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

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Abstract

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Keywords: geography; demographics; comovement; payout policy; dividend clientele; behavioral finance

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Abstract

This study examines 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 geographic characteristics, dividend paying firms located in areas with a higher percentage of dividend clientele experience a positive comovement reaction when a seemingly unrelated firm within the same MSA announces a dividend initiation. The positive reactions are specifically for dividend paying firms, while non-dividend payers exhibit no significant response. These results are robust to numerous regression methods and alternative explanations. Collectively, these findings are consistent with the positive-investor-attention hypothesis, suggesting positive spillover effects from news announcements for other local firms in the presence of individual investor clientele.

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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; Pirinsky and Wang, 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.

A priori, it is not clear that positive news of a firm would affect stock prices of seemingly unrelated firms in absence of correlated cash flows or risks. It is possible that individual investors may not use these news announcements in assessing the value of unrelated firms, such that the effect of positive news is restricted to the equity value of the news creating firm and does not affect seemingly unrelated firms. Alternatively the news announcement may serve as an attention-grabbing event and result in positive spillover effects for seemingly unrelated firms amongst investor clientele. Individual investors have a documented tendency to invest in firms that are established locally (Coval and Moskowitz, 1999, 2001; Huberman, 2001; Hong, Kubik, and Stein, 2005, 2008). Limited resources (DellaVigna and Pollet, 2009) and "coarse thinking" (Massa and Zhang, 2009) may lead investors to place a greater value on a particular group of firms (e.g., dividend paying companies) based on their affiliation with the news generating firm (e.g., dividend initiation). Thus, a release of positive news, which attracts a local individual investor clientele (e.g., senior citizens), may cause the underlying clientele of investors to

favorably view non-news generating firms that are in the same group as the positive news-generating firm. This new association may lead to a spillover of positive news announcement, generating an increase in the stock prices of seemingly unrelated firms in the presence of a large investor clientele (positive-investor-attention hypothesis).

The positive news may be at the expense of seemingly unrelated firms without any news announcements. Specifically, firms compete for the investor attention (Hirshleifer, Lim, and Teoh, 2009) and firms with news announcements tend to capture considerable attention from individual investors (Barber and Odean, 2008). Limited resources confine the ability of individual investors to process relevant stock market information (DellaVigna and Pollet, 2009). In response, individual investors attempt to efficiently allocate their available resources and shift their focus to firms that are generating positive news in the market. This in turn may generate an adjustment in their portfolios: selling or not buying non-news generating firms while purchasing positive news generating firms in the same group. Thus, the shift in attention may generate an unfavorable market reaction for the seemingly unrelated firms (investor-distraction hypothesis).

We test the aforementioned 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 metropolitan statistical area (MSA). Specifically, we define observations as seemingly unrelated firms if the firms are located in the same MSA but are categorized in a different industry as the news creating firm. Prior studies have documented that dividend initiation announcements generate positive abnormal returns (Asquith and Mullins, 1983; Healy and Palupu, 1988; Michaely, Thaler, and Womack, 1995) and attract considerable investor attention (Barber and Odean, 2008). Thus, we employ dividend initiations as positive news for this study. By focusing on

dividend initiations, we are able to clearly identify the avenue in which a news generating firm influences stock prices of seemingly unrelated firms in the presence of a specific investor clientele for the underlying firms.

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). 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 should invest in the stocks of dividend paying companies located within the same MSA; thereby, forming a geographically segmented investor clientele. To ensure that our results are not driven by correlated cash flows of firms in the same industry, we exclude firms from the same industry grouping in the same MSA as the dividend initiating firm. This empirical design also allows us to assess the effect of news of a firm on other firms that do not have correlated cash flows, but share a similar investor clientele.

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-attention hypothesis as firms' equity prices are benefiting from an investor clientele of senior citizens, who incorporate the positive news into all dividend paying firms located in the area.

We take further steps to examine robustness of the findings. The results of the paper 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 sub-sample 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. We also examine the effect of investor concentration on our findings. As the hypotheses are implicitly built upon the irrational behavior of individual investors, the findings should be prominent in the presence of low institutional ownership. We investigate this notion by interacting the senior citizen variable with high and low institutional holding. Our results reveal that dividend paying firms in areas with high senior citizen concentration receive positive market reaction only if there is low institutional ownership.

We further examine alternative economic hypotheses that may explain our findings. First, the positive market reaction for dividend paying firms located within areas with a high percentage of senior citizens might be an effect that all dividend paying firms experience similar reactions. We are able to dispel this notion as seemingly unrelated firms located outside of the MSA of the initiating firm did not experience a significant shock to their equity prices. Second, the supply of dividend payers in the MSA at the time of the announcement may be the reason for the findings. Specifically, few dividend paying firms in an MSA may generate the findings of the paper if these firms are located in areas with high percentage of senior citizens. Upon introducing the number of dividend paying firms at the time of the dividend initiation in the MSA in the analysis the findings of the paper are unaffected. Third, the positive market reactions to

seemingly unrelated dividend paying firms may be attributed to the expectation of these firms to increase their own payout policy following the dividend initiation. However, dividend paying firms do not subsequently increase dividend payout following a firm initiating a dividend in the same MSA. Finally, seemingly unrelated dividend paying firms may experience an increase in their cash flows subsequent to the dividend initiation in the same MSA. We do not find supporting evidence for this hypothesis either. Collectively, these findings are not fully consistent with the alternative hypotheses and lend further support to the positive-investor attention hypothesis.

This paper relates to studies examining the comovement of stock returns. Pirinsky and Wang (2006) find that comovement of stock returns in an MSA cannot be fully explained by firm fundamentals. By reporting that high percentage of senior citizens influence market reactions to seemingly unrelated firms in the same MSA, the paper suggests regional investor clientele 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, Kubik, and Stein, 2008). The findings in this paper suggest that the ability of the demographic composition surrounding the firm to influence stock returns depends on the match between local investor clientele and firm characteristics.

Our paper is also 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, Hirshleifer, and Subrahmanyam, 1998; Dong, Hirshleifer, Richardson, and Teoh, 2006; Hirshleifer, Hou, Teoh, and Zhang, 2004; Hirshleifer,

Lim, and Teoh, 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 positive news generating firm. 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 the 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, Thaler, and Womack, 1995). 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

There has been substantial evidence of comovement of stock returns. Among others Barberis and Shleifer (2003), Barberis, Shleifer, and Wurgler (2005) and Kumar and Lee (2006) show that common economic factors cannot fully explain comovement in stock returns. One of

the channels that may generate comovement of stock returns is the collective behavior of an investor clientele (Antón and Polk, 2014). Specifically, investors that invest in a group of firms based on group characteristics, rather than individual firm characteristics, may generate correlated stock returns among the firms in the group.

Limited attention of investors may lead them to pay attention to group characteristics. Specifically, individual investors are not only limited by available resources (DellaVigna and Pollet, 2009), but also by the amount of attention that they can expend when evaluating firm' prospects (Hirshleifer, Lim, and Teoh, 2009). Limited attention leads investors to focus on group of firms of which they are aware (Barber and Odean, 2008). Furthermore, investor characteristics influence the group of firms that the limited attention will be directed towards (Grinblatt and Keloharju, 2001). Thus, investors are likely to focus on characteristics of firms groups that fit best with the needs of investors. To the extent that these investors form a critical mass (clientele), they are likely to influence stock valuations.

Investor reactions responding to a firm's significant news event (Ahern and Sosyura, 2014; Tetlock, 2007) tend to go beyond just the specific firm generating the news. The news announcement not only captures investor attention for the firm with the news but also may attract attention to firms with similar characteristics. A sizeable clientele response can result in spillover effects for firms that do not generate any news.

In order to test the idea that investors revise their investments of non-news generating firms in response to a positive news announcement of a firm in the same group, we focus on the effect from the presence of local investor clientele (i.e., senior citizen population in a MSA) on market reaction to dividend paying firms in the same MSA in response to dividend initiation of a firm in the same MSA. Dividend initiations are significant favorable events that attract investor

attention (Peng and Xiong, 2006). As the stock price movement for new dividend paying firms is significantly positive upon the initiation announcement (Asquith and Mullins, 1983; Healy and Palepu, 1988; Michaely, Thaler, and Womack, 1995), dividend initiations portray the firm in a positive manner to the investors. Furthermore, these positive events are widely cited in the popular media outlets that are likely to capture the attention of investor clientele for dividend paying firms.

Senior citizens are a specific investor clientele that pay great attention to dividend paying firms. In particular, senior citizen investors tend to show a preference for owning dividend paying stocks (Graham and Kumar, 2006). Furthermore, dividend initiations are widely cited in popular media outlets which further likely to attract attention of senior citizens. Thus, senior citizens establish an identifiable clientele for dividend paying firms.

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; Huberman, 2001; Hong, Kubik, and Stein, 2005, 2008). This also suggests higher level awareness of local stocks by local investors. Feng and Seasholes (2004) also show 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 provides the foundation for comovement among stock prices in the same MSA. Collectively, senior citizens in an MSA generate clientele for dividend paying firms in the same MSA which may shed light on the stock price comovement for firms that are located in the same MSA but not the same two-digit SIC code as the dividend initiating firm (seemingly unrelated firms).

The attention of senior citizens toward dividend initiating firms can bring recognition to other dividend firms in the same MSA. Previous studies show that investors evaluate a company based on a firm's grouping rather than the firm's fundamentals (Barberis and Shleifer, 2003; Barberis, Shleifer, and Wurgler, 2005; Patton and Verardo, 2012). For example, Massa and Zhang (2009) show positive spillover effect for acquirers' values when they pair up with popular targets. That is, investors view acquirers more favorably if they have a favorable opinion of the target firms. A firm with a significant news announcement not only draws investor attention to themselves but other firms with similar characteristics. As dividend initiations attract positive attention for the announcing firm, the news may attract positive attention for other dividend paying firms. This positive spillover of investor attention for other local dividend paying firms may result in a favorable market reaction in the presence of local clientele for seemingly unrelated dividend paying firms, leading to the positive-investor-attention hypothesis:

H1: 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.

