

Strategic Release of Information on Friday: Evidence from Earnings Announcements*

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Abstract

Do firms time the release of news in response to investor inattention? We consider news about earnings and analyze the reaction of investors to announcements on Friday and on other weekdays. The announcements have two main effects on stock returns. First, the short-term response to Friday earnings announcements is 20 percent smaller than the response on other days of the week. Second, the post-earnings drift is 70 percent larger for Friday announcements. These stylized facts suggest that weekends distract investor attention temporarily. Consistent with this interpretation, trading volume around announcement day increases 20 percent less for Friday than for non-Friday announcements. These facts support models of post-earning announcement drift based on underreaction to information due to cognitive constraints. We also show that firms appear to respond to investor distraction by releasing worse announcements on Friday. Friday releases are associated with a 25 percent higher probability of a negative earnings surprise and a 50 basis points lower abnormal stock return. Finally, we document a similar pattern of strategic behavior for political decisions. The US President is 25 percent less likely to sign on Friday legislation containing good news.

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1 Introduction

Consumers are bombarded with a wealth of information regarding their personal and professional obligations. The cognitive capacities to process all of this information are limited. Limited cognitive capacities can explain, among other empirical findings, the use of heuristics in cognitive decision-making (Gabaix et al., 2002) and underreaction to information (Huberman and Tomer, 2001). Despite the importance of limits to cognitive resources, little evidence exists on the extent to which the quality of decision-making declines in response to distractions.

In this paper we examine a decision where attention to new information plays a crucial role, response to earnings surprises. We consider a regular event that is likely to distract investors from job-related tasks, the weekend. Since markets are closed between Friday evening and Monday morning, investors are usually not at work during the weekend. The anticipation of the weekend may distract investors on Friday, and the actual weekend may distract people from pending tasks. We compare the reaction to earning surprises for announcements that occur just before weekends, on Fridays, to the reaction on other weekdays. If weekends distract investors, the immediate response to Friday earnings surprises should be less pronounced. As a result, the delayed response should be of greater magnitude for Friday announcements. In addition, managers may exploit investor inattention by announcing bad news on Friday.

The Friday distractions allow us to address the debate on momentum and post-earnings announcement drift. Alternative explanations for these anomalies depend on disposition effect (Grinblatt and Han, 2004; Frazzini, 2004), fluctuations in overconfidence (Daniel, Hirshleifer, and Subrahmanyam, 1998), beliefs about mean reversion (Barberis, Shleifer, and Vishny, 1998), or underreaction to information (Hong and Stein, 1999). Our paper derives and implements a new empirical test of the latter explanation. If cognitive limits cause the post-earnings announcement drift, the reaction of stock prices to earnings should be more delayed for Friday announcements, when people are more likely to be distracted.

The paper proceeds as follows. We first present a simple model of the response of investors to a signal about earnings in Section 2. In each period a fraction of the agents is distracted and does not observe a signal regarding company performance. Given the presence of limits to arbitrage in the form of risk aversion, the distracted agents can affect prices. We examine the impact of distraction on the immediate and delayed response to the signal. We show that a larger share of inattentive investors shrinks the immediate response and magnifies the delayed response of stock prices to the signal. Distraction, therefore, increases post-announcement drift. The share of distracted investors, on the other hand, does not affect the long-term response to the announcement.

In addition, we model the strategic behavior of firms. The manager of a company chooses to announce the signal on a low-distraction or on a high-distraction day. Companies that maximize the long-term share price do not have any incentive to strategically release information.

Companies that maximize short-term share value, instead, adopt a simple threshold rule and release bad news on low-attention days.

In the empirical section of the paper, we test first the impact of distraction on the stock response to earnings announcements, and then the strategic behavior of company managers. In particular, we use the weekend as a proxy for distraction and compare Friday and non-Friday announcements. Our sample is comprised of approximately 101,000 quarterly earning announcements occurring from January 1995 until June 2003. We use the I/B/E/S data on analyst forecasts to form a measure of earnings surprise. We merge the earnings surprise information with CRSP data on stock returns and trading volume.

We find that the next-day reaction of stock prices to earning surprises is 60 percent lower for Friday announcements than for non-Friday announcements. The same-day response to earning surprises, instead, has similar magnitudes across different weekdays. Overall, the short-term stock response is 20 percent lower for Friday announcement than for non-Friday announcements. The results are precisely estimated and are qualitatively similar in the different empirical specifications.

While stock prices underreact to Friday announcements in the short-term, in the long-term the response to Friday announcements is larger than the response to announcements on other weekdays. The post-earnings announcement drift from 3 trading days to 75 trading days after the announcement (3,75) is 70 percent larger for Friday announcements. Next, we consider the combined short-term and long-term reaction (0,75). Over this horizon, there is no significant differential effect of Friday announcements.

These results are consistent with weekend distractions. Individuals are more likely to underreact initially to Friday announcements. Eventually, investors become aware of the information they neglected and trade accordingly. The stronger delayed response reverses the initial underreaction induced by the distractions.

In Section 5, we test an additional prediction of the distraction hypothesis. If weekends distract investors, abnormal trading volume should be relatively low on Monday for companies that announced earnings on the preceding Friday. We find that next-day abnormal volume is 40 percent lower for Friday announcements than for non-Friday announcements. The same-day volume, instead, displays no significant difference. The introduction of controls reduces the size of the effects but maintains the same qualitative conclusions. In particular, the results remain large and significant even after the introduction of firm fixed effects, which remove the cross-sectional variation in abnormal volume.

