Strategic News Disclosure before Index Recompositions*

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Abstract: We investigate firms' disclosure behavior around index recompositions. Our evidence shows that firms moving up to the Russell 1000 disclose significantly more positive firm-initiated, discretionary news prior to index recompositions, as compared to a control group of non-moving firms. The disclosure strategy carries positive value implications for firms' market capitalization. Each additional news release increases the probability of successfully switching indexes by approximately one percent.

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Strategic Disclosure, Russell Index Recomposition, Regression Discontinuity, Passive Investors, Front Running.

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I. Introduction

The strategic use of corporate disclosure is a central theme in the accounting and finance literature. Prior research has identified several settings in which firms exploit the timing and content of information to influence stock prices. These include, among others, M&A transactions (Ahern and Sosyura 2014), stock repurchases (Brockman et al. 2008), seasoned equity offerings (Lang and Lundholm 2000) and CEO compensation awards (Aboody and Kasznik 2000; Edmans et al. 2015). Relatively little, however, is known about firms' disclosure behavior in the context of index recompositions.

In 2014, $2.1 trillion of total net assets were invested in index funds, with the net new cash flow having increased from $26 billion in 2000 to $148 billion in 2014 (Investment Company Institute, 2015). The growing popularity of passive funds has turned index recompositions into important corporate events. Being a member of a highly ranked index means more visibility and a broader investor base; thus, due to the prospect of increasing shareholder value, firms have incentives to move from a lower- to a higher-ranked index. This paper investigates whether firms favorably impact their position in an index by strategically disclosing more news prior to index recompositions.

Our analysis focuses on the disclosure behavior of firms moving from the lower-ranked Russell 2000 to the higher-ranked Russell 1000. We provide evidence that firms moving up to the Russell 1000 disclose significantly more positive firm-initiated, discretionary news before index recompositions, as compared to a control group of firms that fail to switch indexes. We further show that this disclosure strategy allows firms to temporarily run up stock prices. Each additional news release increases a firm's probability of favorably switching indexes by approximately one percent.

The economic intuition behind our results is as follows: Since membership in the Russell Index family is based on a firm's market capitalization only, favorably impacting index recompositions can best be achieved by news disclosure. Economic theory shows that the presence of information asymmetries increases a firm's bid-ask spread and, consequently, decreases its liquidity (Gloston and Milgrom 1985). The corresponding countermeasure is the disclosure of private information, which reduces information

asymmetries and, thus, increases a firm's market capitalization via a decrease in its cost of capital (Diamond and Verrecchia 1991).

The key difference from other indexes, such as the S&P 500, is that the determination of Russell Index membership is based on a single variable, a firm's market capitalization. Each year on the last trading day in May, Russell Investments ranks all eligible securities based on their market capitalization. The largest 1,000 firms become members of the Russell 1000, and the next 2,000 largest join the Russell 2000. The Russell 3000E includes the largest 4,000 firms. The determination of index weights and the actual index reconstitution take place on the last Friday in June. Because of this construction methodology, firms are able to impact the Russell Index recomposition process by initiating a temporary run-up in market capitalization.

To the best of our knowledge, this paper is the first comprehensive study on strategic corporate news disclosure in the context of index recompositions. Our paper offers economic and methodological contributions. First, it contributes to the literature on strategic corporate news disclosure by identifying a novel setting in which managers use discretionary news to temporarily run up stock prices. Our findings are interesting for researchers and investors, as they serve as an indicator to ex ante identify potential index movers. Second, we contribute to a recent string of literature that uses the setting of Russell Index recompositions as a quasi-natural experiment for regression discontinuity design (RDD) (e.g., Chang et al. 2015; Boone and White 2015; Fich et al. 2015). These studies assume that firms around the index cutoff are locally randomized, thus showing similar firm characteristics prior to index recompositions and differing only in terms of their index membership. Our results show differences in the disclosure behavior of moving and non-moving firms located just below the Russell 1000 Index cutoff.

The remainder of this paper is organized as follows: Section II reviews the prior literature and develops our hypothesis. Our data and variables are described in Section III. Section IV presents our research approach and empirical results. Analyses for the Russell 1000 Down-Movers are shown in Section V, while Section VI discusses implications for regression discontinuity designs. Section VII concludes.

II. Related Literature and Hypotheses

Several studies examine firms' disclosure behavior around major corporate events. Ahern and Sosyura (2014) find that acquirers in M&A transactions with stock payments increase the number of press releases during private merger negotiations to benefit from a temporary increase in their stock price when the stock exchange ratio is fixed. Brockman et al. (2008) show that firms manipulate voluntary disclosures to decrease stock prices prior to stock repurchasing activities. Over and above increasing the frequency of bad news disclosures, firms actively bias earnings announcements downwards. Lang and Lundholm (2000) provide evidence that firms significantly increase their discretionary news disclosure during the six months prior to the announcement of seasoned equity offerings, with the intention of lowering their cost of equity capital. Examining IPO prospectuses, Weiss Hanley and Hoberg (2012) find that issuers strategically substitute underpricing for disclosure as a hedge against litigation risk when the revealed information is of high proprietary value.

Strategic disclosure behavior has also been documented in the context of CEO compensation. Edmans et al. (2015) find that CEOs release five percent more discretionary news in equity vesting months in order to temporarily increase stock prices and, thus, profit from a higher compensation. Aboody and Kasznik (2000) provide evidence that CEOs delay good news and rush bad news prior to fixed scheduled stock option awards in order to lower the option strike price. Cheng and Lo (2006) show that managers time voluntary corporate disclosures in order to maximize profits from insider trading.

A recent strand of literature uses the setting of Russell Index recompositions for regression discontinuity designs. The argument is that firms around the index cutoff are mechanically placed into indexes; thus, they experience an exogenous shock in the demand of index tracking funds, which leads to a change in passive institutional ownership. Since Russell Indexes are value-weighted, firms at the top of the lower-ranked Russell 2000 receive considerably more index fund buying than do firms at the bottom of the higher-ranked Russell 1000. Chang et al. (2015) first identified the setting in their investigation of the price effects of indexing. Later studies use this setting to analyze the impact of institutional ownership on firm transparency and information

production (Boone and White 2015); monitoring activities of institutional investors in the context of acquisitions (Fich et al. 2015); payout policy (Crane et al. 2014); and corporate governance (Mullins 2014; Appel et al. 2016; Schmidt and Fahlenbrach 2015). Although the methodologies differ across the studies, the key assumption is the same: "*small and random*" (Chang et al. 2015, p. 215) changes in the end-of-May market capitalization of firms located around the index cutoff determine index assignments, with firms having "*imprecise control on which side of the cutoff they end up on*" (Chang et al. 2015, p. 218). In other words, firms are locally randomized around the index cutoff point and do not self-select into indexes.

As part of their efforts to justify the assumption of local randomization around the Russell 1000 cutoff, Chang et al. (2015) express concern that firms may decrease their market capitalization in order to avoid moving up to the bottom of the Russell 1000. The intuition is that firms located at the top of the Russell 2000 experience more benefits from index-tracking than do firms located at the bottom of the Russell 1000. However, a firm's ultimate goal is shareholder wealth maximization, which this strategy does not achieve. Rather, it can be accomplished via membership in the higher-ranked Russell 1000, which is accompanied by more visibility and access to a broader investor base. In the long run, firms will grow, thereby increasing their index weight and reducing the initial disadvantage of lower index-tracking. Thus, firms have incentives to become members of higher-ranked indexes. Anecdotal evidence supports our line of argument: For example, when Isis Pharmaceuticals, Inc. was added to the Russell 1000 in 2015, its management announced that it was "*pleased to be added to this important index, which helps to raise awareness of our company even more broadly among investors*" (http://goo.gl/X1wfq5).

Before index recompositions, firms are able to estimate their daily index rank based on publicly available market capitalization data. This allows firms to assess the likelihood of an index switch and whether it is worthwhile to strategically run up their market capitalization. One concern may be that the market capitalization measure that Russell Investments uses to determine index membership is proprietary, making it potentially difficult for firms to predict their chances of switching indexes. However, while Russell Investments uses a proprietary float-adjusted market capitalization measure to determine index weights, it does not adjust its proprietary market capitalization

measure when assigning firms to indexes. Moreover, Russell Investments advertises its indexes as "transparent and predictable" (Russell Investments, August 2015). Chang et al. (2015) point out that "it is easy to predict membership using market capitalizations calculated from publicly available data" (p. 215). Thus, the proprietary nature of Russell Investment's index recomposition variable is unlikely to be of concern in our setting.

To temporarily boost their market capitalization and, thus, increase their chances of a beneficial index assignment, firms must increase their stock price. In this context, strategic news disclosure presents an attractive option. Economic theory suggests that information asymmetries reduce a security's liquidity via larger bid-ask spreads (Gloston and Milgrom 1985). This effect can be mitigated by disclosing private information. This, in turn, leads to a decrease in the existent information asymmetries and, consequently, increases a firm's market capitalization via a decrease in its cost of capital (Diamond and Verrecchia 1991). Consistent with this prediction, it has been shown empirically that firms committing to higher levels of disclosure quality experience lower bid-ask spreads and higher share turnover (Leuz and Verrecchia 2000). Moreover, voluntary disclosure increases liquidity and firm value (Balakrishnan et al. 2014). As Edmans et al. (2015) point out, an alternative channel is additional disclosures that attract the attention of individual investors (Barber and Odean 2008). This temporary increase in investor attention leads to a significant short-term increase in prices (Da et al. 2011). Consequently, firms have the incentive and the ability to impact index recompositions.