Alternatively, the finite amount of investor attention may lead to seemingly unrelated firms competing with each other for investor attention (Barber and Odean, 2008). Firms attract considerable investor attention when they announce the initiation of dividends to shareholders. The increase in investor attention coupled with limited investor resources provides understanding that the increased awareness of the dividend initiating firm may come at the expense of other local dividend paying firms. For example, Hirshleifer, Lim, and Teoh (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. Competition for investor attention should intensify as firms compete for similar clientele, local investors (Coval and Moskowitz, 1999, 2001; Huberman, 2001; Hong, Kubik, and Stein, 2005, 2008).

Existing local dividend clientele may adjust current portfolio allocations to reflect the new information revealed by the dividend initiation. The potential reallocation of limited investor' resources may negatively impact other local dividend paying firms. For instance, Hong, Kubik, and Stein (2008) provide evidence that the more numerous firms are in a particular area the lower respective stock price when firms go public, ceteris paribus. A new dividend paying firm provides local senior citizen investors with an additional option for their portfolio, intensifying the competition for attention from this identifiable investor clientele. In response to this heightened competition seemingly unrelated dividend paying firms may experience an initial negative market reaction when another local firm initiates a dividend in the presence of a local clientele, establishing the investor-distraction hypothesis:

H2: Seemingly unrelated dividend paying 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. As we are analyzing the impact of a positive news announcement of a firm on

surrounding firms we restrict the positive news sample to just dividend initiations to accurately identify other firms that are located in the same MSA.

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, De Motta, Titman, and Uysal, 2010). After determining the MSA for the company generating the positive news, we identify all other public firms located within the same MSA. The 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.

We narrow our focus to seemingly unrelated firms that do not have correlated cash flows and risk with the underlying dividend initiating firm. As firms in the same industry have correlated cash flows, we exclude all firm observations that are classified into the same two-digit SIC code as the company making the announcement. As news announcements generated by seemingly unrelated firms may influence their own stock returns, 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, Kubik, and Stein (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 748 unique dividend initiation announcements with a total of 28,233 seemingly unrelated 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 (Becker, Ivkovic, and Weisbenner, 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 (Brown, Ivkovic, Smith, and Weisbenner, 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 investor clientele.

To assess the market reaction, we calculate the cumulative abnormal returns for firms located within the same area as the firm with positive news. This cumulative abnormal return is derived by utilizing market adjusted returns. We employ the estimation window of -5 to +5 days relative to the corresponding day of good news (dividend initiation announcement date). The extended window allows us to control for leakage of information in the pre-announcement period. It is also imperative for us to allow investors ample time to incorporate this new information into the market for seemingly unrelated firms (Hirshleifer, Lim, and Teoh, 2009).

Table 1 provides the descriptive statistics for the entire sample. The mean cumulative abnormal return is 30 basis points, and there is a large variation around the mean (standard deviation of 740 basis points). This suggests that stock prices of firms in the MSA do not uniformly respond to dividend initiations. Dividend paying companies comprise 54.6% of the entire sample. Therefore, the data are representative of both dividend paying and non-dividend

paying companies. Approximately, one-third of all the firm observations are located in the 20 most populous cities in the United States. The *Senior Citizen* variable represents the top quartile in terms of senior citizen density within the MSA; this value is comprised of firms located in areas where the total population is comprised of more than 12.8% senior citizens.

[Insert Table 1 About Here]

4. Univariate Analysis

This section examines the effect of the geographical demographics on the cumulative abnormal returns experienced by seemingly unrelated firms in the same MSA as the firm that initiates dividends. Table 2 reports the mean cumulative abnormal return for the percentage of senior citizens in the MSA quartiles. In Panel A of Table 2, the mean *CAR* of the highest senior citizen percentage quartile is 0.0048, while it is 0.0024 for the lowest quartile. The difference is 24 basis points and statistically significant ($p<0.10$). We further find dispersion in the cumulative abnormal returns between the bottom (-0.0004) and top (0.0024) quartiles of 28 basis points in the sub-sample of dividend paying firms ($p<0.05$). However, the difference of *CAR* for non-dividend paying companies between the senior citizen quartiles is not statistically significant. These findings suggest a disparity in market reactions generated by differential payout policies. Collectively, these findings provide preliminary evidence in support of the positive-investor-attention hypothesis.

We also examine whether our findings are driven by local macroeconomic shocks. Particularly, Panel B reports the effects of high density of senior citizens on *CAR* across state unemployment rate quartiles. We find a negative disparity of *CAR* between the high and low

density of senior citizens in three of the four state unemployment rate quartiles. Notably, the difference in *CAR* is significant in the presence of favorable local macroeconomic conditions (smallest quartile of observations for the state unemployment rate). This suggests that our findings are not driven by positive shocks to the local economy. We further control for the state of local macroeconomic conditions in the models.

[Insert Table 2 About Here]

Panel C provides further evidence that our findings are not driven by firms located in small cities. Specifically, Panel C examines the observations from companies located within the 20 most populous cities in the United States and outside the populous cities. There is a negative disparity between the first and fourth quartiles of senior citizen density for firms located within and outside the 20 most populous cities. The difference is significant for firms located within the 20 most populated cities, suggesting that our findings are not driven by firms located in small cities. We further account for the differences between observations within and outside the most populous cities in the multivariate regressions.

We also examine the effect of senior citizens across size quartiles as large, well established firms are more likely to pay dividends to shareholders (Fama and French, 2001). However, Panel D documents a notable negative difference of -0.0058 in stock price reaction for the smallest firm size quartile amongst the quartiles of senior citizen percentages, while all quartiles experience a negative disparity. Panel E reports that the lowest quartile of observations based upon *Tobin's Q* experiences a meaningful negative difference of -0.0073, between the first (0.0060) and fourth (0.0133) quartiles of senior citizens. Senior citizens are more likely to invest

in large firms with low Tobin's Q (Graham and Kumar, 2006). Consistent with this investor preference there are significant positive returns for low Tobin's Q firms in areas with a high concentration of senior citizens. This result highlights the important role senior citizen clientele have on local firms when aligned with their investor preferences.

Overall, the univariate analyses provide preliminary evidence in support of the positive-investor-attention hypothesis. The findings lend support to the concept that a particular group of investors (in this case senior citizens) may engage in coarse thinking and not incorporate the good news of a dividend initiation uniformly across all firms located the same MSA. The univariate analysis exhibits the importance of controlling for various factors that are consistent with the investing behavior of senior citizens in the multivariate regression analysis.

5. Regression Analysis

In this section, we examine the comovement of equity values for seemingly unrelated firms to positive news announcements from other firms located within the same MSA. Our empirical methodology follows previous event studies as we conduct a short-term event study and calculate the market adjusted returns for each seemingly unrelated firm using the CRSP value-weighted index. We use the cumulative abnormal returns as the dependent variable to analyze how a firm's positive news announcements influences the stock prices for seemingly unrelated firms located within the same MSA. The dependent variable also allows us to disentangle and identify the channels where a firm's good news influences the 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. Specifically, local shocks to firms located within a particular geographic region

may generate correlated cash flows; thereby driving comovements in stock valuations. Following Korniotis and Kumar (2013), we use the unemployment rate within the firm's state during the year as a proxy for regional economic shocks. Previous studies on economic geography show the effect of populous cities on investor behavior (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. This relation has the ability to affect local stock returns as investors can gather "soft information" on locally based firms. Investors place a higher value on this type of investment research which is considered to be private or personal insight into the firm (Daniel, Hirshleifer, and Sybrahmanyam, 1998). 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 the sample, there were a total of 25 different cities that made the list; therefore, we implement a binary variable that is time invariant for all firm observations located within these 25 cities.

To control for a stock price run-up (Jegadeesh and Titman, 1993; Grinblatt, Titman, and Wermers, 1995), we calculate the previous quarter's return for the stock. 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 smallest firms. We also control for the number of firms in the same MSA so that small MSA size is not driving our findings (Hong, Kubik, and Stein, 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 *Tobin's Q.*

The econometric issues that need to be closely monitored are the correlations between observations and the clustering of observations as well as the correlation between firms within the same industry. To address the first concern, we employ robust clustered standard errors by MSA (Petersen, 2009). Differences in the time when the initiation announcement is made are controlled for by using year fixed effects.

Table 3 reveals a strong effect of senior citizen density on stock price reaction of seemingly unrelatedly firms. Specifically, *Senior Citizen* variable is significantly positive at the 5% level. The effect is also economically significant. In a response to dividend initiation announcement of a firm in a MSA, there is a favorable market reaction of 40 basis points to the equity price of seemingly unrelated firms located in the same MSA when there is a large senior citizen population. This finding is consistent with the positive-investor-attention hypothesis.

We further examine whether the effect is uniform across firms that have a similar history as the dividend initiating firm. The results of separating the whole sample into dividend paying firms (column 5) and non-dividend paying firms (column 9) are in Table 3. The *Senior Citizen* variable is persistent, representing an increase of stock price by 30 basis points and is statistically and economically significant for the dividend payer subsample. However, the senior citizen density does not significantly impact the equity prices of seemingly unrelated non-dividend paying firms. Therefore, the dividend paying sample is driving the results and lends support in favor of the positive-investor-attention hypothesis.