The stock return and the volume results suggest that investors display less immediate response to Friday announcements. If firm managers are interested in controlling the short-term stock response to earnings announcements, we expect them to release worse announcements on Friday. Indeed, we show that earnings announced on Friday are 20 percent more likely to be negative, and 25 percent more likely to fail to meet analyst expectations. Finally, abnormal

stock returns around announcement date are 50 basis points lower for Friday announcements than for announcements on other days. The results remain strongly significant and of similar magnitudes even when company fixed effects are introduced. The results therefore do not appear to be driven by differences in the characteristics of firms making announcements on Friday.

In Section 7 we provide evidence that the differential release of bad news around weekends occurs in other domains. We consider the realm of politics and in particular the scheduling by the United States President of the signing date of legislation. A President that is concerned about media coverage of controversial decisions may decide to sign such decisions on Friday or on the weekend. More specifically, we consider executive orders over the years 1945-2001 and laws over the years 1995-1998. For the executive orders we use three proxies of non-controversial decisions: commemorative decisions, creation of a new Department, and expansion of National Parks. For the federal laws, we characterize as non-controversial decisions commemorative laws and laws that were proposed by a Democrat under a Democratic president. We find that non-controversial decisions are 25 percent less likely to be signed on Friday or on weekends. The results about the strategic release of the political news, therefore, are consistent with the results about the strategic release of earnings news.

In Section 8 we consider alternative interpretations of the empirical findings regarding earnings announcements. First, the lower response to Friday announcements may be caused by the leakage of information before the official earnings announcements. However, the response of stock returns to earnings announcements in the 30 days before the announcement does not differ systematically for Friday and non-Friday announcements. Second, the lower initial response to Friday announcements could be due to systematic differences in the characteristics of companies announcing on Friday. While it is impossible to fully control for company heterogeneity, we show that the results are robust to the introduction of time, company, and market capitalization controls.

We also discuss three different versions of decision-making with limited attention and distractions. In our view, the most likely explanation of the facts is that the weekend disrupts the short-term memory of investors. This hypothesis is consistent with investors underreacting to Friday announcements, but responding fully to Monday announcements.

The results in this paper are related to the literature on inattention and cognitive constraints in finance (Barber and Odean, 2002; Barberis, Shleifer, and Vishny 1998; Daniel, Hirshleifer, and Subrahmanyam, 1998; Hong and Stein, 1999; DellaVigna and Pollet, 2004). From this standpoint, our key finding is that a distracting event increases the delayed reaction of stock prices to new information. This result indirectly supports the theory that momentum effects (Jegadeesh and Titman 1993) and post-earnings announcement drift (Chan, Jegadeesh, and Lakonishok, 1996; Bernard and Thomas, 1989) are caused by underreaction to new information due to cognitive constraints.

The evidence is also related to the literature regarding the effect of weekends on aggregate stock market returns and trading volume (French, 1980; Kleim and Stambaugh, 1984; Lakonishok and Levi, 1982). The evidence on timing of announcements on Friday builds on Damodaran (1989). Damodaran documents worse earning announcements and lower stock returns for Friday earnings (and dividend) announcements in the period 1981-1985. We obtain similar results for the more recent time period and show that the results are robust to the use of analyst expectations and to the introduction of company fixed effects. In addition, we provide empirical evidence that can explain why firms choose to release negative news on Friday. Bagnoli, Clement, and Watts (2004) find that earnings surprises are more likely to be negative for Friday announcements over the 2000-2003 period.

The evidence that firms schedule worse announcements on Fridays expands the existing literature on earnings manipulation (Graham, Harvey, and Rajgopal, 2004). Firms manipulate accounting measures to achieve positive earnings or positive surprises (DeGeorge, Patel, and Zeckhauser, 1999) and emphasize ‘street’ or GAAP earnings depending on which is more favorable (Dyck and Zingales, 2003; Hirshleifer and Teoh, 2003). In addition, firms tend to release bad news later in the day (Patell and Wolfson, 1982) and later in the earnings season (Begley and Fischer, 1998).

Finally, this paper is an additional example of a market response to a bias. This is a long-standing theme in finance (Baker and Wurgler, 2002; DeGeorge, Patel, and Zeckhauser, 1999; DeLong et al., 1990; Shleifer, 2000) and it has more recently been applied to firm pricing (DellaVigna and Malmendier, 2004; Gabaix and Laibson, 2004), political decision-making (Glaeser, 2002), and sports betting (Levitt, 2003).

2 Model

We present a model of investment where some of the agents are distracted. All investors are exposed to a signal about next period’s dividend, but only a fraction of the investors pays attention to the signal. Moreover, the fraction of attentive investors varies over time, for example depending on the day of the week of announcement. The manager of the company chooses the announcement day and, therefore, the fraction of attentive investors to maximize share price. The model uses the noise trader framework of De Long et. al. (1991) and shares some basic features with Hirshleifer and Teoh (2003).

Setup. The model is an overlapping generations framework, where the time interval for each period is best thought of as a quarter of a year. Investors make an investment decision at time t and then consume all of their wealth at time $t + 1$ after selling their assets to the next generation of investors. The timing for the model is as follows.

1. During period $t - 1$ the risk associated with the dividend D_t is resolved, and D_t is paid

at the end of period $t - 1$.

2. Before the beginning of period t , the manager of the company decides to announce the signal s_t on a day when the share of distracted investors is high or when it is low. This signal resolves some of the risk regarding the next dividend. The signal s_t becomes public before the start of period t , but only the attentive investors observe it.
3. At the beginning of period t , all investors choose the amount of wealth to be invested in the risky asset and riskless asset. Attentive investors use the signal s_t to make this portfolio decision, while the distracted investors do not. The equilibrium price P_t is determined by aggregating demand for the risky asset across all investors.
4. After the equilibrium price is determined for period t but before the start of period $t + 1$, the risk regarding the dividend (D_{t+1}) is resolved and D_{t+1} is paid to both types of investors.

