**0.011** **(0.849)**	**0.047** **(0.484)**	**0.028** **(0.628)**	**0.018** **(0.843)**	0.070 (0.446)	0.154 (0.125)	0.089 (0.340)	0.154 (0.197)
Cash/TA	-0.003 (0.535)	-0.004 (0.438)	-0.004 (0.391)	-0.002 (0.801)	**0.002** **(0.341)**	**0.001** **(0.453)**	**0.002** **(0.517)**	**0.008** **(0.122)**	-0.008 (0.345)	-0.008 (0.335)	-0.007 (0.357)	-0.009 (0.434)
Ebitda/TA	-0.034 (0.357)	-0.035 (0.346)	-0.043 (0.234)	-0.045 (0.344)	**-0.064** **(0.004)**	**-0.065** **(0.004)**	**-0.067** **(0.004)**	**-0.035** **(0.259)**	-0.015 (0.775)	-0.018 (0.728)	-0.033 (0.519)	-0.047 (0.487)
Log(# of firms)	0.002 (0.219)	0.001 (0.763)	0.002 (0.149)	0.000 (0.893)	**0.003** **(0.013)**	**0.003** **(0.310)**	**0.003** **(0.010)**	**0.002** **(0.609)**	0.001 (0.703)	-0.001 (0.847)	0.002 (0.514)	-0.000 (0.946)
Log (pop.)	-0.000 (0.929)	0.002 (0.723)	-0.001 (0.691)	-0.001 (0.919)	**-0.002** **(0.240)**	**0.000** **(0.942)**	**-0.001** **(0.269)**	**0.001** **(0.819)**	0.002 (0.587)	0.005 (0.619)	0.000 (0.994)	-0.010 (0.606)
Sales	-0.001** (0.005)	-0.001** (0.003)	-0.000 (0.123)	-0.001 (0.313)	**-0.001** **(0.219)**	**-0.001** **(0.148)**	**-0.000** **(0.640)**	**-0.001** **(0.395)**	-0.001+ (0.060)	-0.000 (0.140)	-0.000 (0.540)	-0.001 (0.256)
Stock Return	0.111** (0.000)	0.111** (0.000)	0.112** (0.000)	0.111** (0.000)	**0.105** **(0.000)**	**0.105** **(0.000)**	**0.105** **(0.000)**	**0.105** **(0.000)**	0.115** (0.000)	0.115** (0.000)	0.115** (0.000)	0.114** (0.000)
Tobin's Q	0.000 (0.873)	0.000 (0.895)	0.000 (0.851)	0.000 (0.857)	**0.000** **(0.731)**	**0.000** **(0.810)**	**0.000** **(0.762)**	**-0.000** **(0.850)**	0.000 (0.775)	0.001 (0.720)	0.000 (0.776)	0.001 (0.680)
Top 20 City Dummy	-0.001 (0.187)	-0.001 (0.107)	-0.002+ (0.083)	-0.037** (0.000)	**-0.002*** **(0.037)**	**-0.002*** **(0.028)**	**-0.002** **(0.164)**	**0.020*** **(0.044)**	-0.000 (0.789)	-0.001 (0.683)	-0.001 (0.499)	-0.138** (0.000)
Debt/TA	-0.004+ (0.093)	-0.004* (0.041)	-0.005* (0.028)	0.002 (0.394)	**-0.004** **(0.307)**	**-0.004** **(0.293)**	**-0.004** **(0.221)**	**0.004** **(0.315)**	-0.004 (0.226)	-0.005+ (0.100)	-0.004 (0.245)	0.003 (0.567)
Year F.E.	Yes	Yes	Yes	Yes	**Yes**	**Yes**	**Yes**	**Yes**	Yes	Yes	Yes	Yes
MSA F.E.	No	Yes	No	No	**No**	**Yes**	**No**	**No**	No	Yes	No	No
SIC F.E.	No	No	Yes	No	**No**	**No**	**Yes**	**No**	No	No	Yes	No
Firm F.E.	No	No	No	Yes	**No**	**No**	**No**	**Yes**	No	No	No	Yes
N	24,292	24,292	24,292	24,292	**13,600**	**13,600**	**13,600**	**13,600**	10,692	10,692	10,692	10,692
r^2	0.105	0.107	0.108	0.168	**0.099**	**0.101**	**0.104**	**0.213**	0.112	0.115	0.117	0.197