These findings are critical for the understanding of the channels that are driving the cumulative abnormal returns for seemingly unrelated firms located within the same MSA. As senior citizens prefer dividend paying firms over non-dividend payers, the significant effect of senior citizen density in the subsample of dividend paying subsample and the insignificant effect

in the subsample of non-dividend paying subsample is consistent with the investor attention hypothesis. The effect of senior citizens is prominent when these firms are already in the radar screen of local senior citizen clientele.

[Insert Table 3 About Here]

We have included several firm and MSA characteristics that may influence *CAR*. However, there may be omitted variables that are driving our findings. Therefore, Table 3 reports regression analyses with fixed effects for years (columns 2, 6, and 10), firms (columns 3, 7, and 11), industries, and MSAs (columns 4, 8, and 12). Our initial findings for the sample remain intact with the introduction of fixed effects. When analyzing the fixed effects models for the dividend paying sample, *Senior Citizen* continues to be significant and positive for all models, responsible for a stock price increase of approximately 30 basis points. *Senior Citizen* is insignificant for the sample of non-dividend paying companies. After accounting for by MSAs, industry, and firm characteristics these findings lend further support to the view that seemingly unrelated dividend paying firms obtain a favorable market reaction when a local firm, in an area with a high concentration of senior citizens, makes a significant positive news announcement.

Other firm characteristics also help explain variation in market reaction to seemingly unrelated news. Specifically, *Stock Return* is highly significant and negative with a value of 0.004 for the entire sample. *Stock Return* continues to be negative and significant for dividend paying firms. This is indicative that the momentum of the returns for the previous quarter does not tend to continue.

6. Robustness Checks

We employ numerous robustness tests, to verify the inferences from our previous findings. The first robustness procedure we engage in is to incorporate the Text-based Network Industry Classifications (TNIC) data (Hoberg and Phillips, 2010a, 2010b), which have been shown to improve upon SIC codes. The TNIC relatedness data are based on text analysis of firm 10-K's which pair firms with other firms based on similarity scores annually. 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, the sample is reduced even further. The total sample for this analysis is 10,668 observations.

After incorporating the TNIC relatedness screens into the data, the previous findings are unchanged. Table 4 reports that *CAR* experiences a positive significant co-movement in equity prices for seemingly unrelated firms located within an area with a high density of senior citizens. Upon separating the data into dividend payers and non-dividend payers, we document a positive shock of 90 basis points to the stock price for dividend paying firms (p-value<0.01), while non-dividend payers do not experience a significant market reaction in the model. Table 4 substantiates the findings that dividend paying firms in areas with a high density of senior citizens receive a positive impact from another local firm's dividend initiating announcement.

[Insert Table 4 About Here]

Table 4 incorporates fixed effects along with the additional relatedness measure into the model. The findings in Table 4 substantiate the previous results as seemingly unrelated dividend

paying firms receive a positive stock price reaction of approximately 100 basis points when located in areas with a high concentration of senior citizens. *Senior Citizen* for the non-dividend paying sample remains insignificant to the incorporation of the additional relatedness screens. Collectively, not only do the previous results continue to hold, but are strengthened by incorporating the additional relatedness measure into the sample. Thus, our findings are not driven by the limitations of relatedness measures associated with SIC codes.

We also employ two mean regressions methods to test the hypotheses in the paper. The first is averaging the variables across each individual dividend announcement and treating this as a single observation. This method allows us to assess whether the previous findings are driven by a few dividend announcements. The second method 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. This mean regression enables us to test whether the findings are generated by a large number of dividend announcements in a few MSAs.

The intention of calculating the average of each announcement by the relevant firm observations in the first mean regression is to verify that the previous results are not being motivated by a select few dividend initiations. This results in the sample size decreasing from 28,245 total observations to 748 unique dividend initiation observations. Table 5 columns 1 through 3 report the results for the mean regressions of dividend initiation announcements. The regressions for the dividend paying firms yields similar results to the previous findings where the senior citizen percentage of the MSA significantly increases the equity valuations of dividend paying companies by 40 basis points ($p<0.01$). The non-dividend paying sample the *Senior Citizen* variable remains to be insignificant. 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.

[Insert Table 5 About Here]

Table 5 columns 4 through 6 provide the results from the second mean regression in which we utilize based on the average for all variables across a particular MSA. The sample yields 26 observations and three regressions as the construction of the analysis does not allow for any type of fixed effects. As the clustering of standard errors by MSA is not permissible; we apply the correction to the standard errors by the White's method (White, 1980). Despite the limited sample size, we continue to find supporting evidence that dividend paying companies within a geographic location with a high percentage of senior citizens experience a significantly positive comovement in stock prices of 70 basis points ($p<0.01$), when another firm initiates a dividend policy. The effect of senior citizens is not significant for the sub-sample of non-dividend paying firms. These findings suggest that a particular area is not generating our results, strengthening the evidence in support of the positive-investor-attention hypothesis.

Firms that are relatively young in their life cycles have greater mobility opportunities than their older counterparts in relocating the firm based on the growth and investment opportunities of a particular geographic location. A firm's initial location is strategically chosen to be conducive to the success of the firm and take advantage of knowledge spillovers (Alcácer and Chung, 2007). It is imperative to disentangle the effects of this choice. Therefore, the unobservable characteristics that go into a firm's decision where to locate become less relevant

over time. To relieve this concern, we execute regression analyses on the sub-section of firms that have been public for at least 10 years in Table 6.

The evidence in Table 6 is in line with the investor attention hypothesis. Specifically, the cumulative abnormal returns are positively significant not only for the dividend paying sample (p-value<0.05), but the whole sample (p-value<0.10) with stock price reaction of approximately 30 basis points. The impact of the percentage of senior citizens in the area continues to be insignificant for non-dividend paying firms. These results suggest that the findings of the paper are not being influenced by younger firms and their choice in locating the firm.

[Insert Table 6 About Here]

The positive-investor-attention hypothesis is built upon behavioral explanations which rely on behavior of individual investors. Thus, the effect should be prominent for firms with low institutional holdings. We obtain institutional holdings measures from the CDA/Spectrum 13F Holdings database. As most companies file semi-annually, we confine our attention as in Hong and Kacperczyk (2009) to year-end reports for institutional holdings. Consistent with previous studies, we set institutional holdings to zero for firms that do not have institutional investors reported in the dataset. We measure institutional holdings as the ratio of shares held by institutional investor relative to total shares outstanding. We define high institutional holding as a binary variable if the institutional holdings for the firm in the year preceding the dividend initiation is located in the top quartile of the sample. Observations not in upper quartile are identified as low institutional holding.

Table 7 provides regression analysis for the institutional holdings of the sample. The cumulative abnormal returns are significantly positive when there is a large senior citizen and low institutional holdings for both the entire sample (p-value<0.01) and the dividend paying sub-sample (p-value<0.01). However, the effect of senior citizen is not significant when there are high institutional holdings. Collectively, these findings are consistent with the positive-investor-attention hypothesis.

[Insert Table 7 About Here]

It is plausible that macroeconomic factors impacted equity returns for all dividend paying firms located in areas densely populated with senior citizens, not only those located in the same MSA as the initiating firm during the event window. To alleviate this concern we collect relevant data pertaining to all firms outside the MSA where the dividend initiation occurred. Following the same data screens used in the previous analysis, the sample of unrelated dividend paying firms, defined as firm observations outside the MSA and not within the same two-digit sic code of the announcing firm, consists of 168,878 observations (columns 1 through 4). Table 8 includes a variety of fixed effects in the regression analysis and the *Senior Citizen* variable is significant for the base model for the dividend sub-sample, but becomes insignificant once fixed effects are introduced. Thus, the insignificant effect of senior citizens on stock prices of firms located outside of the dividend initiating firm suggests that macro economic shocks are less likely to drive our findings.

[Insert Table 8 About Here]

It is also viable that the dividend initiation announcement influences the equity prices of related firms (same two-digit sic code) that are located in other geographical areas with high percentages of senior citizens. We address this issue by retrieving the data for all dividend paying firms with the same two-digit sic code that are not in the same MSA as the initiating firm for the sample. Ignoring the data screen of requiring ten observations per MSA, we employ the remaining data requirements; the resulting sub-sample of dividend paying outside MSA observations of related firms consists of 9,333 observations (columns 5 through 8). Table 8 implements numerous fixed effects in the regression analysis and the *Senior Citizen* variable insignificant across the sub-sample except when firm fixed effects are incorporated Senior Citizen becomes negative with marginal significance. Table 8 provides additional evidence that the main finding is contained to seemingly unrelated firms within the same geographic location of the positive news announcement. The conclusion provided by Table 8 further lends support to the hypothesis that when a firm initiates a dividend in an area with a high percentage of senior citizens, seemingly unrelated dividend paying firms in the same MSA experience a favorable equity reaction.

An alternative explanation for the findings in the paper is that the limited supply of dividend paying firms in the MSA for local senior citizens may generate positive returns for seemingly unrelated firms. Specifically, our findings may be driven by observations where there are relatively few dividend paying firms in the MSA as the dividend initiating firm. We alleviate this concern by replacing the number of firm observations for each dividend initiation with the number of dividend paying firm observations. Table 9 reports findings that are consistent with previous findings where the dividend paying sample receives a significantly positive reaction of

approximately 30 basis points. The level of dividend paying firms are not responsible for the positive stock market reaction for seemingly unrelated dividend paying companies in areas with a high concentration of senior citizens.