In the spirit of a Perfect Bayesian Equilibrium, we first solve for the optimal portfolio choice given the beliefs of the investors. We then investigate the optimal managerial policy conditioned on the decisions and beliefs of the investors. We verify that the investors' and manager's beliefs are correct in equilibrium.

Portfolio choice. At the beginning of quarter t , investor i with a wealth W_t^i makes a portfolio decision between a riskless asset and a risky asset. The riskless asset has a price of 1 and a gross return of $1 + R$ every period. The risky asset has price P_t and pays a risky dividend D_{t+1} before the start of period $t + 1$. Investor i chooses the optimal investment of λ_t^i units in the risky asset in order to maximize end-of-period wealth. Each investor has a quadratic utility function with risk aversion parameter γ . We define $E_t^i[\cdot]$ as the expectation operator using the information available to individual i . The i^{th} individual's maximization problem is given by

$$\begin{aligned} \max_{\lambda_t^i} \quad & E_t^i[W_{t+1}^i] - \frac{1}{2}\gamma Var_t^i[W_{t+1}^i] \\ \text{s.t. } W_{t+1}^i \quad &= \lambda_t^i(P_{t+1} + D_{t+1} - P_t) + (W_t^i - \lambda_t^i P_t)R + W_t^i. \end{aligned}$$

Substituting the budget constraint into the maximization problem, we obtain the following solution for the demand λ_t^i for the risky asset:

$$\lambda_t^i = \frac{E_t^i[P_{t+1} + D_{t+1}] - P_t(1 + R)}{\gamma \sigma_{i,t,P+D}^2}, \quad (1)$$

where $\sigma_{i,t,P+D}^2 \equiv Var_t^i(P_{t+1} + D_{t+1})$. The demand for the risky asset depends positively on the investor's expectations of the future price P_{t+1} and the future dividend D_{t+1} , and negatively

on the current price P_t . Furthermore, the demand depends negatively on the risk aversion parameter γ and the perceived variance of the risky asset, $\sigma_{i,t,P+D}^2$.

In order to complete the model, we need to specify the process for D_{t+1} , as well as the rules governing the expectations of the investors. We assume that the dividend D_{t+1} incorporates both a signal (the earnings announcement) and an idiosyncratic realization. Formally, D_{t+1} equals $\delta + s_t + \varepsilon_{t+1}$ where $s_t \sim N(0, \sigma_s^2)$ is the signal broadcast to the public about the upcoming dividend before the choice of λ_t^i . The term $\varepsilon_{t+1} \sim N(0, \sigma_\varepsilon^2)$ is the random component of dividends that is unknown until the end of period t . We assume that s_t and ε_t are contemporaneously independent and are drawn identically and independently across periods.

As for investor expectations, we assume that there is a continuum of investors on the interval $[0,1]$ where a fraction $1 - \mu_t$ of investors observes the signal s_t (attentive investors) and a fraction μ_t of investors does not (distracted investors). The manager can choose the share of distracted investors μ_t to be low (μ_l) or high (μ_h), with $0 \leq \mu_l \leq \mu_h \leq 1$. This feature of the model captures the idea that, within a quarter t , companies can release information on low-attention days—Friday—or high-attention days—other weekdays. We define $E_t^\mu[\cdot]$ and $\sigma_{\mu,t,(.)}^2$ as the conditional expectation and variance operators for investors that do not observe the signal ($i \leq \mu$). Similarly, we let $E_t^{1-\mu}[\cdot]$ and $\sigma_{1-\mu,t,(.)}^2$ be the conditional expectation and variance operators for investors that observe the signal ($i > \mu$). The model nests the standard case in which the agents are never distracted ($\mu_l = \mu_h = 0$). We define $E[\cdot]$ and $E_t[\cdot]$ as the ‘true’ conditional and unconditional expectation operators, where $E_t[\cdot] = E_t^{1-\mu}[\cdot]$ by construction.

At the beginning of time t , the attentive investors form their expectation of dividend using s_t : $E_t^{1-\mu}[D_{t+1}] = E_t[D_{t+1}] = \delta + s_t$. The distracted investors, instead, form an unconditional expectation of future dividends: $E_t^\mu[D_{t+1}] = E[D_{t+1}] = \delta$. Expectations about dividends two periods in the future do not depend on distraction in period t : for any $k \geq 0$ and $i, j \in \{\mu, 1-\mu\}$, $E_{t+k}^i[E_{t+k+1}^j[D_{t+k+2}]] = \delta$.

Equilibrium. In equilibrium, total demand for the risky asset must sum to 1, or $\int_0^1 \lambda_t^i di = 1$. After substituting for λ_t^i in (1), we obtain

$$\mu_t \left(\frac{E_t^\mu[P_{t+1} + D_{t+1}] - P_t(1+R)}{\gamma \sigma_{\mu,t,P+D}^2} \right) + (1 - \mu_t) \left(\frac{E_t^{1-\mu}[P_{t+1} + D_{t+1}] - P_t(1+R)}{\gamma \sigma_{1-\mu,t,P+D}^2} \right) = 1.$$