So far, we have argued that firms can influence their market capitalization via news disclosure. We now elaborate on the strategic component. While U.S. federal law places strict requirements on the disclosure of periodic filings and material corporate events, firms enjoy considerable flexibility regarding the timing and content of other news releases.[1] In our setting, the timing of mandatory news is unlikely to be the main tool of strategic disclosure activities because the target date in our analysis is the same for each firm. If all firms were to boost their market capitalization just a few days before the index recomposition, the effects would cancel out. Instead, we expect firms to start

[1] For more information on the legal background of firm disclosures, see Ahern, K. R. and Sosyura, D. Internet Appendix for "Who Writes the News? Corporate Press Releases During Merger Negotiations." *Journal of Finance* DOI: 10.1111/jofi.12109.

disclosing news several weeks before the index recomposition. In this context, *firm-initiated, discretionary* news releases are the most effective tool to temporarily run up stock prices. Here, firm-initiated news refers to corporate press releases and filings rather than to publications from external sources; and discretionary means that management has the most discretion in terms of the timing and content of news releases. Given that firms that move to the higher-ranked index have achieved their goal of favorably switching indexes, we expect these firms to disclose more positive firm-initiated, discretionary news prior to index recompositions, as compared to a control group of non-switching firms.

Hypothesis 1: *Firms moving up from the Russell 2000 to the Russell 1000 disclose more positive discretionary news before index recompositions, as compared to a control group of non-moving firms.*

A crucial question in our setting is whether strategic disclosure leads to an economically significant increase in a firm's probability of switching indexes. Fundamental firm characteristics are unarguably the dominant driver of index switches. However, given that the difference in market capitalization of two firms located at neighboring index positions is marginal, small changes in market capitalization can decide whether or not a firm switches indexes. For example, on the last trading day in May 2013, the relative difference in market capitalization of the firms ranked 1000 and 1001 was only 0.06 percent. Therefore, small changes in market capitalization can decide index assignment.

Hypothesis 2: *Strategic news disclosure prior to index recompositions increases firms' probability of successfully switching indexes.*

III. Data and Variables

Russell Index Membership

Russell Investments provides us with the monthly index constituents, the proprietary index weights and the proprietary market capitalization measure. Our sample period spans over eight years, from 2007 through 2014. Prior to 2007, index recompositions were based on a hard cutoff point. With the newly introduced +/- 2.5 percent band

around the index cutoff points, Russell Investments intends to reduce index turnover, thus making it more difficult for firms to anticipate index switches.

Our paper focuses on the index cutoff between the Russell 1000 and the Russell 2000—i.e., the index rank 1000. We investigate our hypotheses by analyzing the disclosure behavior of two groups: *Up-Movers* and *Up-Candidates*. Firms that successfully switched from the lower-ranked Russell 2000 to the higher-ranked Russell 1000 are labeled *Up-Movers*. Firms located just below the Russell 1000 cutoff are labeled *Up-Candidates*. This group consists of firms that seemed likely to move up to the higher-ranked index but failed. The groups of *Up-Movers* and *Up-Candidates* are mutually exclusive.

We construct an indicator variable for each group. *Up-Movers* are ex-post identified based on the index constituents list provided by Russell Investments—i.e., based on the actual index assignments. The group of *Up-Candidates* is constructed based on a firm's index rank—i.e., the distance to the Russell 1000 cutoff point. More specifically, we calculate a firm's rank by sorting the proprietary Russell market capitalization of all Russell 3000E members on the last trading day in February of each year. This allows us to identify the most promising candidates for an index switch ex ante—i.e., 100 days before the index recomposition. We define *Up-Candidates* ex ante because we expect the strategic corporate disclosure activities to start several weeks or even months before the date of the index recomposition. This approach allows us to observe how the disclosure activities of actual movers develop in comparison to those of potential movers. We specifically do not choose a later date, such as March, as we may not capture an important portion of the firms' strategic news activities, the yearly reporting period.

Next, we apply the concept of bandwidths used in regression discontinuity designs to define the range in which a firm's rank must be located in order for it to be defined as an *Up-Candidate*. In our main analyses, we apply a bandwidth of 300, which implies choosing 150 firms located just above and 150 firms located just below the index cutoff. Our control group for *Up-Movers* consists of *Up-Candidates*—i.e., the 150 firms located just below the Russell 1000 cutoff. For robustness purposes, we re-estimate our analyses using a bandwidth of 100. All results hold. Figure 1 portrays our variable construction process, and Appendix C provides variable definitions.

[Insert Figure 1 about here]

Strategic News Disclosure

News data are obtained from the S&P Capital IQ Key Developments database. The database contains structured and summarized corporate news releases compiled from over 20,000 sources. The key advantage of Capital IQ Key Developments is that it allows us to cleanly categorize the source and type of each news item. We match its daily news data with the monthly Russell Index data to create a daily firm-news panel.

As a first step, we retain firm-initiated news only. In a second step, we split our sample into discretionary and non-discretionary news items in order to identify news types over which the management has the most discretion and can, thus, best exploit in a strategic manner. As in Edmans et al. (2015), conference presentation calls, earnings calls, client announcements and expected earnings release dates are the discretionary news items with the highest frequency. Announcements of earnings and annual general meetings are the non-discretionary news items that occur most frequently (see Appendix D). Cohen et al. (2013) show that firms strategically organize conference calls by calling primarily more-optimistic analysts in order to hide bad news. Next, we count the number of discretionary and non-discretionary news items disclosed on a given day and compute the average items over our time period. Moreover, we compute the cumulative abnormal returns and abnormal trading volume around each news item.

Control Variables

We obtain accounting data from Compustat North America, market data from CRSP and analyst forecast data from I/B/E/S. *Firm Size* is the log of book value of total assets; *Return on Assets (ROA)* is calculated as operating income before depreciation divided by total assets; and *Book Leverage* is defined as the sum of current liabilities and long-term debt scaled by total assets. *Tobin's Q* is the sum of common equity and market equity minus total assets scaled by total assets; *# Analysts* is the log of one plus the number of

analysts following a particular stock; and *Stock Turnover* is measured as the daily trading volume divided by the average number of shares outstanding over the Russell year. *EA Day*, *AGM Day* and *Board Meeting Day* are indicator variables taking on a value of one whenever an earnings announcement date, an annual general meeting or a board meeting takes place, and zero otherwise.

IV. Evidence on Firms' Strategic Disclosure Behavior

Summary Statistics

Summary statistics, as a snapshot on the last trading day in May, are reported in Table 1. *Up-Movers* (2.74 billion USD) and *Up-Candidates* (1.58 billion USD) differ significantly in terms of their market capitalization. Unreported statistics show that firms leaving the Russell 1000 (*Down-Movers*) and firms at risk of switching to the lower-ranked Russell 2000 (*Down-Candidates*) have an average market capitalization of 0.92 and 2.13 billion USD, respectively. Hence, the average market capitalization of *all* candidates located within a bandwidth of 300 firms around the Russell 1000 cutoff is 1.85 billion USD. This is consistent with Boone and White (2015), who report an average market capitalization of 1.9 billion USD for firms located within a bandwidth of 200 around the Russell 1000 cutoff. The same applies to movers with an average market capitalization of 1.83 billion USD.

Up-Movers and *Up-Candidates* do not exhibit a significant difference in their mean and median firm size as measured by total assets. Thus, while the market value of *Up-Movers* is larger than that of *Up-Candidates*, both groups do not significantly differ in terms of their book value. On average, as compared with *Up-Candidates*, *Up-Movers* are more profitable, have a higher Tobin's Q, have more analysts following their stock and experience higher stock turnover. This is in line with index recompositions being driven primarily by fundamental firm characteristics. However, during the month of May, *Up-Movers* disclose, on average, more news than *Up-Candidates* release. This provides a first indication that the disclosure behavior of both groups differs before index recompositions.

[Insert Table 1 about here]

Cumulative Abnormal Discretionary News Disclosure

Throughout the paper, we differentiate among three time periods: *before*, *between* and *after*. The time period *before* captures the 100 days leading up to the index recomposition on the last trading day in May. *Between* refers to the time period between the index recomposition and the index reconstitution on the last Friday in June. The time period *after* consists of the 100 days following the index reconstitution date. If *Up-Movers* strategically disclose news to favorably impact index assignments, we expect to observe a slowdown in news publications. The intuition is that managers can strategically exploit the timing and content of discretionary news. As such, favorable news will be published in the *before* period. Less and less-favorable news will be released in the *between* and *after* periods.

Figure 2 plots the cumulative, abnormal discretionary news production of *Up-Movers* and *Up-Candidates* before index recompositions. The abnormal component in news disclosure is calculated relative to a firm's disclosure behavior in the prior year (see Ahern and Sosyura 2014). For ease of comparison, we normalize our news measure to 100 days before the index recomposition. Figure 2 provides graphical evidence for our first hypothesis. *Up-Movers* disclose more discretionary news than *Up-Candidates* disclose during the *before* period. The difference in disclosure behavior starts approximately 80 days before the index recomposition and gradually increases until the last trading day in May. The pattern in disclosure behavior also supports our choice of defining *Up-Candidates* 100 days before the index recomposition.

[Insert Figure 2 about here]

Figure 3 plots both groups' cumulative, abnormal news production over our three time periods: *before*, *between* and *after*. The graphical analysis indicates that after index memberships are assigned on the last trading day in May, the news production of *Up-*

Movers approximately parallels that of *Up-Candidates*. A drastic divergence in news disclosure, as observed during the *before* period, is not visible in the *between* and *after* periods.