[Insert Table 9 About Here]

The finding that seemingly unrelated dividend paying firms receive a positive market reaction may be driven by the increase of their dividend payouts following the dividend initiation. Therefore, we collect the payout policy of the firm one year prior to the declaration date and the payout policy the year following the initiation. If the firm increased dividend payouts the year following the initiation announcement, the *Dividend Increase* binary variable receives a value of one and zero otherwise. Table 10 reports coefficient estimates of the probit model in which the dependent variable is the *Dividend Increase* variable. Seemingly unrelated dividend paying firms located in areas with high senior citizen density do not have a higher probability of increasing dividend payout after the initiation announcement. This provides further evidence that dividend paying firms within densely populated areas with senior citizens were not more likely to increase dividends than those that were not following the dividend announcement. Thus, our findings are less likely to be attributed to future changes in the payout policy of local firms.

[Insert Table 10 About Here]

A plausible economic driver for the findings is that the dividend paying firms located in areas with a high percentage of senior citizens in the sample may experience a significant increase in their cash flows the year of the dividend initiation. Thus, our findings may be reflecting the market rewarding these firms for the increase in profitability and has no correlation to the dividend initiation announcement of a nearby firm. To address this possibility we calculate the mean industry adjusted change in profitability (*EBITDA/TA*) from the year of the initiation to the firm's prior year profitability for the dividend paying sample. Table 11 shows that dividend paying firms located in areas with a high density of senior citizens do not experience a significant change in their profitability the year of the initiation announcement. These results combined with those from Tables 7, 8, 9 and 10 are not fully consistent with the alternative hypotheses, rather strengthen the evidence in support of the positive-investor-attention hypothesis.

[Insert Table 11 About Here]

In a final robust analysis we re-estimate the model using multiple dependent variables calculated across a variety of extended event windows, including the event window (-0, +0), a three-day window (-1, +1), and a five-day window (-2, +2). As our focus is dividend paying firms in areas densely populated with senior citizens we only report the estimates of the dividend paying sub-sample of the data and for brevity we do not report the estimates of the control variables. Using the event day (columns 1 through 4) as the dependent variable, Table 12 shows that seemingly unrelated dividend paying firms located in areas with a high percentage a significant positive equity reaction to the dividend initiation across all specifications. The three-

day event window (columns 5 through 8) is significantly positive across all qualifications. The last model reported is representative of the five-day event window (columns 9 through 12) and provides supporting yet weaker results as *Senior Citizen* is only significant for the base model and the firm fixed effects regression. Table 12 exhibits suggestive evidence that the length of the event window is not dictating the findings and supports the positive-investor-attention hypothesis.

[Insert Table 12 About Here]

7. Conclusion

Previous studies document that the comovement of stock prices is not fully explained by firm fundamentals. The ability of an individual firm's actions to have an effect on stock prices of surrounding firms is important to understand, however the literature provides limited evidence of these channels. In this study, we investigate how and why investor clienteles contribute to stock price comovoment. Controlling for firms with correlated cash flows and risks, provides us the setting to study the direct market reaction of a news announcement on seemingly unrelated firms who possess similar investor clientele.

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-attention hypothesis. The persistency of this outcome is robust to numerous empirical methods and measures. Evidence

throughout indicates positive spillover effects of significant positive news (e.g., dividend initiations) for seemingly unrelated firms within the same geographical location in the presence of individual investor clientele (e.g., senior citizens).

Our findings contribute to the literature by providing evidence that the local demographics of a firm influence stock returns. We identify a channel in which news announcements of a firm have the ability to affect other local seemingly unrelated firms. The evidence suggests that a firm's local investor clientele observe significant news announcements of one local firm and associate the announcement as news for other seemingly unrelated firms within the same MSA. The preferences of particular investor clientele in firm characteristics can help explain the comovement of equity returns between firms in the same geographical area.

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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).
High Institutional Holding	Binary variable that takes the value of one if the firm is located within the highest quartile in terms of institutional holdings the year preceding the dividend initiation announcement, zero otherwise.
Institutional Holdings	Measured as the ratio of shares held by institutional investors relative to total shares outstanding in yearend reports for institutional holdings obtained from CDA/Spectrum 13F Holdings database.
Log (# of Dividend Firms)	Measured as the log (number of dividend paying firms). This variable measures the number of dividend paying firm observations associated with each dividend initiation that is included in the final sample.
Log(# of Firms)	Measured as the log (number of 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.
Low Institutional Holding	Binary variable that takes the value of one if the firm is not located within the highest quartile in terms of institutional holdings the year preceding the dividend initiation announcement, zero otherwise.
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.

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Senior Citizen	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	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 748 dividend initiations after the data screens. Variable definitions are provided in Appendix I.

Variable	***n***	**Mean**	**S.D.**	**Min**	**0.25**	**Median**	**0.75**	**Max**
AGE	28,245	25.698	14.981	0	13	24	37	62
CAR	28,245	0.003	0.074	-0.201	-0.037	-0.001	0.038	0.267
Cash/TA	28,245	0.119	0.148	0.000	0.019	0.059	0.160	0.721
EBITDA/TA	28,245	0.037	0.028	-0.050	0.021	0.036	0.051	0.130
High Institutional	28,245	0.405	0.323	0.000	0.089	0.379	0.676	1.000
Institutional Holdings	28,245	0.250	0.433	0	0	0	0	1
Log (# of Dividend Firms)	28,245	3.252	0.737	1.386	2.708	3.296	3.932	4.357
Log (# of Firms)	28,245	3.880	0.685	2.398	3.367	3.912	4.554	4.820
Log (Population)	28,245	16.351	0.732	14.634	15.776	16.620	17.080	17.210
Low Institutional	28,245	0.750	0.433	0	1	1	1	1
Payer	28,245	0.546	0.498	0	0	1	1	1
Sales	28,245	4.830	1.894	0.780	3.444	4.709	6.177	9.485
Senior	28,245	0.117	0.015	0.077	0.109	0.124	0.128	0.141
Senior Citizen	28,245	0.250	0.433	0	0	0	0	1
Size	28,245	6.072	1.993	2.542	4.560	5.868	7.459	11.123
State Unemployment Rate	28,245	0.063	0.017	0.032	0.050	0.061	0.074	0.117
Stock Return	28,245	0.033	0.200	-0.519	-0.080	0.031	0.140	0.687
Tobin's Q	28,245	1.637	0.933	0.672	1.059	1.342	1.850	6.026
Top 20 City	28,245	0.343	0.475	0	0	0	1	1
Total Debt/TA	28,245	0.237	0.187	0.000	0.082	0.217	0.348	0.831

Table 2 - Univariate statistics by senior population quartiles

Univariate descriptions considering the cumulative abnormal returns of the window (-0, +0). Panel A reports the mean *CARs* of the entire sample, dividend payers, and non-dividend payers of the 28,233 observations by quartile. Panel B reports the *CARs* by senior citizen density quartiles and the state unemployment rate quartiles. Panel C reports the *CARs* by senior citizen density quartiles and the number of firm observations per announcement quartiles. Panel D reports the *CARs* by senior citizen density quartiles for observations located in the top 20 cities and observations located outside of the top 20 cities. Panel E reports the *CARs* by senior citizen density quartiles and size quartiles. Panel F reports the *CARs* by senior citizen density quartiles and *Tobin's Q* quartiles. Variable definitions are provided in Appendix I. ***, ** and * stand for statistical significance at the 1%, 5% and 10% level, respectively.

Panel A

	Senior Population Quartiles				
	1	2	3	4	1-4
Whole Sample	0.0024	0.0013	0.0045	0.0048	-0.0024*
Dividend Payers	-0.0004	0.0001	0.0029	0.0024	-0.0028**
Non-Dividend payers	0.0061	0.0023	0.0065	0.0078	-0.0017

Panel B

	Senior Population Quartiles				
State Unemployment Rate	1	2	3	4	1-4
1 (Lowest)	-0.0069	0.0020	0.0029	0.0046	-0.0115***
2	0.0057	0.0033	0.0040	0.0042	0.0015
3	0.0020	0.0037	0.0000	0.0058	-0.0038
4	0.0025	0.0024	0.0088	0.0061	-0.0037

Panel C

	Senior Population Quartiles				
	1	2	3	4	1-4
Outside Top 20 City	0.0041	0.0014	0.0048	0.0054	-0.0013
Top 20 City	-0.0004	0.0002	0.0044	0.0035	-0.0039*

(Continued on next page)

Panel D

	Senior Population Quartiles				
Size Quartiles	1	2	3	4	1-4
1 (Lowest)	0.0045	0.0067	0.0054	0.0103	-0.0058*
2	0.0031	0.0038	0.0060	0.0034	-0.0003
3	0.0016	0.0014	0.0026	0.0044	-0.0028
4	-0.0014	-0.0041	0.0030	0.0017	-0.0031

Panel E

	Senior Population Quartiles				
Tobin's Q	1	2	3	4	1-4
1 (Lowest)	0.0060	0.0063	0.0103	0.0133	-0.0073**
2	0.0019	0.0007	0.0058	0.0029	-0.0010
3	0.0007	0.0020	0.0002	0.0024	-0.0017
4	0.0010	-0.0034	0.0032	-0.0007	0.0017