Rearranging and simplifying the terms of the expression above yields

$$P_t = \frac{b_t E_t^\mu[D_{t+1} + P_{t+1}] + (1 - b_t) E_t^{1-\mu}[D_{t+1} + P_{t+1}] - a_t}{1 + R} = \frac{\bar{E}_t[D_{t+1}] + \bar{E}_t[P_{t+1}] - a_t}{1 + R} \quad (2)$$

where $a_t = \left(\frac{\mu_t}{\gamma \sigma_{\mu,t,P+D}^2} + \frac{1-\mu_t}{\gamma \sigma_{1-\mu,t,P+D}^2} \right)^{-1}$, $b_t = \frac{\mu_t}{\gamma \sigma_{\mu,t,P+D}^2} a_t$, and $\bar{E}_t = b_t E_t^\mu[\cdot] + (1 - b_t) E_t^{1-\mu}[\cdot]$. The price of the asset is a weighted sum of the expectations for distracted and attentive

investors, with weights given by b_t and $1 - b_t$, respectively. The weight b_t itself is increasing in the fraction of distracted agents μ_t . The risk premium a_t is increasing in the risk aversion parameter γ , as well as in the perceived variances $\sigma_{\mu,t,P+D}^2$ and $\sigma_{1-\mu,t,P+D}^2$.

Recursively solving forward expression (2) and also imposing the relevant transversality condition $\lim_{T \rightarrow \infty} \left(\bar{E}_t \bar{E}_{t+1} \dots \bar{E}_{t+T+1} [P_{t+T+2}] \right) / (1 + R)^{T+2} = 0$ yields

$$P_t = \frac{\bar{E}_t [D_{t+1}] - a_t}{1 + R} + \sum_{s=1}^{\infty} \frac{\bar{E}_t \bar{E}_{t+1} \dots \bar{E}_{t+s} [D_{t+s+1} - a_{t+s}]}{(1 + R)^{s+1}}.$$

The price of the asset in quarter t equals the expected payout in period $t + 1$ (first term) plus the expected payout in the later periods (second term). Since the information available at time t is uninformative regarding $D_{t+s+1} \forall s > 0$, we know that $\bar{E}_{t+1} \dots \bar{E}_{t+s} [D_{t+s+1}] = \delta$. In addition, since future dividends are unforecastable, participants have no information about the strategic release of future signals. Therefore, $E_{t+s-1}^{\mu} [a_{t+s}] = E_{t+s-1}^{1-\mu} [a_{t+s}] = \bar{a}$ where $\eta = \text{prob}(\mu_{t+s} = \mu_h)$ and $\bar{a} = \eta a(\mu_h) + (1 - \eta) a(\mu_l)$. Consequently, $\bar{E}_t \bar{E}_{t+1} \dots \bar{E}_{t+s} [a_{t+s}] = \bar{a}$. It follows that

$$P_t = \frac{\delta - \bar{a}}{R(1 + R)} + \frac{\delta - a_t}{1 + R} + \frac{(1 - b_t) s_t}{1 + R}. \quad (3)$$

The price P_t equals the sum of three terms, the future discounted dividend for all periods after the next, the average dividend for period $t + 1$, and the realized signal s_t for period $t + 1$. The presence of distracted investors affects this last term. As long as $\mu_t > 0$ (non-zero share of distracted agents), the price at time t does not fully incorporate the signal s_t , since $b_t > 0$. Under the standard case of no distraction ($\mu_t = 0$), the coefficient b_t equals 1.

Given this expression for P_t we can solve for $\sigma_{\mu,t,P+D}^2$ and $\sigma_{1-\mu,t,P+D}^2$. We obtain $\sigma_{\mu,t,P+D}^2 = \frac{1}{1+R} \sigma_{(1-b)s-a}^2 + \sigma_s^2 + \sigma_{\varepsilon}^2$ and $\sigma_{1-\mu,t,P+D}^2 = \frac{1}{1+R} \sigma_{(1-b)s-a}^2 + \sigma_{\varepsilon}^2$ where $\sigma_{(1-b)s-a}^2 = \text{Var} [(1 - b_t) s_t - a_t]$. We also define $\sigma_{(1-b)s}^2 = \text{Var} [(1 - b_t) s_t]$. The perceived variance is higher for the distracted investors, since these investors do not observe the signal s_t . The higher is the variance of the signal (σ_s^2), the larger the difference between $\sigma_{\mu,t,P+D}^2$ and $\sigma_{1-\mu,t,P+D}^2$. Both $\sigma_{(1-b)s-a}^2$ and $\sigma_{(1-b)s}^2$ depend on the rule governing the manager's strategic release of information (characterized below). The optimal rule implies that $\sigma_{(1-b)s-a}^2$ and $\sigma_{(1-b)s}^2$ are time-invariant, and therefore $\sigma_{\mu,t,P+D}^2$ and $\sigma_{1-\mu,t,P+D}^2$ are also time-invariant. We have verified that the dynamics of dividends and prices are consistent with $\sigma_{i,t,P+D}^2 = \sigma_{i,P+D}^2$ for all $i \in \{\mu, 1 - \mu\}$.

We can now derive measures of the immediate and of the delayed response of the stock price to the signal s_t . Define the dollar excess return as $Z_t = P_t + D_t - (1 + R)P_{t-1}$. This quantity is the excess return from the beginning of $t - 1$ until the beginning of period t . By construction, Z_t incorporates information on both the realization of dividend D_t as well as the announcement of signal s_t . In order to measure the short-term stock response to the announcement of the signal, we use $AR_t = Z_t - E_{t-1}[Z_t] - (D_t - E_{t-1}[D_t])$, the unexpected excess return minus the unexpected dividend.