[Insert Figure 3 about here]

Discretionary News Disclosure

In order to assess whether the visually observed difference in disclosure behavior is statistically significant, we perform univariate *t*-tests. The analysis confirms the pattern observed in Figures 2 and 3. Table 2 reports the groups' average news publication during the three time periods and the respective *t*-tests (Panel A). Prior to the index recomposition date, *Up-Movers* disclose significantly more news than do *Up-Candidates*. Both groups experience a slowdown in news publication during the *between* and *after* periods. This slowdown is larger for *Up-Movers* when comparing the *before* and *after* periods. While 4.25 news releases during the *before* period may seem small, one must keep in mind that this number reflects the average firm-initiated news only. Newspaper articles and publications in other external sources are not included in our news measure. Moreover, one disclosure can include multiple items of information.

In Panels B and C of Table 2, we differentiate between discretionary and non-discretionary news items. The majority of news releases are driven by discretionary disclosures—3.72 discretionary versus only 0.53 non-discretionary disclosures. The pattern is similar for both news types. During the *before* period, *Up-Movers* disclose significantly more discretionary and non-discretionary news than do *Up-Candidates*. However, the difference in disclosure behavior is larger and statistically more significant for discretionary news. Both groups experience a slowdown in news publications during the *between* and *after* periods. Overall, the univariate analysis supports our first hypothesis: *Up-Movers* disclose significantly more news than *Up-Candidates* disclose prior to index recompositions. The majority of news releases are

firm-initiated, discretionary disclosures, which slow down immediately after index membership is assigned.

[Insert Table 2 about here]

Abnormal Returns and Trading Volume

This section analyzes the stock market effects of news publication. We hypothesize that firms strategically disclose positive news in order to favorably impact their index assignment. Hence, the disclosure activities should have an increasing effect on firms' market capitalization. We compute cumulative abnormal returns and the abnormal trading volume around each news item. Cumulative abnormal returns (CAR) are calculated by applying the market model, a three-day event window, and an estimation window of 255 days ending on the 91st day before index recomposition. The abnormal trading volume is defined as the excess volume relative to the average trading volume over an estimation window of 40 days.

Table 3 reports the event study's results for all news. The benchmark group consists of the remaining firms in the Russell 2000. During the 100 days before the index recomposition, *Up-Movers* experience a significantly positive three-day CAR of, on average, 56 basis points per news. The CAR per news for *Up-Candidates* is significantly negative and small, with minus 18 basis points. The difference in CARs is highly statistically significant. One explanation for our results is that investors may identify and buy stocks that are likely to switch indexes in advance and then sell them after the reconstitution date, thus benefiting from the increased demand. When the last trading day in May is approaching, investors will allocate their money to *Up-Movers*, selling the February *Up-Candidates*, which are no longer likely to switch indexes.

The abnormal trading volume supports this argument, showing that both *Up-Movers* and *Up-Candidate*s experience significantly positive abnormal trading volume in the *before* period. Consistent with the slowdown in news disclosure reported in Figure 3 and Table 2, *Up-Movers* experience statistically insignificant CARs during the *between*

and *after* periods. The CARs of *Up-Movers* and *Up-Candidates* are no longer significantly different in the subsequent time periods. As the *before* period coincides with the reporting season for most firms, we re-estimate our analysis, controlling for key reporting events such as earnings announcement dates (*EA Day*), annual general meetings (*AGM Day*) and board meetings (*Board Day*). Panel B shows that the results are robust.

[Insert Table 3 about here]

Table 4 further extends our CAR analysis and reports the event study divided by news type. We do not use control variables in this analysis because *EA Day*, *AGM Day* and *Board Day* are non-discretionary news. Prior to the index recomposition, the CARs of *Up-Movers* are significantly positive for both discretionary and non-discretionary news. *Up-Candidates* experience significantly negative CARs, which are substantially smaller than those of *Up-Movers*. During the *between* period, *Up-Movers* exhibit a decline in their CARs. The CARs for discretionary news are insignificant and no longer differ from those of *Up-Candidates*. The non-discretionary news generates marginally significant and negative CARs, which are lower than the CARs of *Up-Candidates*. In the *after* period, both groups experience insignificant CARs. A back-of-the-envelope calculation shows that an additional discretionary news item can, *on average*, increase the market capitalization of the firm ranked 1001 by approximately 37.5 million USD. This increase allows the firm to move up more than ten ranks and switch from the Russell 2000 to the Russell 1000 Index. Overall, the event study shows that *Up-Movers* experience significantly positive CARs and supports our first hypothesis that *Up-Movers* disclose significantly more positive firm-initiated, discretionary news as compared to a control group of non-moving firms.

[Insert Table 4 about here]

Probit Analysis

We have provided evidence that *Up-Movers* strategically disclose news prior to index recompositions and that this strategy is associated with an increase in market capitalization. This section investigates whether the disclosure behavior leads to an economically significant increase in the probability of index switches. We estimate the probit model P(Mover = 1 | News Disclosure) over the *before* period. Model (1) regresses *all* news items on index additions to the Russell 1000 (Mover). Fundamental firm characteristics are added into model (2). Models (3) and (4) analyze the effects separately for discretionary and non-discretionary news items. Table 5 shows that only discretionary news items significantly impact the probability of index switches. The publication of one discretionary news item increases the probability of an index switch by 0.8 percent. Given that *Up-Movers* disclose, on average, 3.7 discretionary news items before index recompositions, firms can increase their probability of moving to the Russell 1000 by approximately 3.0 percent. In comparison, one additional analyst following the firm also increases the probability by 3.0 percent. The effect for firm characteristics is substantially larger, which is consistent with fundamentals being—unsurprisingly—the main driver of index assignments.

[Insert Table 5 about here]

V. Russell 1000 Down-Movers

This section re-estimates our analyses for firms that leave the Russell 1000 (*Down-Movers*) or are at risk of moving down (*Down-Candidates*) from the Russell 1000 to the Russell 2000. Given that *Down-Movers* fail to stay in the higher-ranked index, we would not expect these firms to successfully engage in strategic news disclosure. Figures 5 and 6 plot the cumulative abnormal firm-initiated discretionary news production for both groups. The graphs provide initial evidence that, in contrast to *Up-Movers* and *Up-*

Candidates, *Down-Movers* and *Down-Candidates* do not seem to drastically differ in terms of their disclosure behavior.

[Insert Figure 4 and 5 about here]

The univariate analysis in Table 6 supports our graphical analysis. The difference in disclosure behavior is insignificant in the *before* and *between* periods. In the *after* period, *Down-Movers* disclose significantly less news compared to *Down-Candidates*. The results further show that news disclosure by both groups slows down after the index recomposition. The intuition behind our results is as follows: Index recompositions are driven primarily by fundamental factors. Given that both groups are leaving or are at risk of leaving the Russell 1000, they are unlikely to perform well. Consequently, as compared to *Up-Movers*, *Down-Movers* in particular have fewer positive news releases that can be placed strategically. Moreover, based on a cost-benefit analysis, it may simply not be worthwhile for such firms to engage in strategic news disclosure, as they are directly competing with *Up-Movers* and *Up-Candidates* for positions in the Russell 1000. Unreported summary statistics support our intuition and show that *Down-Movers* and *Down-Candidates* are less profitable and have higher leverage and fewer analysts following than either *Up-Movers* or *Up-Candidates*. In line with our expectation, an unreported *t*-test reveals that *Up-Movers* publish significantly more firm-initiated, discretionary news than *Down-Movers* do (0.45, p-value: 0.0006).

[Insert Table 6 about here]

Table 7 reports the stock return and trading volume analyses. Table 7, Panel A shows that the CARs for *Down-Movers* are insignificant before the index recomposition. *Down-Candidates* earn significantly positive CARs during the *before* period, but the magnitude is relatively low, with only 34 basis points. The difference between the two groups is

statistically significant. The results hold when adding control variables. Moreover, unreported results show that the CARs for *Down-Movers* are insignificant for discretionary and non-discretionary firm-initiated news in the *before* period.

[Insert Table 7 about here]

Finally, we re-estimate our probit analysis. The results are in line with our expectation. News disclosure does not significantly positively impact the probability of staying in the higher-ranked index. This does not seem surprising, given that the news disclosure activities of both groups are rather low. Fundamental firm characteristics, such as firm size and Tobin's Q, reduce the probability of unfavorably switching indexes by 16.9 and 12.7 percent, respectively. Similar to the analysis of *Up-Movers* and *Up-Candidates*, an additional analyst following the firm reduces the probability of leaving the index by 3.1 percent. Consequently, *Down-Movers* have fewer, if any, possibilities to disclose positive news, leaving little space for strategic news disclosure. Overall, our results are not in line with the argument that firms have incentives to move to the lower-ranked index because of increased benefits from index tracking (e.g., Chang et al. 2015). If this were the case, we would expect to see *Down-Movers* disclosing significantly negative and, in general, less news as compared to a control group.

VI. Implications for Regression Discontinuity Designs

In this section, we briefly discuss the implications of our findings for regression discontinuity designs in the context of the Russell Index recomposition. The key assumption of these studies is the local randomization of firms around the index cutoff. The validity of this assumption depends on the degree to which firms are able to manipulate the assignment variable—i.e., their market capitalization.

Our results show that *Up-Movers* disclose significantly more firm-initiated, discretionary news during the 100 days leading up to the index recomposition, as

compared to a control group, and that this disclosure behavior has positive value implications. Consequently, we highlight the implicit trade-off when choosing an appropriate bandwidth in these RDD studies. While a smaller bandwidth captures only those firms that are very closely located around the index cutoff—i.e., firms to which the local randomization is most likely to apply—it comes at the price of restricting the sample to relatively fewer observations, potentially reducing the results' external validity. Hence, a number of researchers have increased the bandwidth in order to cover more firms in their analysis. Yet this bandwidth increase also comes at a price. The larger the chosen bandwidth, the more firms that are included in the analysis—firms that try to have some, but not precise, control over the assignment variable—i.e., their market capitalization. Therefore, our results highlight the importance of the bandwidth selection in regression discontinuity designs around the Russell Index cutoff after 2007.