Table 3 – Fixed effects regression analysis for the total sample

This table provides the regression analysis of the data with the dependent variable being *CAR*. These regressions are representative of the time period from 1980 to 2011. The robust standard errors are clustered by MSA. Variable definitions are provided in Appendix I. The constant terms are omitted for brevity. *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			
	(1)	(2)	(3)	(4)	**(5)**	**(6)**	**(7)**	**(8)**	(9)	(10)	(11)	(12)
Senior Citizen	0.004** (0.032)	0.004** (0.038)	0.004** (0.043)	0.003* (0.099)	**0.003***** **(0.008)**	**0.003***** **(0.005)**	**0.003**** **(0.017)**	**0.003*** **(0.052)**	0.004 (0.177)	0.003 (0.298)	0.004 (0.212)	0.003 (0.550)
State Rate	0.010 (0.765)	0.063 (0.145)	0.014 (0.637)	-0.014 (0.779)	**-0.010** **(0.785)**	**0.029** **(0.378)**	**-0.010** **(0.753)**	**-0.051** **(0.412)**	0.005 (0.930)	0.075 (0.320)	-0.002 (0.979)	0.059 (0.560)
Cash/TA	0.003 (0.578)	0.002 (0.713)	0.001 (0.842)	0.006 (0.557)	**0.004** **(0.228)**	**0.003** **(0.309)**	**0.004** **(0.313)**	**0.008** **(0.165)**	0.001 (0.887)	-0.000 (0.989)	-0.001 (0.942)	0.004 (0.811)
Ebitda/TA	0.106** (0.011)	0.107** (0.011)	0.103** (0.016)	0.144** (0.018)	**0.124***** **(0.000)**	**0.127***** **(0.000)**	**0.124***** **(0.000)**	**0.157***** **(0.000)**	0.106* (0.078)	0.103* (0.083)	0.097 (0.129)	0.146* (0.098)
Log(# of firms)	0.001 (0.522)	0.003 (0.289)	0.001 (0.413)	0.003 (0.358)	**0.001** **(0.739)**	**0.002** **(0.607)**	**0.000** **(0.845)**	**0.001** **(0.736)**	0.002 (0.394)	0.004 (0.156)	0.002 (0.238)	0.006 (0.121)
Log (pop.)	0.001 (0.329)	0.004 (0.582)	0.001 (0.636)	-0.004 (0.611)	**0.002** **(0.147)**	**-0.000** **(0.971)**	**0.002** **(0.179)**	**-0.006** **(0.289)**	0.000 (0.851)	0.008 (0.503)	-0.001 (0.568)	-0.011 (0.587)
Sales	-0.001*** (0.000)	-0.001*** (0.000)	-0.001*** (0.000)	-0.005*** (0.001)	**-0.001** **(0.220)**	**-0.001** **(0.159)**	**-0.000** **(0.511)**	**-0.005***** **(0.004)**	-0.001** (0.037)	-0.001** (0.046)	-0.001** (0.030)	-0.004** (0.011)
Stock Return	-0.004** (0.032)	-0.004* (0.064)	-0.004* (0.055)	-0.005 (0.151)	**-0.008***** **(0.002)**	**-0.009***** **(0.003)**	**-0.008***** **(0.001)**	**-0.011***** **(0.000)**	-0.002 (0.487)	-0.002 (0.646)	-0.002 (0.501)	-0.002 (0.646)
Tobin's Q	-0.004*** (0.000)	-0.004*** (0.000)	-0.004*** (0.000)	-0.007*** (0.000)	**-0.005***** **(0.000)**	**-0.005***** **(0.000)**	**-0.005***** **(0.000)**	**-0.008***** **(0.000)**	-0.003** (0.021)	-0.003** (0.021)	-0.003** (0.032)	-0.006*** (0.007)
Top 20 City	-0.001 (0.221)	-0.001 (0.399)	-0.002 (0.128)	-0.082*** (0.000)	**-0.002*** **(0.086)**	**-0.001** **(0.139)**	**-0.002** **(0.103)**	**-0.187***** **(0.000)**	-0.001 (0.402)	-0.000 (0.786)	-0.001 (0.427)	0.068*** (0.000)
Debt/TA	0.000 (0.940)	-0.000 (0.802)	0.000 (0.920)	0.004 (0.304)	**-0.003** **(0.457)**	**-0.004** **(0.423)**	**-0.002** **(0.539)**	**0.001** **(0.649)**	0.000 (0.930)	-0.001 (0.846)	0.001 (0.726)	0.006 (0.327)
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	28,245	28,245	28,245	28,245	**15,414**	**15,414**	**15,414**	**15,414**	12,831	12,831	12,831	12,831
r^2	0.011	0.013	0.014	0.082	**0.015**	**0.016**	**0.02**	**0.138**	0.013	0.017	0.018	0.106

Table 4 – Fixed effects regression analysis for the total sample including Hoberg-Phillips TNIC screens

This table provides the regression analysis of the data with the dependent variable being *CAR*. These regressions are representative of the time period from 1996 to 2008 and exclude firm observations classified in the same two-digit SIC code industry and the relatedness measure from Hoberg and Phillips known as the Text-based Network Industry Classifications. The robust standard errors are clustered by MSA. Variable definitions are provided in Appendix I. The constant terms are omitted for brevity. *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 Payers**				Non-Dividend Payers			
	(1)	(2)	(3)	(4)	**(5)**	**(6)**	**(7)**	**(8)**	(9)	(10)	(11)	(12)
Senior Citizen	0.007** (0.047)	0.009* (0.071)	0.008** (0.039)	0.006 (0.293)	**0.009***** **(0.002)**	**0.010**** **(0.032)**	**0.010***** **(0.001)**	**0.010** **(0.117)**	0.006 (0.274)	0.007 (0.217)	0.006 (0.223)	0.002 (0.812)
State Rate	0.521*** (0.007)	0.607*** (0.003)	0.494** (0.027)	0.723** (0.046)	**0.435*** **(0.051)**	**0.564***** **(0.009)**	**0.442*** **(0.056)**	**0.712**** **(0.029)**	0.548** (0.025)	0.609** (0.011)	0.505* (0.073)	0.832 (0.151)
Cash/TA	0.003 (0.627)	0.002 (0.721)	0.002 (0.725)	0.009 (0.462)	**0.010** **(0.166)**	**0.009** **(0.252)**	**0.006** **(0.471)**	**0.021**** **(0.048)**	-0.003 (0.745)	-0.002 (0.829)	0.001 (0.930)	0.007 (0.586)
Ebitda/TA	0.080 (0.138)	0.083 (0.123)	0.080 (0.152)	0.112 (0.327)	**0.144***** **(0.000)**	**0.149***** **(0.000)**	**0.131***** **(0.000)**	**0.252***** **(0.000)**	0.057 (0.499)	0.056 (0.498)	0.047 (0.628)	0.081 (0.640)
Log(# of firms)	-0.003 (0.429)	-0.005 (0.219)	-0.003 (0.361)	-0.006** (0.045)	**0.001** **(0.818)**	**0.000** **(0.990)**	**0.000** **(0.921)**	**-0.001** **(0.930)**	-0.006 (0.107)	-0.008*** (0.006)	-0.006* (0.061)	-0.009*** (0.002)
Log (pop.)	0.006* (0.055)	0.010 (0.867)	0.006** (0.048)	0.043 (0.481)	**0.003** **(0.377)**	**-0.007** **(0.889)**	**0.003** **(0.283)**	**0.062** **(0.193)**	0.008** (0.032)	0.014 (0.859)	0.007** (0.026)	0.080 (0.475)
Sales	-0.001*** (0.001)	-0.001*** (0.002)	-0.001** (0.014)	-0.006 (0.188)	**-0.001** **(0.313)**	**-0.001** **(0.251)**	**-0.001** **(0.175)**	**-0.007***** **(0.005)**	-0.001* (0.088)	-0.001* (0.100)	-0.001 (0.276)	-0.009 (0.228)
Stock Return	0.003 (0.399)	0.003 (0.471)	0.003 (0.435)	0.004 (0.206)	**-0.002** **(0.466)**	**-0.004** **(0.293)**	**-0.003** **(0.248)**	**-0.001** **(0.825)**	0.006 (0.206)	0.006 (0.219)	0.005 (0.291)	0.004 (0.464)
Tobin's Q	-0.003** (0.014)	-0.003** (0.011)	-0.003** (0.018)	-0.009*** (0.007)	**-0.004***** **(0.000)**	**-0.004***** **(0.000)**	**-0.004***** **(0.000)**	**-0.011***** **(0.000)**	-0.003 (0.124)	-0.002 (0.131)	-0.003 (0.115)	-0.008* (0.070)
Top 20 City	-0.001 (0.468)	-0.001 (0.636)	-0.001 (0.768)	-0.240*** (0.000)	**-0.001** **(0.349)**	**-0.001** **(0.493)**	**-0.000** **(0.964)**	**-0.040***** **(0.000)**	-0.001 (0.702)	0.000 (0.926)	-0.000 (0.950)	-0.117 (0.681)
Debt/TA	-0.001 (0.941)	-0.001 (0.877)	0.001 (0.874)	-0.007 (0.658)	**-0.004** **(0.714)**	**-0.005** **(0.665)**	**-0.001** **(0.908)**	**0.007** **(0.658)**	0.001 (0.904)	0.001 (0.913)	0.003 (0.758)	-0.014 (0.543)
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	10,668	10,668	10,668	10,668	**5,378**	**5,378**	**5,378**	**5,378**	5,290	5,290	5,290	5,290
r^2	0.014	0.019	0.021	0.136	**0.022**	**0.026**	**0.035**	**0.208**	0.013	0.022	0.024	0.162