Proposition 1. (i) *The short-term abnormal expected excess return $E_t[AR_t]$ is given by the following expression,*

$$E_t[AR_t] = \frac{\bar{a} - a_t}{1 + R} - \frac{\sigma_{(1-b)s}^2}{1 + R} + \frac{(1 - b_t)s_t}{1 + R}, \quad (4)$$

The abnormal return is a linear function of the signal s_t , with slope coefficient $(1 - b_t)/(1 + R)$. (ii) The slope coefficient $(1 - b_t)/(1 + R)$ is decreasing in the share of distracted agents μ_t and is equal to $1/(1 + R)$ if $\mu_t = 0$.

The first two terms in expression (4) depend on the strategic behavior of the company manager (addressed below). The first term represents the unexpected fluctuation in the risk premium, while the second term reflects the covariance between the fraction of attentive investors and the signal. If the announcement is not timed, both terms vanish. The final term is the most relevant for the empirical Section. The abnormal return due to the announcement is a linear function of signal s_t , conditional on the share of attentive agents at the time of release. The slope coefficient is given by $(1 - b_t)/(1 + R)$. When the share of distracted investors is higher ($\mu_t = \mu_h$), b_t is higher and the stock price does not react as much to the information contained in the signal.

In addition to the immediate reaction of the stock price to an earnings announcement, we also consider a measure of delayed reaction. We use $E_t[Z_{t+1}]$, the expected stock return in period $t + 1$ given the information in period t , including the signal s_t . This measures post-earnings announcement drift.

Proposition 2. (i) *The delayed response, $E_t[Z_{t+1}]$, is given by*

$$E_t[Z_{t+1}] = a_t + \frac{\sigma_{(1-b)s}^2}{1 + R} + b_t s_t. \quad (5)$$

$E_t[Z_{t+1}]$ is a linear function of the signal s_t , with slope coefficient b_t . (ii) The slope coefficient b_t is increasing in the share of distracted investors μ_t and is equal to zero if $\mu_t = 0$.

The delayed response is a function of the conditional risk-premium (the first two terms). The expected excess return is a linear function of the signal s_t , conditional on the share of attentive agents at the time of release. The slope of the delayed reaction is decreasing in the number of attentive agents and vanishes if all agents are attentive. Altogether, Propositions 1 and 2 provide a testable implication. A larger fraction of attentive agents leads to a greater immediate response and a lower delayed response.

Finally, we consider the impact of the announcement of a signal s_t on the long-term stock return. We use the sum of the short-term abnormal excess return at t and the discounted excess return from t to $t + 1$ as the measure of the total response to the signal s_t .

Proposition 3.(i) *The expected total discounted excess return is given by*

$$E_t[AR_t] + E_t\left[\frac{Z_{t+1}}{1+R}\right] = \frac{\bar{a}}{1+R} + \frac{R\sigma_{(1-b)s}^2}{(1+R)^2} + \frac{s_t}{1+R}. \quad (6)$$

The return $E_t[AR_t] + E_t[Z_{t+1}/(1+R)]$ is a linear function of the signal s_t , with slope $1/(1+R)$. (ii) The slope coefficient $1/(1+R)$ is independent of the share of attentive investors.

The response of the expected long-term return to the signal s_t does not depend on the share of inattentive investors. The distracted investors slow the diffusion of information into stock returns, but do not affect the cumulative response.

Firm optimization. The manager of the firm is not able to manipulate the mean or variance of the signal directly (Hirshleifer and Teoh (2003) analyze this possibility), but can determine whether the release takes place on a high-distraction ($\mu_t = \mu_h$) or low-distraction day ($\mu_t = \mu_l$). We consider the case of managers that maximize long-term value as well as the case of managers that maximize short-term value.

Long-term managers maximize the expectation at time t of prices at time $t+1$, that is, $E_t[P_{t+1}]$. Expression (3) for P_{t+1} implies $E_t[P_{t+1}] = (\delta - \bar{a})/R + \sigma_{(1-b)s}^2/(1+R)$, an expression that is independent of the decision to release at $\mu_t = \mu_l$ or at $\mu_t = \mu_h$. Given that the long-term price is independent of the release decision, the firm is indifferent between $\mu_t = \mu_l$ and $\mu_t = \mu_h$.

Short-term managers, instead, maximize a convex combination of the current price $E_t[P_t] = P_t$ and next period expected price $E_t[P_{t+1}]$. Since next period's expected price is independent of the manager's decision, short-term managers solve the following problem:

$$\max_{\mu_t \in \{\mu_h, \mu_l\}} \frac{\delta - \bar{a}}{R(1+R)} + \frac{\delta - a_t}{1+R} + \frac{(1-b_t)s_t}{1+R} \quad (7)$$

subject to the definitions for a_t and b_t . The manager faces a trade-off between two forces. First, a manager releasing a low signal s_t prefers to release when distraction is high ($\mu_t = \mu_h$ and b_t high) so that fewer investors become aware of the signal. This forces is captured by the last term in (7). Second, the decision to release on a high-distraction day increases the risk premium a_t since a higher fraction of investors does not observe the signal. *In the Appendix*, we show that the tradeoff between these forces leads to a simple threshold rule for the firm.

Proposition 4. (i) *Managers that maximize long-term value are indifferent between μ_l and μ_h . (ii) Managers that maximize short-term value choose $\mu_t = \mu_h$ whenever $s_t \leq \sigma_s^2 \gamma$; it follows that $E[s_t | \mu_t = \mu_h] < E[s_t | \mu_t = \mu_l]$.*

Managers that maximize short-term expected value time the release of bad news on high-distraction days and the release of good news on low-distraction days. The simple threshold

rule depends on risk aversion γ and the variance of the signal σ_s . The higher these two, the higher is the risk premium associated with release on high-distraction days, and therefore the smaller is the share of signal released on such days. The implication for average signal quality is that the average signal released on high-distraction days ($\mu_t = \mu_h$) is worse than the average signal released on low-distraction days ($\mu_t = \mu_l$).