VII. Conclusion

This paper investigates strategic news disclosure around Russell Index recompositions. We provide evidence that, compared with a control group of non-moving firms, firms that successfully switch indexes release significantly more positive firm-initiated, discretionary news prior to index recompositions. This disclosure strategy has positive value implications, enabling moving firms to temporarily boost their market capitalization. Moreover, we show that each additional news publication increases the probability of switching indexes by approximately one percent. Our analyses of firms leaving the Russell 1000 further support the validity of our results. Firms that unfavorably switch indexes do not disclose significantly more firm-initiated discretionary news than the control group reveals. In addition, news disclosures do not significantly increase the probability of staying in the higher-ranked index. Further, the results are not in line with the argument that firms have incentives to move from the higher-ranked to the lower-ranked index. We do not observe that firms leaving the Russell 1000 strategically disclose either less or more negative news than the control group discloses.

It must, however, be noted that our findings are limited to indexes that are recomposed based on securities' market capitalization. We cannot make any statement about indexes, such as the S&P 500, whose reconstitution criteria are based on additional or other criteria.

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Figure 1:

Construction of control group (Candidates)

This figure illustrates the construction of our control group, *Up-Candidates*, for a Russell 1000 inclusion. Following the literature on regression discontinuity designs around the Russell 1000 index cutoff, candidates are defined based on bandwidths, i.e., distance from the rank 1000. Candidates that are located below the rank 1000 are labeled *Up-Candidates*. These firms were likely to move up to the Russell 1000 but failed. Vice versa, candidates located above the rank 1000 are labeled as *Down-Candidates*. These firms were at risk of leaving the Russell 1000 but succeeded to stay. A bandwidth of 300 is used in our main analyses. For robustness purposes, we replicate all tests applying a bandwidth of 100. Note that the definition of movers is not based on ranks but ex-post on the Russell index constituents list. Candidates, however, are ex-ante classified, based on their rank on the last trading day in February.

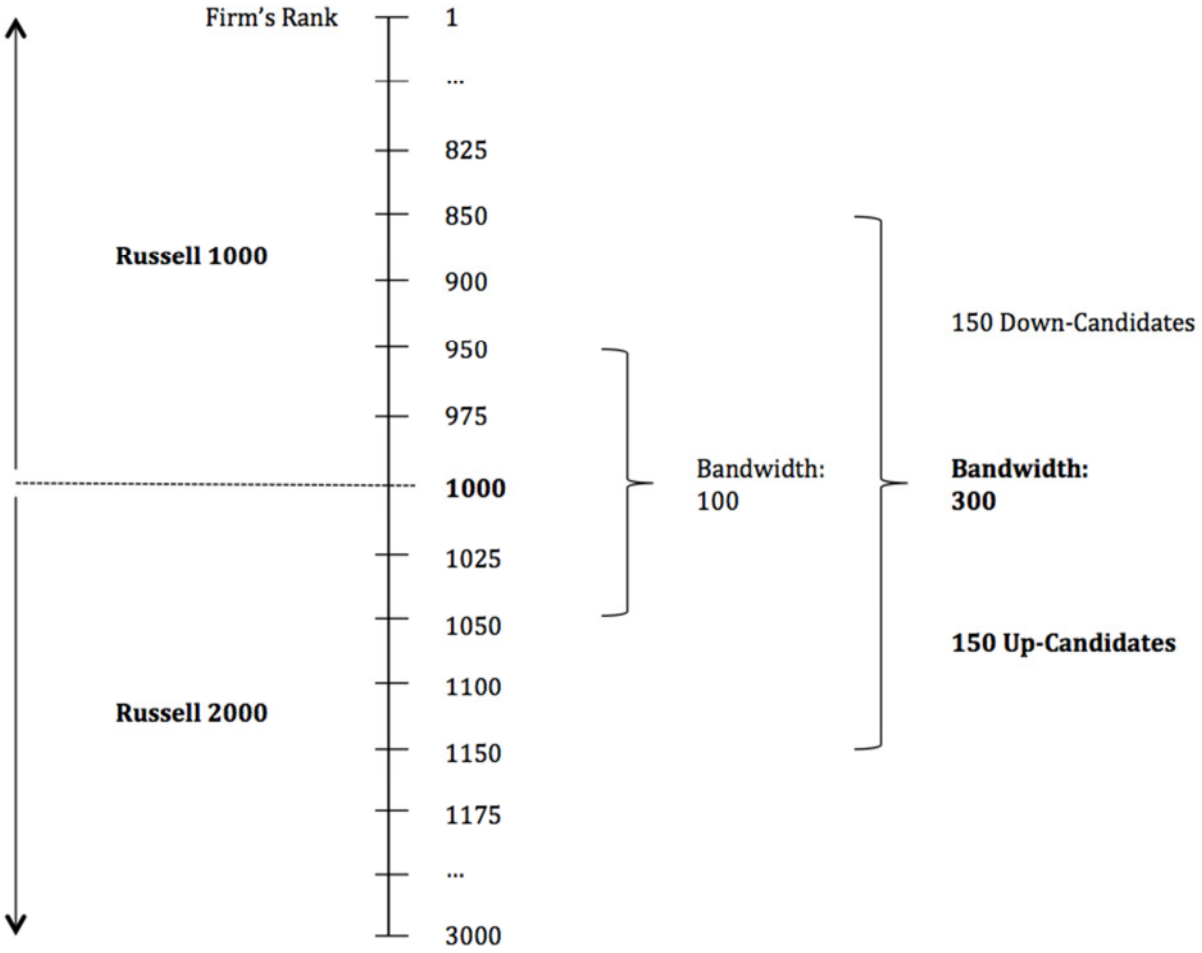

Figure 2:

Cumulative Abnormal Discretionary News Disclosure before Index Recompositions

This graph plots the cumulative, abnormal discretionary news production of *Up-Movers* and *Up-Candidates* prior to the day of the index recomposition. For the ease of comparison we normalize our news measure to zero 100 days before the index recomposition. We then cumulate the abnormal number of news over time (Ahern and Sosyura 2014). The abnormal component in news releases is measured relative to a firm's news production over the same time period in the previous year. Firm-initiated news releases refer to news items published by the respective firm and not an external source. Discretionary news releases are news items over which the management has discretion in terms on content and timing (Edmans, 2015). The sample period is from 2007 through 2014. A bandwidth of 300 applies for *Up-Candidates.*

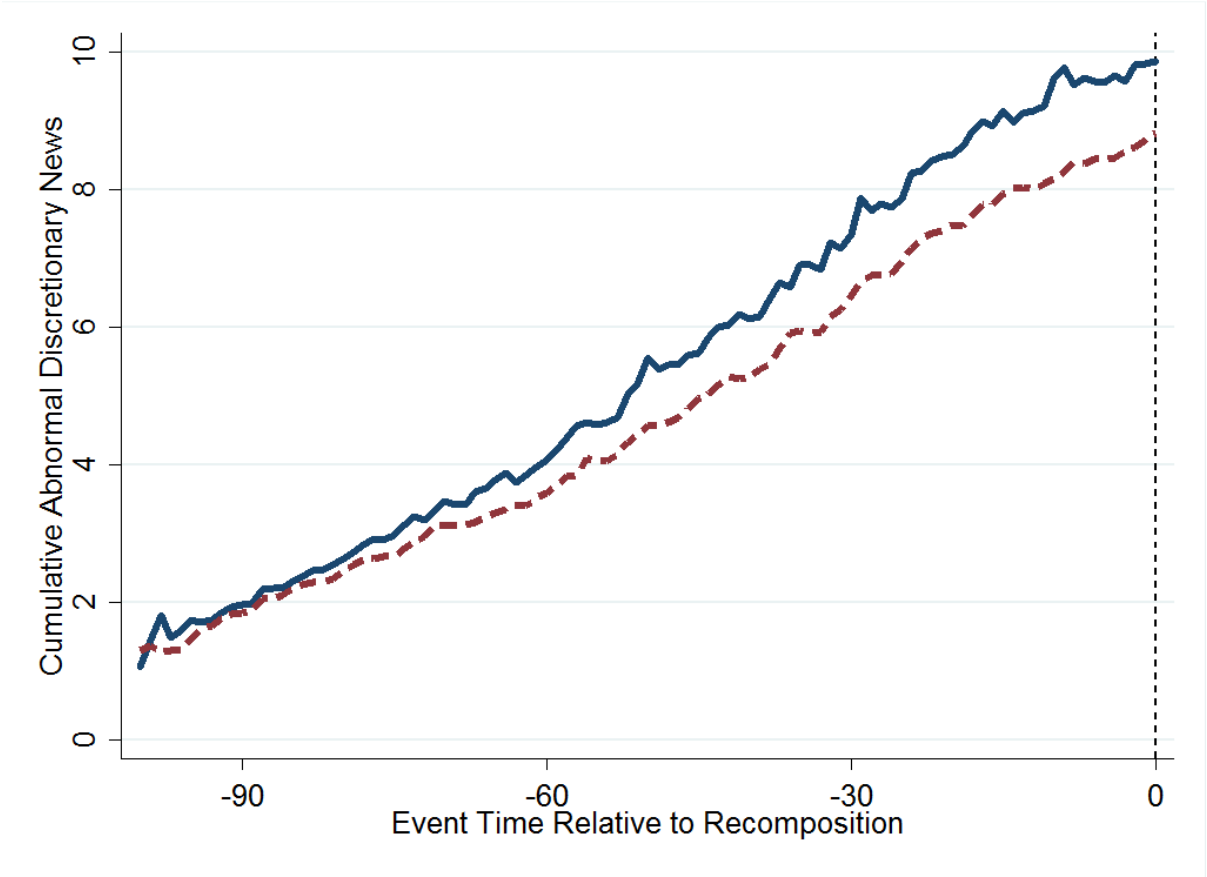

Figure 3:

Cumulative Abnormal Discretionary News Disclosure around Index Recompositions

As in Figure 2, this graph plots the normalized, cumulative, abnormal discretionary news production of *Up-Movers* and *Up-Candidates* over our three time periods. The time period *before* refers to the 100 days leading up to the index recomposition on the last trading day in May. The time period *between* covers the 30 days between the index recomposition and the index reconstitution on the last Friday in June. The time period *after* spans over 100 days following the index reconstitution. The sample period is from 2007 through 2014. A bandwidth of 300 applies for *Up-Candidates.*

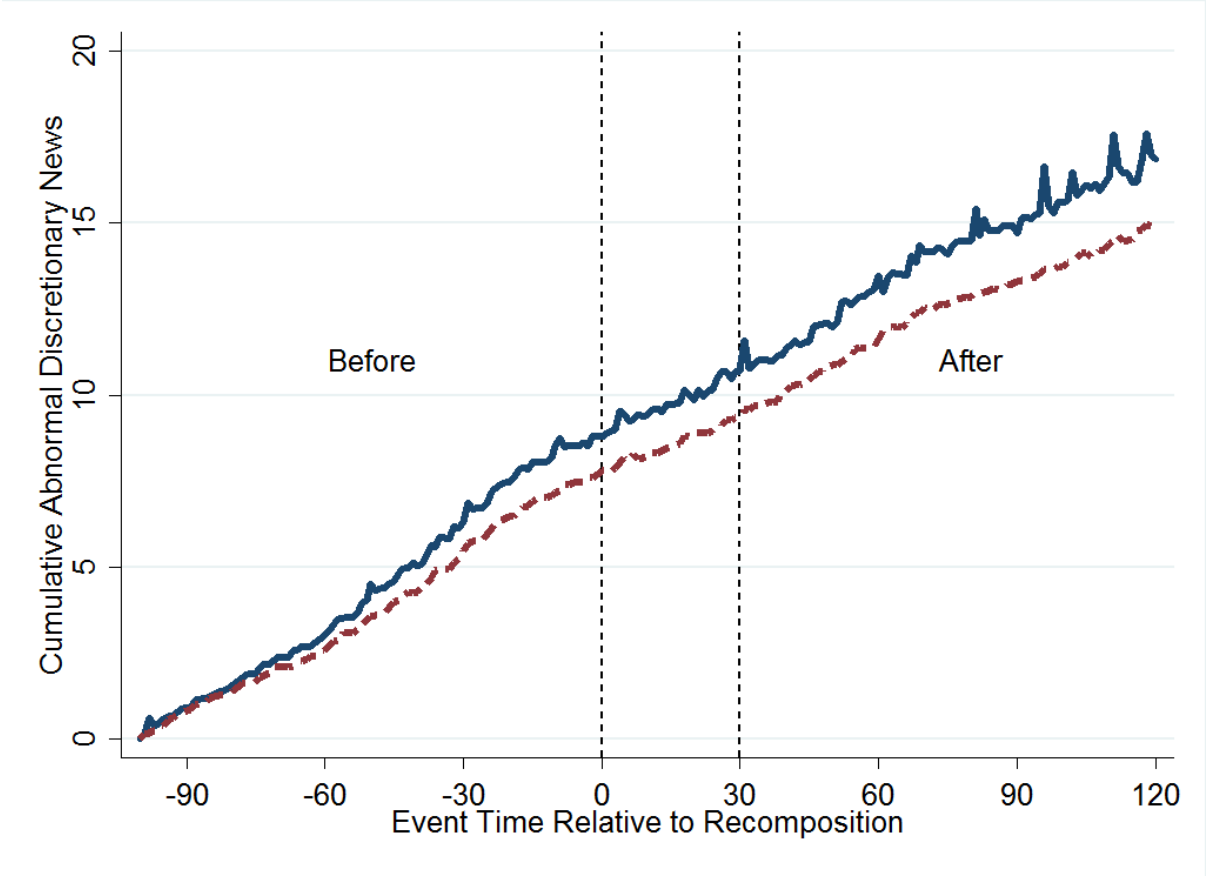

Table 1:

Summary Statistics

This table reports the summary statistics for *Up-Movers* and *Up-Candidates* around the Russell 1000 cutoff. The summary statistics present a snapshot of the variables on the index recomposition date - i.e., the last trading day in May. *Market Value* is the market capitalization measured in billons, *Firm Size* is the book value of total assets measured in billions and *Return on Assets* is defined as operating income before depreciation divided by total assets. *Book Leverage* is the sum of current liabilities and long-term debt scaled by total assets and, *Tobin's Q* is calculates as the sum of common equity and market equity minus total assets, scaled by total assets. *# Analysts* is the log of one plus the number of analysts following a particular stock and *Stock Turnover* is computed as the daily trading volume divided by the average number of shares outstanding over the Russell year. The sample period is from 2007 through 2014. A bandwidth of 300 applies for *Up-Candidates.*

	Up-Movers			Up-Candidates			Differences			
	Mean	Median	SD	Mean	Median	SD	Mean Diff		Median Diff	
Market Value (B USD)	2.74	2.65	1.18	1.58	1.56	0.46	1.16	***	1.09	***
Firm Size (B USD)	3.84	2.05	5.73	3.46	1.90	4.79	0.38		0.14	
Return on Assets (%)	3.87	3.71	3.59	2.98	2.82	2.74	0.88	***	0.89	***
Book Leverage (%)	25.85	21.26	22.05	24.01	20.93	20.49	1.83		0.33	
Tobin's Q	2.77	2.00	2.07	1.85	1.44	1.21	0.92	***	0.56	***
Analysts Following	10.17	10.00	5.75	8.67	8.00	5.00	1.51	***	2.00	***
Stock Turnover (%)	18.88	14.89	12.32	13.43	10.44	9.76	5.46	***	4.46	***
Cumulative Abnormal Discretionary News	9.87	9.00	5.64	8.70	7.63	5.01	1.17	***	1.37	***

Table 2:

Discretionary News Disclosure

This table reports univariate *t*-tests of *Up-Candidates'* and *Up-Movers'* average news disclosure over our three time periods. The time period *before* refers to the 100 days leading up to the index recomposition on the last trading day in May. The time period *between* covers the 30 days between the index recomposition and the index reconstitution on the last Friday in June. The time period *after* spans over 100 days following the index reconstitution. News disclosure is measured as the count of daily firm-initiated news items averaged over the three time periods. Panel A refers to all firm-initiated news items. Panel B and Panel C refer to discretionary (*Dis*) and non-discretionary (*Non-Dis*) firm-initiated news items, respectively. The sample period is from 2007 through 2014. A bandwidth of 300 applies for *Up-Candidates. p*-values are presented in parentheses. Significance at the 0.01, 0.05, and 0.10 levels is indicated by ***, **, and *.

	Before	Between	After	Differences	
	(1)	(2)	(3)	(2) - (1)	(3) - (1)
Panel A: All News Items					
Up-Candidates (C)	3.72	2.87	2.83	-0.85 ***	-0.88 ***
				0.000	0.000
Up-Movers (M)	4.25	3.18	2.94	-1.07 ***	-1.28 ***
				0.000	0.000
(M) - (C)	0.53 ***	0.31	0.11	-0.22	-0.40 ***
	0.000	0.115	0.160	0.349	0.002
Panel B: Dis News Items					
Up-Candidates (C)	3.23	2.70	2.58	-0.53 ***	-0.65 ***
				0.000	0.000
Up-Movers (M)	3.72	2.95	2.69	-0.77 ***	-1.00 ***
				0.001	0.000
(M) - (C)	0.49 ***	0.25	0.11	-0.24	-0.35 ***
	0.000	0.189	0.135	0.283	0.005
Panel C: Non-Dis News Items					
Up-Candidates (C)	0.49	0.17	0.25	-0.32 ***	-0.23 ***
				0.000	0.000
Up-Movers (M)	0.53	0.23	0.25	-0.30 ***	-0.28 ***
				0.000	0.000
(M) - (C)	0.04 *	0.06 *	0.00	0.02	-0.05 *
	0.082	0.073	0.891	0.618	0.074

Table 3:Abnormal Returns and Volumes (All News)

This table reports event study results around index recompositions. Cumulative abnormal returns (CAR) and abnormal trading volume (AV) are computed for each firm-initiated news release employing an event window of [-1,1] days. Cumulative abnormal returns are calculated using the market model and an estimation period of [-346,-91] days. A firm's daily abnormal trading volume is computed as the daily trading volume minus the average trading volume during an estimation window of 40 days, divided by the firm's number of shares outstanding. Control variables are described in Appendix C. The sample is composed of *Up-Movers*, *Up-Candidates* and all remaining firms in the Russell 2000. The time period *before* refers to the 100 days leading up to the index recomposition on the last trading day in May. The time period *between* covers the 30 days between the index recomposition and the index reconstitution on the last Friday in June. The time period *after* spans over 100 days following the index reconstitution. Panel A shows the results for the univariate regressions, Panel B for the multivariate regressions controlling for key reporting events. The sample period is from 2007 through 2014. A bandwidth of 300 applies for *Up-Candidates. p*-values are presented in parentheses. Significance at the 0.01, 0.05, and 0.10 levels is indicated by ***, **, and *.