Table 5 – Mean regression analysis

This table provides the regression analysis of the data by announcement mean and MSA mean with the dependent variable being *CAR*. Below are the results for announcement mean regressions on the entire sample (Column 1), dividend paying firms in the sample (Column 2) and non-paying dividend firms within the sample (Column 3). As there were 748 total dividend initiation announcement identified, there is a maximum of 748 observations. Also, below are the results for the MSA mean regression for the entire sample (Column 4), dividend paying firms within the data (Column 5) and non-paying dividend firms within the sample (Column 6). As there were only observations from 26 MSAs after data screens there are only 26 observations for this analysis. These regressions are representative of the time period from 1980 to 2011. The reported standard errors for announcement mean regressions are clustered by MSA and the standard errors for the MSA mean regressions are adjusted to the specification consistent with White's robust standard errors. The constant term was included in the model but excluded from this table for brevity. Variable definitions are provided in Appendix I. The constant terms are omitted for brevity. *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 (1)	**Dividend Payers (2)**	**Non-Dividend Payers (3)**	Whole Sample (4)	Dividend Payers (5)	Non-Dividend Payers (6)
Senior Citizen	**0.002**	**0.004*** **	**0.002**	0.006	0.007***	0.002
	(0.228)	**(0.004)**	**(0.436)**	(0.427)	(0.010)	(0.771)
State Rate	**-0.072**	**0.001**	**-0.034**	-0.192	0.406*	-0.490
	(0.287)	**(0.985)**	**(0.766)**	(0.500)	(0.095)	(0.313)
Cash/TA	**0.012**	**-0.019**	**0.016**	0.014	-0.052	-0.261
	(0.760)	**(0.515)**	**(0.630)**	(0.893)	(0.450)	(0.132)
EBITDA/TA	**0.189**	**0.043**	**0.275***	-0.856	-0.068	0.466
	(0.108)	**(0.803)**	**(0.058)**	(0.286)	(0.827)	(0.425)
Log(# of Firms)	**0.003**	**0.001**	**0.002**	0.006	-0.000	0.021*
	(0.119)	**(0.365)**	**(0.381)**	(0.454)	(0.939)	(0.061)
Log(Population)	**-0.001**	**0.001**	**-0.001**	-0.000	0.001	-0.004
	(0.777)	**(0.449)**	**(0.697)**	(0.986)	(0.646)	(0.669)
Sales	**-0.002**	**-0.001**	**-0.002**	-0.002	0.007***	-0.009
	(0.234)	**(0.685)**	**(0.405)**	(0.634)	(0.005)	(0.190)
Stock Return	**-0.012***	**-0.015** **	**-0.015**	0.078	0.078**	0.040
	(0.094)	**(0.042)**	**(0.233)**	(0.290)	(0.032)	(0.184)
Tobin's Q	**-0.010** **	**0.003**	**-0.014*** **	0.026	0.010	0.062***
	(0.019)	**(0.535)**	**(0.004)**	(0.193)	(0.353)	(0.007)
Top 20 City	**-0.009** **	**-0.009*** **	**-0.006**	-0.025*	-0.013***	-0.041**
	(0.013)	**(0.000)**	**(0.145)**	(0.069)	(0.009)	(0.016)
Total Debt/TA	**0.007**	**0.027**	**0.001**	0.135**	0.080**	0.042
	(0.848)	**(0.226)**	**(0.979)**	(0.021)	(0.017)	(0.538)
Year Fixed Effects	**Yes**	**Yes**	**Yes**	No	No	No
N	**748**	**748**	**746**	26	26	26
r^2	**0.127**	**0.112**	**0.098**	0.581	0.744	0.659

Table 6 – Fixed effects regression analysis for firms 10 years or older

This table provides the regression analysis of the data with the dependent variable being *CAR*. These regressions are representative of the time period from 1980 to 2011. The robust standard errors are clustered by MSA. Variable definitions are provided in Appendix I. The constant terms are omitted for brevity. *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			
	(1)	(2)	(3)	(4)	**(5)**	**(6)**	**(7)**	**(8)**	(9)	(10)	(11)	(12)
Senior Citizen	0.003* (0.086)	0.003* (0.072)	0.003* (0.095)	0.003 (0.124)	**0.003*** **(0.058)**	**0.004***** **(0.007)**	**0.003*** **(0.075)**	**0.004**** **(0.018)**	0.003 (0.270)	0.001 (0.630)	0.003 (0.327)	-0.000 (0.907)
State Rate	0.015 (0.692)	0.072* (0.055)	0.025 (0.485)	0.004 (0.914)	**-0.021** **(0.630)**	**0.021** **(0.553)**	**-0.015** **(0.695)**	**-0.067** **(0.242)**	0.043 (0.582)	0.116 (0.129)	0.035 (0.668)	0.069 (0.370)
Cash/TA	0.003 (0.623)	0.002 (0.777)	0.001 (0.786)	0.011 (0.308)	**0.004** **(0.274)**	**0.003** **(0.375)**	**0.004** **(0.311)**	**0.005** **(0.472)**	0.001 (0.897)	-0.000 (0.975)	0.001 (0.929)	0.014 (0.442)
Ebitda/TA	0.108** (0.014)	0.108** (0.014)	0.104** (0.013)	0.151** (0.015)	**0.099***** **(0.004)**	**0.102***** **(0.005)**	**0.094***** **(0.002)**	**0.166***** **(0.002)**	0.128** (0.044)	0.121** (0.047)	0.117* (0.062)	0.155* (0.087)
Log(# of firms)	0.002 (0.146)	0.004 (0.134)	0.002* (0.067)	0.003 (0.222)	**0.001** **(0.356)**	**0.004** **(0.167)**	**0.001** **(0.462)**	**0.004** **(0.234)**	0.002 (0.217)	0.004 (0.205)	0.003 (0.143)	0.003 (0.416)
Log (pop.)	0.001 (0.283)	0.003 (0.703)	0.001 (0.642)	-0.003 (0.769)	**0.002** **(0.203)**	**0.002** **(0.851)**	**0.002** **(0.255)**	**-0.010** **(0.138)**	0.000 (0.880)	0.002 (0.869)	-0.002 (0.428)	-0.006 (0.758)
Sales	-0.001*** (0.000)	-0.001*** (0.000)	-0.001*** (0.004)	-0.003** (0.020)	**-0.001** **(0.317)**	**-0.001** **(0.253)**	**-0.000** **(0.646)**	**-0.006***** **(0.001)**	-0.001** (0.015)	-0.001** (0.019)	-0.001** (0.021)	-0.002 (0.267)
Stock Return	-0.007*** (0.007)	-0.006** (0.011)	-0.006*** (0.008)	-0.007** (0.015)	**-0.007***** **(0.007)**	**-0.008***** **(0.008)**	**-0.007***** **(0.005)**	**-0.010***** **(0.000)**	-0.006** (0.015)	-0.006** (0.022)	-0.006** (0.019)	-0.007** (0.031)
Tobin's Q	-0.004*** (0.000)	-0.004*** (0.000)	-0.005*** (0.000)	-0.008*** (0.000)	**-0.004***** **(0.000)**	**-0.005***** **(0.000)**	**-0.005***** **(0.000)**	**-0.007***** **(0.002)**	-0.004** (0.015)	-0.004** (0.013)	-0.004** (0.022)	-0.007*** (0.007)
Top20City	-0.002 (0.116)	-0.001 (0.120)	-0.002* (0.071)	-0.074*** (0.000)	**-0.002** **(0.115)**	**-0.000** **(0.333)**	**-0.002**** **(0.031)**	**-0.107***** **(0.000)**	-0.002 (0.167)	-0.002 (0.150)	-0.002 (0.233)	-0.043** (0.025)
Debt/TA	0.000 (0.811)	-0.000 (0.989)	0.000 (0.851)	0.002 (0.497)	**-0.004** **(0.259)**	**-0.004** **(0.234)**	**-0.003** **(0.409)**	**-0.002** **(0.639)**	0.002 (0.617)	0.001 (0.786)	0.004 (0.369)	0.006 (0.371)
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	23,619	23,619	23,619	23,619	**13,659**	**13,659**	**13,659**	**13,659**	9,960	9,960	9,960	9,960
r^2	0.012	0.013	0.015	0.085	**0.016**	**0.017**	**0.022**	**0.141**	0.014	0.016	0.019	0.108