Summary. The model predicts that on high-distraction days stocks returns should display less initial response to announcements and more delayed response. Furthermore, it predicts that the presence of distracted investors should have no impact on the long-term response to announcements. The model also addresses the strategic release of information by company managers. Managers that maximize long-term value are indifferent between releasing on bad or good news, while managers that maximize short-time value release bad news on Friday.

3 Data section

Earnings announcement data. Our sources of earnings data are I/B/E/S and Compustat. We use the quarterly earnings announcements from I/B/E/S for which at least one analyst forms an earning forecast in the 30 days before the announcement. We restrict the sample to announcements that are reported in both I/B/E/S and Compustat with a difference of at most 5 days between the reported announcement dates. We also require that stock return and volume data be available in CRSP for these announcements. The resulting sample includes 164,609 quarterly announcements over the period from January 1984 to June 2003.

In order to correctly identify Friday announcements, we need to know the exact date of the announcement. We randomly select 2,766 earnings announcements over the period 1984 to 2003. For these announcements we do a Lexis-Nexis search of the PR newswires to investigate the announcement date¹. We oversample announcements that occur on Friday according to I/B/E/S. We can summarize the results of the search for three categories of announcements:

1. I/B/E/S and Compustat announcement dates differ. In the case of disagreement, the earlier date is usually the actual date of the announcement, and the later date is the date of publication in the *Wall Street Journal*. We therefore assume that the correct date is the earlier one.²
2. Before January 1, 1989: I/B/E/S and Compustat announcement dates agree. In the case of agreement during this time period, the modal case is that the announcement was

¹The results of the search are available from the authors upon request.

²In 1984 and 1988 the I/B/E/S date is almost always one day after the Compustat date. The earlier date appears to be the correct one.

actually released on the previous trading day. In the period up to 1989 most announcements appear to be recorded using the *Wall Street Journal* date in both data sets. We shift the announcements to the previous trading date.

3. After January 1, 1989: I/B/E/S and Compustat announcement dates agree. During this time period, the announcement date appears to be taken from a newswire source. In this case, we do not change the announcement date.

After applying these rules for determining the imputed announcement date, we measure the accuracy of the imputed announcement date by year. Appendix Table 1 reports the number of cases in which the imputed earning announcement date is correct, is late by one or two trading days, is early by one or two trading days, or differs by more than two days. The statistic is reported separately for Friday and for non-Friday announcements for three different time periods. In the period before 1989, the date is correct for 66.3 percent of the non-Friday announcements and for 43.8 percent of the Friday announcements. Whenever the date is incorrect, the error is almost always of only one trading day. For the periods from 1989 to 1994, the pattern is similar, although the accuracy of the dates is higher. The date is correct for 88.1 percent of the non-Friday announcements and for 58.8 percent of the Friday announcements. Finally, in the period from 1995 on, the date is correct in 95.7 percent of the cases for Friday announcements and in 97 percent of the cases for non-Friday announcements.

This data suggests three patterns. First, before 1995 a substantial fraction of earnings announcements is recorded with error of one day. Second, the errors in recording are more common for Friday announcements than for non-Friday announcements, except in the later period. Third, the accuracy of the earning date has increased substantially over time, and is almost perfect after December 1994.

For the purposes of this paper, even a one-day error in the reporting of the date is crucial, since it may lead to a misclassification of Friday announcements. A typical classification error is that a fraction of the announcements are erroneously assigned to the next day. For example, a share of Thursday announcements are categorized as Friday announcements. If the number of true announcements was about the same in each day of the week, this would generate a constant error rate by weekday. However, the number of announcements varies substantially by weekday. Fewer companies actually announce their earnings on Friday than on other days (see Table 1). Since the number of miscoded previous-day (or next-day) announcements becomes more important when the number of actual announcements is smaller, Friday has a higher error rate.

In light of this evidence, we limit the analysis to the 101,190 earnings announcements taking place after 1994. This ensures that the imputed earnings announcement date is almost always correct both for Friday and for non-Friday announcements. In particular, in this sample the percentage of incorrect dates is essentially the same for Friday and non-Friday announcements.

As a measure of investor expectation, we use the consensus analyst forecast from I/B/E/S. The consensus forecast is defined as the median forecast among all the analysts that make a forecast in the last 30 calendar days before the earning announcement. If an analyst has made multiple forecasts in this time horizon, we use only the most recent one.³

Stock return data. We match the announcement dates with information on stock returns from CRSP. We also use CRSP to obtain measures of market capitalization and trading volume. We construct cumulative abnormal returns for different windows of event time around the announcement date. Define $R_{\tau,k}$ the stock return of company k on day τ and $R_{\tau,m}$ the market stock return on day τ . We obtain $\hat{\beta}$ for company k in quarter t from the regression $R_{u,k} = \alpha_{t,k} + \beta_{t,k}R_{u,m}$ for days u from $\tau - 300$ to $\tau - 46$, where τ is the date of the announcement in quarter t . The buy-and-hold abnormal return $R_{t,k}^{(h,H)}$ over time period $(\tau + h, \tau + H)$ for stock k in quarter t is then computed as $\left[\prod_{j=\tau+h}^{\tau+H} (1 + R_{j,k}) - 1 \right] - \hat{\beta}_{t,k} \left[\prod_{j=\tau+h}^{\tau+H} (1 + R_{j,m}) - 1 \right]$.⁴