	CAR (all)			AV		
Panel A: Without Controls	Before	Between	After	Before	Between	After
Up-Movers (M)	55.737***	-50.819	51.662	1.865***	0.123	6.243***
	(13.961)	(60.558)	(50.422)	(0.412)	(1.008)	(2.184)
Up-Candidates (C)	-18.277***	9.989	-5.324	0.410*	0.693	-0.867***
	(5.745)	(14.219)	(7.479)	(0.227)	(0.813)	(0.257)
Constant	5.247**	14.097***	1.942	2.417***	3.612***	2.267***
	(2.230)	(4.701)	(2.591)	(0.082)	(0.237)	(0.091)
R2	0.00017	0.00005	0.00001	0.00014	0.00004	0.00021
Observations	118217	19164	83623	81914	13821	56677
Test: M - C = 0	74.01***	-60.81	56.99	1.46***	-0.57	7.11***
p-value	0.000	0.326	0.262	0.001	0.648	0.001
Panel B: With Controls						
Up-Movers (M)	55.631***	-51.899	51.563	1.848***	0.044	6.386***
	(13.960)	(60.708)	(50.422)	(0.411)	(1.029)	(2.182)
Up-Candidates (C)	-18.350***	10.118	-5.465	0.422*	0.716	-0.834***
	(5.747)	(14.212)	(7.486)	(0.228)	(0.813)	(0.257)
EA Day	-4.763	49.333	-1.284	1.120***	3.073**	1.708***
	(9.321)	(45.277)	(11.215)	(0.195)	(1.345)	(0.221)
AGM Day	4.667	-6.194	-24.564	-2.182***	-1.838***	-2.140***
	(6.038)	(24.477)	(15.244)	(0.161)	(0.663)	(0.378)
Board Day	-19.540	-16.564	24.179	-1.561***	-1.811	-0.564
	(21.290)	(69.552)	(32.485)	(0.440)	(1.117)	(0.496)
Constant	5.449**	13.146***	2.266	2.482***	3.582***	2.130***
	(2.383)	(4.751)	(2.647)	(0.096)	(0.245)	(0.100)
R2	0.00019	0.00019	0.00003	0.00119	0.00043	0.00094
Observations	118217	19164	83623	81914	13821	56677
Test: M - C = 0	73.98***	-62.02	57.03	1.43***	-0.67	7.22***
p-value	0.000	0.317	0.262	0.002	0.596	0.001

Table 4: Abnormal Returns and Volumes (By News Type)

This table reports event study results around index recompositions. Cumulative abnormal returns (CAR) and abnormal trading volume (AV) are computed for discretionary (*Dis*) and non-discretionary (*nDis*) firm-initiated news release separately employing an event window of [-1,1] days. Cumulative abnormal returns are calculated using the market model and an estimation period of [-346,-91] days. A firm's daily abnormal trading volume is computed as the daily trading volume minus the average trading volume during an estimation window of 40 days, divided by the firm's number of shares outstanding. Control variables are described in Appendix C. The sample is composed of *Up-Movers*, *Up-Candidates* and all remaining firms in the Russell 2000. The time period *before* refers to the 100 days leading up to the index recomposition on the last trading day in May. The time period *between* covers the 30 days between the index recomposition and the index reconstitution on the last Friday in June. The time period *after* spans over 100 days following the index reconstitution. Panel A shows the results for the univariate regressions, Panel B for the multivariate regressions controlling for key reporting events. The sample period is from 2007 through 2014. A bandwidth of 300 applies for *Up-Candidates.* There reference point is the Russell 1000 cutoff. P-values are presented in parentheses. Significance at the 0.01, 0.05, and 0.10 levels is indicated by ***, **, and *.

	Before		Between		After	
	CAR (dis)	CAR (ndis)	CAR (dis)	CAR (ndis)	CAR (dis)	CAR (ndis)
Up-Movers (M)	47.186***	106.132***	-17.855	-292.676*	58.046	-162.332
	(15.175)	(35.292)	(63.991)	(165.786)	(51.429)	(225.147)
Up-Candidates (C)	-13.177**	-49.825***	3.305	132.822*	-7.765	16.127
	(5.949)	(18.237)	(14.395)	(76.748)	(7.248)	(39.274)
Constant	6.403***	0.468	14.967***	2.192	3.190	-7.285
	(2.418)	(5.577)	(4.843)	(19.352)	(2.672)	(9.096)
R2	0.00013	0.00048	0.00001	0.00334	0.00002	0.00003
Observations	95693	22524	17877	1287	73832	9791
Test: M - C = 0	60.36***	155.96***	-21.16	-425.50**	65.81	-178.46
p-value	0.000	0.000	0.746	0.019	0.204	0.434

Table 1: Probability of Index Switching

This table reports the marginal effects for our probit regressions. Our dependent variable measures index switches from the Russell 2000 to the Russell 1000. The news measures are calculated over the *before* period. All variables are described in Appendix C. The sample period is from 2007 through 2014. A bandwidth of 300 applies for Up-Candidates. All models include year-fixed effects. *p*-values are presented in parentheses. Significance at the 0.01, 0.05, and 0.10 levels is indicated by ***, **, and *.

	All News		Discretionary News	Non-Discretionary News
	(1)	(2)	(3)	(4)
All News Items (M)	0.010***	0.007***		
	(0.002)	(0.002)		
Dis. News Items (M)			0.008***	
			(0.002)	
Non.-Dis. News Items (M)				0.004
				(0.008)
Firm Size (B USD)		0.138***	0.139***	0.137***
		(0.007)	(0.007)	(0.007)
Return on Assets (%)		0.015***	0.015***	0.015***
		(0.002)	(0.002)	(0.002)
Book Leverage (%)		0.000*	0.000*	0.000*
		(0.000)	(0.000)	(0.000)
Tobins Q		0.104***	0.104***	0.104***
		(0.004)	(0.004)	(0.004)
# Analysts		0.030***	0.030***	0.033***
		(0.011)	(0.011)	(0.011)
Stock Turnover (%)		0.003***	0.003***	0.003***
		(0.000)	(0.000)	(0.000)
McFadden R-squared	0.01	0.18	0.18	0.18
Number of observations	5492	4686	4686	4686

Figure 4:

Cumulative Abnormal Discretionary News Disclosure before Index Recompositions (Down)

This graph plots the cumulative, abnormal discretionary news production of *Down-Movers* and *Down-Candidates* prior to the day of the index recomposition. For the ease of comparison we normalize our news measure to zero 100 days before the index recomposition. We then cumulate the abnormal number of news over time (Ahern and Sosyura 2014). The abnormal component in news releases is measured relative to a firm's news production over the same time period in the previous year. Firm-initiated news releases refer to news items published by the respective firm and not an external source. Discretionary news releases are news items over which the management has discretion in terms on content and timing (Edmans, 2015). The sample period is from 2007 through 2014. A bandwidth of 300 applies for *Down-Candidates.*

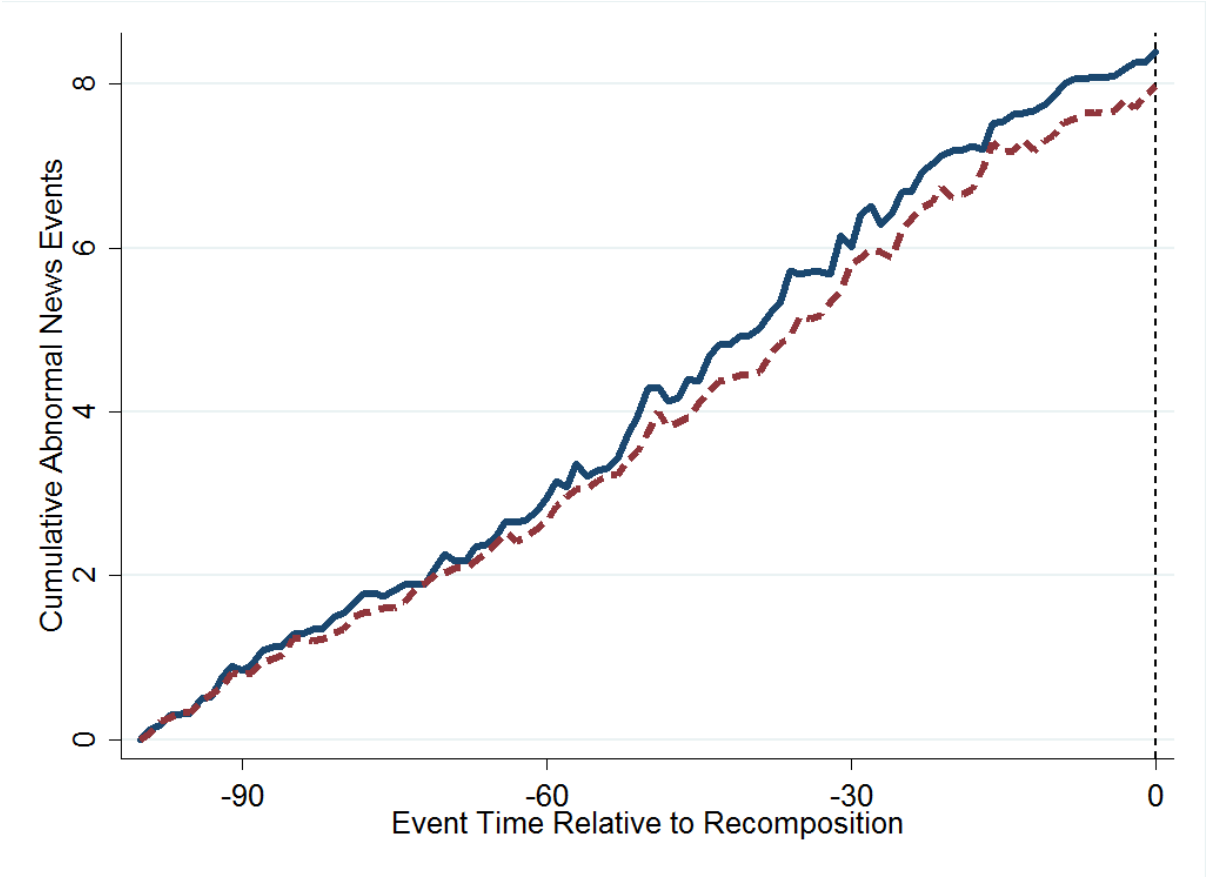

Figure 5:

Cumulative Abnormal Discretionary News Disclosure around Index Recompositions (Down)

As in Figure 4, this graph plots the normalized, cumulative, abnormal discretionary news production of *Down-Movers* and *Down-Candidates* over our three time periods. The time period *before* refers to the 100 days leading up to the index recomposition on the last trading day in May. The time period *between* covers the 30 days between the index recomposition and the index reconstitution on the last Friday in June. The time period *after* spans over 100 days following the index reconstitution. The sample period is from 2007 through 2014. A bandwidth of 300 applies for *Down-Candidates.*

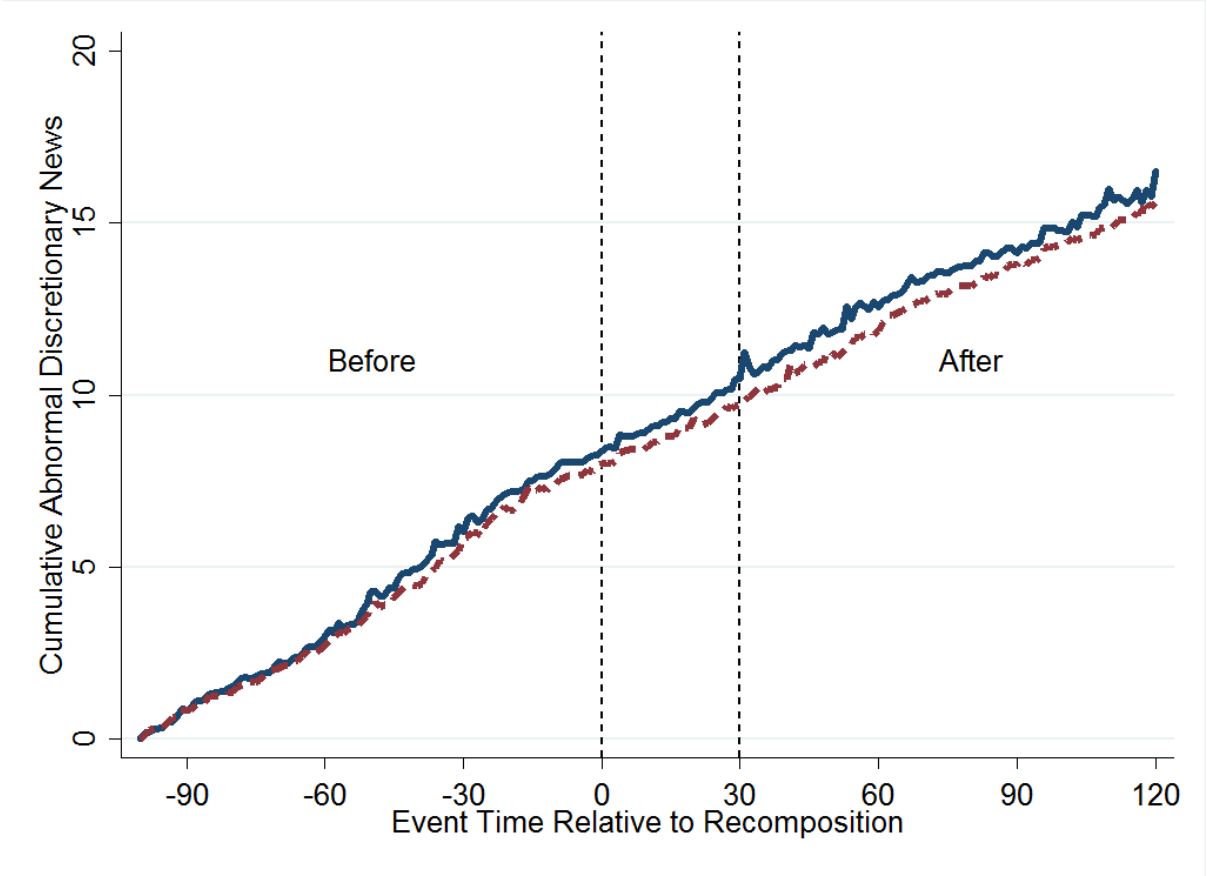

Table 6:

Discretionary News Disclosure (Down)

This table reports univariate *t*-tests of *Down-Candidates'* and *Down-Movers'* average discretionary news disclosure over our three time periods. The time period *before* refers to the 100 days leading up to the index recomposition on the last trading day in May. The time period *between* covers the 30 days between the index recomposition and the index reconstitution on the last Friday in June. The time period *after* spans over 100 days following the index reconstitution. Discretionary news disclosure is measured as the count of daily firm-initiated news items averaged over the three time periods. The sample period is from 2007 through 2014. A bandwidth of 300 applies for *Down-Candidates. p*-values are presented in parentheses. Significance at the 0.01, 0.05, and 0.10 levels is indicated by ***, **, and *.

	Before	Between	After	Differences	
	(1)	(2)	(3)	(2) - (1)	(3) - (1)
Down-Candidates (C)	3.36	2.90	2.77	-0.46 ***	-0.57 ***
				0.000	0.000
Down-Movers (M)	3.27	2.81	2.55	-0.47 **	-0.70 ***
				0.033	0.000
(M) - (C)	-0.08	-0.09	-0.23 **	0.00	-0.13
	0.426	0.716	0.018	0.986	0.336

Table 7: Abnormal Returns and Volumes (All News) (Down)

This table reports event study results around index recompositions. Cumulative abnormal returns (CAR) and abnormal trading volume (AV) are computed for each firm-initiated news release employing an event window of [-1,1] days. Cumulative abnormal returns are calculated using the market model and an estimation period of [-346,-91] days. A firm's daily abnormal trading volume is computed as the daily trading volume minus the average trading volume during an estimation window of 40 days, divided by the firm's number of shares outstanding. Control variables are described in Appendix C. The sample is composed of *Down-Movers*, *Down-Candidates* and all remaining firms in the Russell 1000. The time period *before* refers to the 100 days leading up to the index recomposition on the last trading day in May. The time period *between* covers the 30 days between the index recomposition and the index reconstitution on the last Friday in June. The time period *after* spans over 100 days following the index reconstitution. Panel A shows the results for the univariate regressions, Panel B for the multivariate regressions controlling for key reporting events. The sample period is from 2007 through 2014. A bandwidth of 300 applies for *Down-Candidates. p*-values are presented in parentheses. Significance at the 0.01, 0.05, and 0.10 levels is indicated by ***, **, and *.

	CAR (all)			AV		
Panel A: Without Controls	Before	Between	After	Before	Between	After
Down-Movers (M)	-18.578	57.516	-92.516	2.672***	12.049	0.404
	(22.536)	(63.252)	(79.135)	(0.791)	(10.039)	(2.306)
Down-Candidates (C)	33.247***	0.750	29.645***	0.420	-0.418	0.152
	(7.461)	(13.353)	(9.848)	(0.343)	(0.645)	(0.565)
Constant	5.735***	-7.895***	-3.507**	1.677***	1.952***	1.277***
	(1.406)	(2.564)	(1.717)	(0.073)	(0.150)	(0.087)
R2	0.00037	0.00011	0.00030	0.00116	0.00701	0.00001
Observations	89406	16808	66277	34337	5837	26397
Test: M - C = 0	-51.82**	56.77	-122.16	2.25***	12.47	0.25
p-value	0.028	0.379	0.125	0.008	0.215	0.915
Panel B: With Controls						
Down-Movers (M)	-18.818	58.474	-92.468	2.665***	11.908	0.618
	(22.537)	(62.701)	(79.202)	(0.790)	(10.060)	(2.307)
Down-Candidates (C)	33.049***	1.138	29.508***	0.403	-0.456	0.099
	(7.462)	(13.305)	(9.846)	(0.343)	(0.642)	(0.566)
EA Day	7.598	-102.329**	6.684	3.273***	9.884***	4.069***
	(10.081)	(52.019)	(13.227)	(0.305)	(3.503)	(0.390)
AGM Day	4.731	14.402	-5.053	-1.696***	-0.143	-1.974***
	(5.939)	(32.068)	(16.736)	(0.207)	(0.893)	(0.522)
Board Day	-22.949	105.156**	16.576	-0.420	0.698	-0.040
	(24.253)	(48.980)	(28.696)	(0.535)	(2.037)	(0.810)
Constant	5.248***	-7.222***	-3.817**	1.594***	1.858***	1.064***
	(1.451)	(2.556)	(1.701)	(0.079)	(0.147)	(0.090)
R2	0.00040	0.00125	0.00032	0.00520	0.01296	0.00403
Observations	89406	16808	66277	34337	5837	26397
Test: M - C = 0	-51.87**	57.34	-121.98	2.26***	12.36	0.52
p-value	0.028	0.370	0.126	0.008	0.220	0.827

Table 8: Probability of Index Switching (Down)

This table reports the marginal effects for our probit regressions. Our dependent variable measures index switches from the Russell 1000 to the Russell 2000. The news measures are calculated over the *before* period. All variables are described in Appendix C. The sample period is from 2007 through 2014. A bandwidth of 300 applies for *Down-Candidates. p*-values are presented in parentheses. Significance at the 0.01, 0.05, and 0.10 levels is indicated by ***, **, and *.