Table 7 – Fixed effects regression analysis for institutional ownership

This table provides the regression analysis of the data with the dependent variable being *CAR*. These regressions are representative of the time period from 1980 to 2011. The robust standard errors are clustered by MSA. Variable definitions are provided in Appendix I. The constant terms are omitted for brevity. *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			
	(1)	(2)	(3)	(4)	**(5)**	**(6)**	**(7)**	**(8)**	(9)	(10)	(11)	(12)
State Rate	0.009	0.063	0.013	-0.013	**-0.009**	**0.029**	**-0.009**	**-0.050**	0.006	0.075	-0.001	0.058
	(0.771)	(0.147)	(0.641)	(0.778)	**(0.804)**	**(0.368)**	**(0.775)**	**(0.416)**	(0.926)	(0.324)	(0.981)	(0.569)
Cash/TA	0.003	0.002	0.001	0.006	**0.004**	**0.003**	**0.003**	**0.008**	0.001	-0.000	-0.001	0.004
	(0.592)	(0.725)	(0.858)	(0.534)	**(0.238)**	**(0.324)**	**(0.320)**	**(0.165)**	(0.887)	(0.994)	(0.941)	(0.794)
Ebitda/TA	0.106**	0.107**	0.103**	0.144**	**0.124*** **	**0.127*** **	**0.124*** **	**0.157*** **	0.107*	0.103*	0.097	0.146
	(0.010)	(0.010)	(0.015)	(0.019)	**(0.000)**	**(0.000)**	**(0.000)**	**(0.000)**	(0.074)	(0.079)	(0.127)	(0.102)
Log(# of firms)	0.001	0.003	0.001	0.003	**0.000**	**0.001**	**0.000**	**0.001**	0.001	0.004	0.002	0.006
	(0.537)	(0.288)	(0.431)	(0.361)	**(0.757)**	**(0.617)**	**(0.873)**	**(0.738)**	(0.411)	(0.153)	(0.253)	(0.120)
Log (pop.)	0.001	0.004	0.001	-0.004	**0.002**	**-0.001**	**0.002**	**-0.006**	0.000	0.008	-0.001	-0.011
	(0.326)	(0.599)	(0.634)	(0.617)	**(0.140)**	**(0.938)**	**(0.176)**	**(0.297)**	(0.883)	(0.517)	(0.546)	(0.584)
Sales	-0.001***	-0.001***	-0.001***	-0.005***	**-0.001**	**-0.001**	**-0.000**	**-0.005*** **	-0.001	-0.001	-0.001	-0.004**
	(0.000)	(0.000)	(0.000)	(0.001)	**(0.214)**	**(0.157)**	**(0.502)**	**(0.004)**	(0.125)	(0.140)	(0.105)	(0.024)
Stock Return	-0.004**	-0.004*	-0.004*	-0.005	**-0.008*** **	**-0.009*** **	**-0.008*** **	**-0.011*** **	-0.002	-0.002	-0.003	-0.002
	(0.032)	(0.064)	(0.055)	(0.147)	**(0.002)**	**(0.003)**	**(0.001)**	**(0.000)**	(0.472)	(0.630)	(0.495)	(0.638)
Tobin's Q	-0.004***	-0.004***	-0.004***	-0.007***	**-0.005*** **	**-0.005*** **	**-0.005*** **	**-0.008*** **	-0.003**	-0.003**	-0.003**	-0.006***
	(0.000)	(0.000)	(0.000)	(0.000)	**(0.000)**	**(0.000)**	**(0.000)**	**(0.000)**	(0.028)	(0.029)	(0.036)	(0.008)
Top20City	-0.001	-0.001	-0.002	-0.082***	**-0.002***	**-0.001**	**-0.002***	**-0.187*** **	-0.001	-0.000	-0.001	0.068***
	(0.217)	(0.395)	(0.129)	(0.000)	**(0.075)**	**(0.115)**	**(0.092)**	**(0.000)**	(0.406)	(0.789)	(0.427)	(0.000)
Debt/TA	0.000	-0.001	0.000	0.004	**-0.003**	**-0.004**	**-0.002**	**0.001**	0.000	-0.001	0.001	0.006
	(0.974)	(0.772)	(0.933)	(0.304)	**(0.455)**	**(0.420)**	**(0.535)**	**(0.639)**	(0.956)	(0.824)	(0.732)	(0.340)
High Institutional	-0.000	-0.000	-0.000	-0.002	**0.001**	**0.001**	**0.001**	**-0.000**	-0.002	-0.002	-0.001	-0.003**
	(0.765)	(0.736)	(0.954)	(0.216)	**(0.390)**	**(0.404)**	**(0.349)**	**(0.862)**	(0.323)	(0.288)	(0.564)	(0.044)
High Institutional* Senior Citizen	0.001	0.002	0.001	0.002	**0.001**	**0.001**	**0.000**	**0.003**	0.002	0.002	0.002	0.003
	(0.604)	(0.563)	(0.615)	(0.530)	**(0.732)**	**(0.521)**	**(0.862)**	**(0.221)**	(0.693)	(0.733)	(0.669)	(0.613)
Low Institutional* Senior Citizen	0.005***	0.004***	0.004**	0.004**	**0.004*** **	**0.004*** **	**0.004*** **	**0.003** **	0.005	0.004	0.004	0.002
	(0.009)	(0.010)	(0.014)	(0.049)	**(0.001)**	**(0.001)**	**(0.002)**	**(0.043)**	(0.118)	(0.220)	(0.159)	(0.570)
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	28,245	28,245	28,245	28,245	**15,414**	**15,414**	**15,414**	**15,414**	12,831	12,831	12,831	12,831
r^2	0.011	0.013	0.014	0.082	**0.015**	**0.016**	**0.02**	**0.138**	0.013	0.017	0.018	0.106

Table 8 – Fixed effects regression analysis for the dividend paying sample outside the announcing MSA at the time of the dividend announcement

This table provides the regression analysis of the data with the dependent variable being *CAR*. Regressions in columns 1 through 4 are illustrative of the sample of seemingly unrelated firms (different 2-digit SIC code) outside the MSA of the initiating firm during the dividend announcement. The regressions in columns 5 through 8 are representative of industry related firm observations (same 2-digit SIC code) outside the MSA of the initiating firm during the dividend announcement. The sample period for the data is from 1980 to 2011. The robust standard errors are clustered by MSA. Variable definitions are provided in Appendix I. The constant terms are omitted for brevity. *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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	Different 2-Digit SIC Code Sample				**Same 2-Digit SIC Code Sample**			
	(1)	(2)	(3)	(4)	**(5)**	**(6)**	**(7)**	**(8)**
Senior Citizen	0.001**	0.001	0.001	0.001	**0.001**	**-0.002**	**0.001**	**-0.005***
	(0.037)	(0.546)	(0.105)	(0.574)	**(0.777)**	**(0.516)**	**(0.703)**	**(0.093)**
State Rate	0.031*	0.038	0.030*	0.024	**0.019**	**0.061**	**0.032**	**0.073**
	(0.076)	(0.125)	(0.088)	(0.434)	**(0.698)**	**(0.449)**	**(0.517)**	**(0.450)**
Cash/TA	0.004**	0.004*	0.004**	0.000	**0.006**	**0.004**	**0.006**	**0.005**
	(0.036)	(0.055)	(0.043)	(0.885)	**(0.264)**	**(0.518)**	**(0.311)**	**(0.624)**
Ebitda/TA	0.105***	0.105***	0.111***	0.143***	**0.150*** **	**0.153*** **	**0.145*** **	**0.142*** **
	(0.000)	(0.000)	(0.000)	(0.000)	**(0.000)**	**(0.000)**	**(0.000)**	**(0.009)**
Log(# of firms)	0.002**	0.004***	0.002***	0.004***	**-0.000**	**-0.001**	**0.003**	**0.002**
	(0.013)	(0.001)	(0.005)	(0.000)	**(0.719)**	**(0.598)**	**(0.167)**	**(0.496)**
Log (pop.)	-0.002**	0.001	-0.002***	-0.001	**0.001***	**0.003**	**0.001***	**0.001**
	(0.010)	(0.815)	(0.004)	(0.722)	**(0.083)**	**(0.416)**	**(0.075)**	**(0.878)**
Sales	-0.000***	-0.000***	-0.001***	-0.005***	**-0.001**	**-0.001***	**-0.001***	**-0.001**
	(0.001)	(0.000)	(0.000)	(0.000)	**(0.141)**	**(0.088)**	**(0.095)**	**(0.502)**
Stock Return	-0.002	-0.002	-0.002	-0.003**	**-0.010****	**-0.010****	**-0.009****	**-0.011***
	(0.199)	(0.213)	(0.199)	(0.045)	**(0.033)**	**(0.031)**	**(0.047)**	**(0.051)**
Tobin's Q	-0.003***	-0.003***	-0.003***	-0.006***	**-0.004*** **	**-0.004*** **	**-0.004*** **	**-0.008*** **
	(0.000)	(0.000)	(0.000)	(0.000)	**(0.000)**	**(0.000)**	**(0.000)**	**(0.000)**
Top 20 City	-0.000	-0.000	0.000	0.164***	**-0.001**	**0.000**	**-0.001**	**0.024**
	(0.642)	(0.953)	(0.990)	(0.000)	**(0.661)**	**(0.955)**	**(0.323)**	**(0.173)**
Debt/TA	-0.000	-0.000	0.000	-0.002	**-0.008***	**-0.010****	**-0.010****	**-0.006**
	(0.907)	(0.878)	(0.996)	(0.413)	**(0.058)**	**(0.040)**	**(0.032)**	**(0.528)**
Year F.E.	Yes	Yes	Yes	Yes	**Yes**	**Yes**	**Yes**	**Yes**
MSA F.E.	No	Yes	No	No	**No**	**Yes**	**No**	**No**
SIC F.E.	No	No	Yes	No	**No**	**No**	**Yes**	**No**
Firm F.E.	No	No	No	Yes	**No**	**No**	**No**	**Yes**
N	168,878	168,878	168,878	168,878	**9,333**	**9,333**	**9,333**	**9,333**
r^2	0.010	0.010	0.011	0.037	**0.019**	**0.041**	**0.028**	**0.230**

Table 9 – Fixed effects regression analysis for the total sample using dividend payer concentration within the MSA