Earnings surprise measure. We define our benchmark measure of earnings surprises as the difference between the earning announcement and the consensus earning forecast, normalized by the price of a share (Kothari, 2001). Let $e_{t,k}$ be the earnings per share announced in quarter t for company k and by $\hat{e}_{t,k}$ the corresponding consensus analyst forecast⁵. Further, indicate by $P_{t,k}$ the price of the shares of company k five trading days before the announcement in quarter t . The earnings surprise $s_{t,k}$ is defined as

$$s_{t,k} = \frac{e_{t,k} - \hat{e}_{t,k}}{P_{t,k}}. \quad (8)$$

The price of a share $P_{t,k}$ works as a renormalization factor. The earning surprise $s_{t,k}$ can be interpreted as the unexpected profits as a share of total market value of the company.⁶ For example, a value of $s_{t,k}^1 = .01$ implies that the company earned an additional 1 percent of its market capitalization above the consensus estimate for profits.⁷

³The results do not vary if we use the average forecast as a measure of consensus forecast or if we use analyst forecasts over a longer (60 days) or shorter (15 days) horizon.

⁴None of the results in the paper change if we replace beta-adjusted abnormal returns with raw returns or net returns.

⁵The date on earnings per share in I/B/E/S are adjusted for capital structure changes. In order to make the units of the earning announcements and forecasts comparable with the units of the price data $P_{t,k}$, we apply the adjustment provided by I/B/E/S. Since the adjustment factor is stored as a truncated number, the resulting variables $e_{t,k}$ and $\hat{e}_{t,k}$ have fractional cents. We round the earning per share measure $e_{t,k}$ to the nearest cent and the earnings forecast $\hat{e}_{t,k}$ to the nearest half cent.

⁶This can be seen by multiplying both numerator and denominator by $n_{t,k}$, the number of shares in quarter t for company k .

⁷We also replicate the results in this paper for two alternative earning surprise measures. The first alternative surprise measures is $(e_{t,k} - \hat{e}_{t,k})/\sigma_{t,k}$, where $\sigma_{t,k}$ is the standard deviation of the earning forecast for quarter t between analysts. The second alternative measure is $(e_{t,k} - e_{t-4,k})/\sigma'_{t,k}$, where $e_{t-4,k}$ is the earning announcement for the previous year on the same quarter and $\sigma'_{t,k}$ is the standard deviation of the numerator over the previous 16 quarters (this second measure does not make use of analyst forecasts). The results are

We drop observations in which the earnings announcement $e_{t,k}$ or the earnings forecast $\hat{e}_{t,k}$ are larger in absolute values than the price of a share $P_{t,k}$ (108 announcements). We also eliminate stocks with price smaller than \$1 as well as announcements recorded on Saturday or Sunday (66 observations). The final sample includes 101,016 announcements.

Political decisions data. Our measure of political timing is the day of week in which the President signs legal documents, in particular executive orders and federal laws. The first data set (from the Policy Agendas Project) contains information on all executive orders issued from 1945 to 2001, for a total of 3,674 records. Each executive order is summarized by a short description and is assigned to one of 21 major topics (such as the Economy, Social Security, etc.) The data set also contains information on the day on which the order was signed. Based on the description of the executive order, we also characterized which orders have one of the following features: (i) are commemorative (e.g., establishing the Humanitarian Service Medal—1/19/1977); (ii) institute a new committee or department (e.g., establishing the Cabinet Committee on Economic Policy—1/24/1969); (iii) establish or enlarge natural reserves (e.g., Establishment of the New England River Basins Commission—9/6/1967). We chose these categories on grounds that they would be fairly objective and unlikely to contain controversial decisions. commemorative occasions, expansions of government service, and expansion of environmental protection are likely to be well-received among the general public. A total of 74 orders are commemorative, 150 institute new Departments, and 11 widen natural reserves.

The second data set from the Policy Agendas Project covers all federal laws passed from 1995 to 1998, for a total of 718 records. For each law, the data set provides a brief description, as well as information on the major topic covered. Furthermore, the data set provides two measure of ‘good news’ for the President: (i) whether the law is commemorative; (ii) whether the law was initiated by a Democrat Senator or Representative. Commemorative laws, as we argued above, are unlikely to be controversial. Further, during the period 1995-98, the President is likely to be more eager to sign laws proposed by a Democrat. These laws show bipartisanship (under a Republican Congress), and in addition come from the same party as the President. A total of 77 laws are commemorative and 114 are proposed by Democrats. Since the Policy Agendas Project does not report the date of signing, we obtain the information from the GPO Access website.

4 Stock return response

In this Section, we examine the responsiveness of stock returns to earning surprises at various horizons. We compare the responsiveness for announcements occurring on Friday to the

qualitatively similar with the two alternative specifications, but the estimates are less precise and the R^2 of the regressions lower.

responsiveness for announcements on other weekdays.

4.1 Results by quantile

We divide the announcements into 11 bins, ordered by the size of the earnings surprise $s_{t,k}$. The announcements with negative earning surprises are in Quantiles 1 through 5, followed by the zero-surprise announcements (Quantile 6), and the positive surprises (Quantiles 7 through 11). The thresholds for the bins are set so as to guarantee an equal number of non-Friday announcements for bins 1 through 5 and for bins 7 through 11. Since positive surprises are about twice as common as negative surprises, bins 7 through 11 have about twice as many observations as bins 1 through 5. Within each bin, we separate the Friday announcement from the non-Friday announcements.