	All News		Discretionary News	Non-Discretionary News
	(1)	(2)	(3)	(4)
All News Items (M)	-0.002	-0.003		
	(0.003)	(0.003)		
Dis. News Items (M)			-0.004	
			(0.003)	
Non.-Dis. News Items (M)				-0.004
				(0.012)
Firm Size (B USD)		-0.169***	-0.169***	-0.168***
		(0.012)	(0.012)	(0.012)
Return on Assets (%)		-0.028***	-0.028***	-0.028***
		(0.004)	(0.004)	(0.004)
Book Leverage (%)		0.004***	0.004***	0.004***
		(0.000)	(0.000)	(0.000)
Tobins Q		-0.127***	-0.127***	-0.127***
		(0.017)	(0.017)	(0.017)
# Analysts		-0.031**	-0.031**	-0.033**
		(0.015)	(0.015)	(0.014)
Stock Turnover (%)		0.005***	0.005***	0.005***
		(0.001)	(0.001)	(0.001)
McFadden R-squared	0.00	0.19	0.19	0.19
Number of observations	3093	2659	2659	2659

Appendix A: Russell Index Construction

This section describes the annual reconstruction process of the Russell indexes. All information depicted here is obtained from the Russell Investments Guide (August 2015). Each year on the last trading day of May, Russell Investments ranks all eligible US securities based on a proprietary measure of their market capitalization. The Russell 3000E is composed of the largest 4,000 securities (or of all eligible securities if the total number of eligible securities is below 4,000). Securities with a rank between 1 and 1,000 become members of the Russell 1000, securities with a rank between 1,001 and 3,000 join the Russell 2000. The Russell 3000 consists of the 3,000 largest securities. In 2007 Russell Investments introduced a banding policy, which aims at reducing index turnover. The determination of index members is therefore no longer based on the clear cutoff points at the 1,000th rank in the Russell 1000 and 3,000th rank in the Russell 2000. Instead, a cumulative market capitalization range of +/- 2.5 percent is defined around each cutoff point. If a security is located within this band, it does not switch indexes. In other words, a firm must exceed this five percent band in order to move to the higher ranked index and must fall below the range in order to be removed from the higher ranked index. The banding policy does not apply to the Russell 3000 and 3000E cutoff points.

After the securities are assigned to the indexes, Russell Investments determines a firm's index weight by adjusting its market capitalization measure for free float. Again, this measure is proprietary information. Index weights are assigned based on the ranking of the free-float adjusted market capitalization within each index. While the membership determination occurs on the last trading day in May, the actual index reconstitution and the index weight assignments take place on the last Friday in June. For our study, only the membership determination based on the end-of-May market capitalization is relevant. Moreover, Russell Investments applies a strict no-replacement rule. This means that securities leaving the index over the year are not replaced. The number of securities within each index can thus vary. IPOs are, however, added quarterly. Appendix B provides more information on corporate action-driven changes in the Russell index family.

Appendix B: Corporate Action-Driven Changes

This table describes the corporate action-driven changes to the Russell indexes.

Corporate action	Replacement rule
M&A between index members	Target company is deleted from index. Company's market capitalization moves to the acquiring stock. No replacement during the index year.
M&A with targeted non-member	Acquiring company's shares are adjusted by adding the target company's market capitalization through a month-end share adjustment.
M&A with acquiring non-member	Target company is deleted from index.
Cross-border M&A	Target company is deleted from its local country index and the company's market capitalization moves to the acquiring stock according to the M&A terms.
Reverse mergers	The newly formed entity will be placed in the appropriate market capitalization index after the close of the first day's trade following the completion of the merger. Index placement will be determined by using the market-adjusted breakpoints from the last reconstitution.
Reincorporations U.S.	Members of the index that are reincorporated to another country are analyzed for country assignment the following year during reconstitution.
Reincorporations not U.S.	Companies that reincorporate and no longer trade in the U.S. are immediately deleted from the U.S. indexes.
Changes to shares outstanding	Changes to shares outstanding due to corporate activity are updated at the end of each month if the cumulative change is greater than five percent.
Domestic spin-offs	Spin-off companies are added to the Russell indexes at the time they are spun-off from their parent company and placed in the parent's index on the completion date. A spun-off company may be assigned to a different country from the parent, if any of its home country indicators differ from those of the parent.
Tender offers	Target company will be removed from the index when 51 percent of the shareholders agree, the offer period completes, shareholders have validly tendered, all regulatory requirements have been fulfilled, and the acquiring company is able to finalize the acquisition.
Delisting	When a company is delisted from a U.S. exchange and moved to OTC, the company is removed from the index.
Chapter 7 Bankruptcy	Company will be removed from the index at the time of the filing or after approval of shareholders.
Chapter 11 Reorganization	Company will remain member of the index.

Appendix C: Variable Definitions

Variable	Definition	Data Source
	Panel A : Groups	
Up-Movers	Indicator variable equals one if firm moves from Russell 2000 to Russell 1000, and zero otherwise	Russell Investments (constituents list)
Up-Candidates	Indicator variable equalsf one if firm's rank is located within a specified bandwidth below the Russell 1000 cutoff, and zero otherwise. A bandwidth of 300 applies in our main tests	Russell Investments (market capitalization)
	Panel B: News Measures	
Cumulative Abnormal Discretionary News Measure	Ratio of a firm's daily discretionary news items to the average number of daily news items over an estimation period. The ratio is accumulated over time and normalized to zero 100 days before the index recomposition date. The estimation period covers the same time period in the prior year. The measure presents an average across all sample years (Ahern & Sosyura, 2014)	Capital IQ
All News Items	Count of all firm-initiated news items for firm *i* on day *t*. This measure is averaged per month (Edmans et al., 2015)	Capital IQ
Dis News Items	Count of all firm-initiated discretionary news items for firm *i* on day *t*. This measure is averaged per month (Edmans et al., 2015)	Capital IQ
Non-Dis News Items	Count of all firm-initiated non-discretionary news items for firm *i* on day *t*. This measure is averaged per month (Edmans et al., 2015)	Capital IQ
	Panel C: Controls	
Market Value [B USD]	Russell Investment's proprietary *non*-float adjusted measure of market capitalization	Russell Investments (market capitalization)
Firm Size [B USD]	Log of book value of total assets (atq)	Compustat
Return on Assets [%]	Operating income before depreciation (oibdpq)/total assets (atq)	Compustat
Book Leverage [%]	(Current liabilities + long-term debt)/total assets	Compustat
Tobin's Q	(Total assets − common equity + market equity)/total assets	Compustat
# Analysts	Log of one plus the number of analysts following a particular stock	I/B/E/S
Stock Turnover [%]	Daily trading volume divided by the average number of shares outstanding over the Russell year	CRSP
EA Day	Indicator variable equals one on earnings announcement dates, and zero otherwise	Capital IQ
AGM Day	Indicator variable equals one on annual board meeting dates, and zero otherwise	Capital IQ
Board Meeting Day	Indicator variable equals one on board meeting dates, and zero otherwise	Capital IQ
	Panel D: Time Periods	
Before	100 days leading up to the index recomposition on last trading day of May	
Between	30 days between the index recomposition on the last trading day in May and the index reconstitution on the last Friday in June	
After	100 days following the index reconstitution on the last Friday in June	

Appendix D: News Items in Capital IQ Key Developments

This table depicts the percentage of each news items in our sample. The categorization of discretionary and non-discretionary news follows Edmans et al. (2015). The sample period is from 2007 through 2014. A bandwidth of 300 applies for *Up-Candidates.*

	Up-Movers (M)	Up-Candidates (C)	All	M - C
Panel A: Discretionary News Items (%)				
Conference Presentation Calls	18.75	16.50	15.26	2.25
Investor Conference	11.17	8.65	8.44	2.52
Earnings Calls	8.16	9.03	11.35	-0.87
Expected Earnings Release Date	7.67	8.69	10.70	-1.02
Client Announcements	7.12	6.43	5.45	0.69
Product-Related Announcements	6.73	6.94	5.63	-0.21
Executive/Board Changes - Other	5.93	7.46	7.77	-1.53
M&A Transaction Closings	3.50	2.31	2.13	1.19
Buyback Tranche Update	3.04	4.45	4.32	-1.41
Announcements of Earnings	2.98	3.40	4.09	-0.42
Dividend Affirmations	2.68	3.46	3.25	-0.78
Debt Financing Related	1.98	2.03	1.69	-0.05
Seeking Acquisitions/Investments	1.86	1.69	1.63	0.17
M&A Transaction Announcements	1.73	1.37	1.31	0.36
Follow-on Equity Offerings	1.67	0.64	0.89	1.03
Business Expansions	1.58	1.64	1.24	-0.06
Changes in Company Bylaws/Rules	1.55	1.45	1.33	0.10
Shelf Registration Filings	1.55	1.26	1.60	0.29
Strategic Alliances	1.03	0.79	0.58	0.24
Corporate Guidance - Raised	0.85	0.70	0.46	0.15
Panel B: Non-Discretionary News Items (%)				
Announcements of Earnings	47.35	47.77	51.53	-0.42
Annual General Meetings	40.41	41.78	38.60	-1.37
End of Lock-Up Period	5.92	1.42	2.44	4.50
Corporate Guidance - Raised	3.27	2.23	1.07	1.04
Board Meetings	1.43	3.10	2.29	-1.67
Auditor Changes	0.61	1.47	1.38	-0.86
Delistings	0.20	0.98	1.69	-0.78
SEC Inquiries	0.20	0.22	0.11	-0.02
Executive/Board Changes - Other	0.20	0.33	0.34	-0.13
Discontinued Operations/Downsizings	0.20	0.05	0.10	0.15
Corporate Guidance - Lowered	0.20	0.65	0.35	-0.45