This table provides the regression analysis of the data with the dependent variable being *CAR*. These regressions are representative of the time period from 1980 to 2011. The robust standard errors are clustered by MSA. Variable definitions are provided in Appendix I. The constant terms are omitted for brevity. *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			
	(1)	(2)	(3)	(4)	**(5)**	**(6)**	**(7)**	**(8)**	(9)	(10)	(11)	(12)
Senior Citizen	0.004**	0.004**	0.004**	0.003	**0.003*** **	**0.003*** **	**0.003** **	**0.003***	0.004	0.004	0.004	0.003
	(0.032)	(0.045)	(0.043)	(0.110)	**(0.008)**	**(0.006)**	**(0.019)**	**(0.056)**	(0.184)	(0.303)	(0.217)	(0.551)
State Rate	0.002	0.058	0.006	-0.019	**-0.017**	**0.022**	**-0.018**	**-0.058**	0.001	0.074	-0.005	0.056
	(0.957)	(0.181)	(0.824)	(0.697)	**(0.648)**	**(0.495)**	**(0.573)**	**(0.343)**	(0.984)	(0.342)	(0.938)	(0.584)
Cash/TA	0.003	0.002	0.001	0.006	**0.004**	**0.003**	**0.003**	**0.008**	0.001	-0.000	-0.001	0.004
	(0.582)	(0.709)	(0.845)	(0.554)	**(0.237)**	**(0.308)**	**(0.324)**	**(0.157)**	(0.885)	(0.994)	(0.946)	(0.809)
Ebitda/TA	0.106**	0.107**	0.103**	0.144**	**0.124*** **	**0.127*** **	**0.124*** **	**0.157*** **	0.107*	0.103*	0.097	0.147*
	(0.011)	(0.010)	(0.015)	(0.017)	**(0.000)**	**(0.000)**	**(0.000)**	**(0.000)**	(0.077)	(0.082)	(0.128)	(0.096)
Log(# of dividend firms)	-0.000	0.001	-0.000	0.001	**-0.001**	**-0.001**	**-0.001**	**-0.001**	0.001	0.003	0.001	0.003
	(0.757)	(0.731)	(0.866)	(0.809)	**(0.621)**	**(0.788)**	**(0.364)**	**(0.795)**	(0.743)	(0.363)	(0.566)	(0.320)
Log (pop.)	0.002*	0.005	0.002	-0.004	**0.003** **	**0.001**	**0.003** **	**-0.006**	0.001	0.008	-0.000	-0.010
	(0.052)	(0.511)	(0.174)	(0.658)	**(0.015)**	**(0.925)**	**(0.019)**	**(0.343)**	(0.561)	(0.493)	(0.922)	(0.607)
Sales	-0.001***	-0.001***	-0.001***	-0.005***	**-0.001**	**-0.001**	**-0.000**	**-0.005*** **	-0.001**	-0.001**	-0.001**	-0.004**
	(0.000)	(0.000)	(0.000)	(0.001)	**(0.232)**	**(0.173)**	**(0.541)**	**(0.004)**	(0.039)	(0.048)	(0.032)	(0.011)
Stock Return	-0.004**	-0.004*	-0.004*	-0.005	**-0.008*** **	**-0.008*** **	**-0.008*** **	**-0.011*** **	-0.002	-0.002	-0.003	-0.003
	(0.030)	(0.058)	(0.051)	(0.141)	**(0.003)**	**(0.003)**	**(0.001)**	**(0.000)**	(0.474)	(0.619)	(0.481)	(0.618)
Tobin's Q	-0.004***	-0.004***	-0.004***	-0.007***	**-0.005*** **	**-0.005*** **	**-0.005*** **	**-0.008*** **	-0.003**	-0.003**	-0.003**	-0.006***
	(0.000)	(0.000)	(0.000)	(0.000)	**(0.000)**	**(0.000)**	**(0.000)**	**(0.000)**	(0.020)	(0.021)	(0.032)	(0.007)
Top20City	-0.001	-0.001	-0.001	-0.082***	**-0.002***	**-0.001**	**-0.002**	**0.117*** **	-0.001	-0.000	-0.001	0.068***
	(0.246)	(0.404)	(0.132)	(0.000)	**(0.077)**	**(0.131)**	**(0.104)**	**(0.000)**	(0.446)	(0.790)	(0.469)	(0.000)
Debt/TA	0.000	-0.000	0.000	0.003	**-0.003**	**-0.004**	**-0.002**	**0.002**	0.000	-0.001	0.001	0.006
	(0.934)	(0.795)	(0.910)	(0.313)	**(0.463)**	**(0.425)**	**(0.554)**	**(0.644)**	(0.930)	(0.837)	(0.730)	(0.335)
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	28,245	28,245	28,245	28,245	**15,414**	**15,414**	**15,414**	**15,414**	12,831	12,831	12,831	12,831
r^2	0.011	0.013	0.014	0.082	**0.015**	**0.016**	**0.02**	**0.138**	0.013	0.017	0.018	0.106

Table 10 – Probit regression analysis including fixed effects for the dividend paying sub-sample

This table provides the probit regression analysis of the dividend paying sample with the dependent variable being a binary variable that takes the value of 1 if the firm increased dividend payouts with the year following the dividend initiation. These regressions are representative of the time period from 1980 to 2011. The standard errors are clustered by MSA. Variable definitions are provided 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.

	(1)	(2)	(3)	(4)
Senior Citizen	0.005 (0.923)	-0.016 (0.729)	-0.002 (0.963)	0.024 (0.447)
State Unemployment Rate	-1.175 (0.614)	-0.522 (0.726)	-0.721 (0.693)	-1.543 (0.134)
Cash/TA	0.157 (0.154)	0.211** (0.016)	0.158 (0.209)	1.136*** (0.000)
EBITDA/TA	8.241*** (0.000)	8.284*** (0.000)	8.774*** (0.000)	11.742*** (0.000)
Log(# of Firms)	-0.040 (0.466)	-0.070 (0.303)	-0.065 (0.120)	-0.129* (0.057)
Log(Population)	0.055 (0.387)	0.342 (0.108)	0.042 (0.355)	0.055 (0.628)
Sales	0.125*** (0.000)	0.126*** (0.000)	0.139*** (0.000)	0.154** (0.012)
Stock Return	0.104 (0.185)	0.097 (0.248)	0.137* (0.068)	0.014 (0.885)
Tobin's Q	0.104*** (0.001)	0.105*** (0.001)	0.062*** (0.007)	-0.095*** (0.000)
Top 20 City	-0.089*** (0.009)	-0.083** (0.047)	-0.009 (0.849)	-0.203 (0.474)
Total Debt/TA	-0.571*** (0.000)	-0.548*** (0.000)	-0.574*** (0.000)	-0.952*** (0.000)
constant	-2.322** (0.012)	-6.807** (0.044)	-1.701*** (0.010)	-1.082 (0.521)

Year Fixed Effects	Yes	Yes	Yes	Yes
MSA Fixed Effects	No	Yes	No	No
2-Digit SIC Fixed Effects	No	No	Yes	No
Firm Fixed Effects	No	No	No	Yes
N	15,414	15,414	15,405	12,831

Table 11 – Change in ROA fixed effects regression analysis for the dividend paying sub-sample

This table provides the regression analysis for the dividend paying sample where the dependent variable is the change in industry mean adjusted *EBITDA/TA* in the fiscal year of the dividend initiation from the industry mean adjusted *EBITDA/TA* of the previous year. These regressions are representative of the time period from 1980 to 2011. The standard errors are clustered by MSA. Variable definitions are provided 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.

	(1)	(2)	(3)	(4)
Senior Citizen	-0.001	-0.001	-0.002	0.001
	(0.432)	(0.468)	(0.107)	(0.627)
State Unemployment Rate	0.116***	0.179***	0.120***	0.136*
	(0.005)	(0.000)	(0.002)	(0.090)
Cash/TA	0.005	0.005	0.004	0.006
	(0.418)	(0.382)	(0.515)	(0.407)
EBITDA/TA	0.144***	0.143***	0.147***	0.173***
	(0.004)	(0.005)	(0.004)	(0.001)
Log(# of Firms)	0.002*	0.002	0.002	0.001
	(0.073)	(0.393)	(0.225)	(0.742)
Log(Population)	-0.001	0.010	-0.001	0.011
	(0.514)	(0.138)	(0.463)	(0.191)
Sales	0.002***	0.001***	0.002***	-0.003
	(0.000)	(0.000)	(0.000)	(0.121)
Stock Return	0.034***	0.034***	0.035***	0.032***
	(0.000)	(0.000)	(0.000)	(0.000)
Tobin's Q	-0.003***	-0.003***	-0.004***	-0.004***
	(0.001)	(0.001)	(0.000)	(0.000)
Top 20 City	-0.001	-0.001	0.000	0.033***
	(0.499)	(0.560)	(0.958)	(0.000)
Total Debt/TA	0.009***	0.009***	0.010***	0.035***
	(0.002)	(0.003)	(0.000)	(0.000)

constant	-0.031* (0.053)	-0.219** (0.029)	0.016 (0.414)	-0.239* (0.099)
Year Fixed Effects	Yes	Yes	Yes	Yes
MSA Fixed Effects	No	Yes	No	No
2-Digit SIC Fixed Effects	No	No	Yes	No
Firm Fixed Effects	No	No	No	Yes
N	13,439	13,439	13,439	13,439
r^2	0.066	0.068	0.079	0.245

Table 12 – Fixed effects regression analysis for the sub-sample of dividend paying firms across multiple event windows

This table provides the regression analysis of the data with the dependent variable being represented by multiple event windows. These regressions are representative of the time period from 1980 to 2011 and the sub-sample of dividend paying firms. All models below include entire set of control variables used in the prior analyses. The robust standard errors are clustered by MSA. Variable definitions are provided in Appendix I. The constant terms are omitted for brevity. *P*-values are reported in the parentheses underneath the coefficient estimates. ***, ** and * stand for statistical significance at the 1%, 5% and 10% levels, respectively.

	Market Adjusted CAR (-0, +0)				**Market Adjusted CAR (-1, +1)**				Market Adjusted CAR (-2, +2)			
	(1)	(2)	(3)	(4)	**(5)**	**(6)**	**(7)**	**(8)**	(9)	(10)	(11)	(12)
Senior Citizen	0.001***	0.001*	0.001***	0.001*	**0.002****	**0.002****	**0.002****	**0.003*****	0.001*	0.001	0.001	0.003**
	(0.003)	(0.051)	(0.004)	(0.053)	**(0.018)**	**(0.020)**	**(0.018)**	**(0.007)**	(0.077)	(0.300)	(0.200)	(0.029)
Control Variables	Yes	Yes	Yes	Yes	**Yes**	**Yes**	**Yes**	**Yes**	Yes	Yes	Yes	Yes
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	15,409	15,409	15,409	15,409	**15,412**	**15,412**	**15,412**	**15,412**	15,414	15,414	15,414	15,414
r^2	0.008	0.01	0.011	0.126	**0.009**	**0.011**	**0.014**	**0.131**	0.012	0.015	0.018	0.134