Panel E in Table 2 reports the average earnings surprise within each bin for the Friday and the non-Friday announcements. The within-quantile earnings surprise average is comparable for Friday and non-Friday announcements, except for the lowest bin. The average earnings surprise in the bottom quantile is -.049, while it equals .015 in the top quantile. Between bins 3 and 10 the average earning surprise is smaller in absolute value than .005. Bins 5 and 7 contain almost exclusively quarterly earnings per share announcement that deviate by at most one cent from the analyst consensus forecast.

We consider first the immediate response of stock prices to earning surprises for Friday and non-Friday announcements. If investors are distracted from earning surprises by the weekend, we should observe a smaller response to Friday than to non-Friday announcements. As a measure of response of stock prices, we use abnormal stock returns over the window (0,1), $R_{t,k}^{(0,1)}$. This denotes the return from the close on the trading day $\tau - 1$ before the earnings announcement to the close on the trading day $\tau + 1$ after the earnings announcement for stock k in quarter t . This measure captures the short-term response to announcements made during trading hours and announcements made after the market is closed.

Figure 1b shows the abnormal stock performance over the window (0,1) by quantile separately for Friday and non-Friday announcements. The responsiveness of stock prices to earning surprises is substantially flatter for Friday announcements. Interestingly, most of the underreaction occurs for positive announcements, suggesting that companies with positive announcements on Friday are significantly penalized. However, even for negative announcements there is less reaction on Friday: stock returns for quantiles 1 through 5 are less negative for Friday than for non-Friday announcements. Panel B in Table 2 reports the standard errors of the stock performance by quantile. *[Do sthg. about significance]*

Next, we consider the delayed reaction to the earnings announcements. If the underreaction to Friday announcements is due to distraction, we would expect that, over time, investors compensate for their initial underreaction. Figure 1c shows the abnormal stock performance

over the window $(3,75)$, $R_{t,k}^{(3,75)}$. We find evidence of post-earning announcement drift (Bernard and Thomas, 1989), specially for positive surprises: a positive earning surprise is followed by positive returns even in the period subsequent to the announcement. As measured by the difference between the performance of the extreme quantiles 11 and 1 for non-Friday announcements, the drift has a return of $5.45 - (-1.21) = 6.66$ percent over the 72 trading days. By this measure, the drift is 70 percent larger for Friday announcements: $6.35 - (-5.19) = 11.54$ percent. The difference between the drift on Friday and non-Friday is significant at the 1 percent level, although this results should be taken with some caution since the drift for Friday announcements is somewhat noisy.

Finally, we consider in Figure 1d the total response of stock prices to earning announcements. Figure 1d shows the abnormal stock performance over the window $(0,75)$, $R_{t,k}^{(0,75)}$. Over this period, the stock response to the earnings surprise appears to be as large for Friday as for non-Friday announcements. In fact, if anything the response to Friday announcements is larger for extreme negative announcements. This suggests that over the long-term there is no permanent effect of choosing to announce earnings on Friday. If anything, the evidence suggests a larger overall response to Friday announcements for the extreme quantiles (Table 2, Panel D).

To summarize, stock prices respond substantially less to Friday earning surprises than to non-Friday earning surprises in the short-term $(0,1)$. In the long-term $(3,75)$, stock prices respond more to Friday earning surprises than they do to non-Friday earning surprises, although this result is less precisely estimated. Summing these two effects in the event window $(0,75)$, there appears to be no lasting effect of Friday announcements. These patterns are consistent with distraction induced by the weekends. In the short-run, stock prices respond less to Friday earning announcements because investors forget to respond on Monday to information released on Friday. In the subsequent period, however, there is more response to Friday announcements as investors slowly become aware of the neglected information.

4.2 Regression results

In this Section, we explore the robustness of the results to the introduction of controls for firm size, month, and year of announcement. In order to add controls for these additional factors, we make the strong assumption that stock returns respond linearly to the earnings surprise. Since this assumption holds better for smaller surprises, we restrict the sample to the announcements with absolute value of the surprise smaller than .02. We focus on the main result of Section 4.1, that is, on the immediate response of stock prices to earnings announcements. The baseline specification is as follows:

$$R_{t,k}^{(h,H)} = \alpha + \phi_0 s_{t,k} + \phi_1 s_{t,k} d_{t,k}^F + \lambda d_{t,k}^F + B_0 X_{t,k} + B_1 s_{t,k} X_{t,k} + \varepsilon_{t,k}, \quad (9)$$

where $R_{t,k}^{(h,H)}$ denotes the abnormal stock returns for company k between h days before the announcement is quarter k and H days after the announcement. For example, $R_{t,k}^{(0,1)}$ denotes the abnormal stock returns at horizon (0,1), that is, on announcement day and on the next day. The coefficient ϕ_0 identifies the response of stock returns to earning surprises on non-Fridays. The Friday dummy $d_{t,k}^F$, capturing whether the announcement for quarter t is made on a Friday, is interacted with the earning surprise. The coefficient ϕ_1 , therefore, captures the difference in the response of stock returns to earning surprises for Friday relative to non-Friday announcements. Finally, a vector of controls $X_{t,k}$ is interacted with the earning surprise measure to allow for the stock response to depend on control variables. The controls are dummies for the month and year of announcement, as well as 10 dummies for market capitalization. The month indicators control for differences in return sensitivity across quarters and within a quarter (early versus late releases). The year indicators control for possible time trends in return sensitivity to earnings announcements. The dummies for market capitalization are constructed from $\log(p_{t,k}n_{t,k}) - \sum_{k=1}^K \log(p_{t,k}n_{t,k})/K$, that is, log market capitalization for company k in quarter t minus the average market capitalization for other companies making announcements in the same quarter. Standard errors are clustered by day of announcement to control for correlation of returns on the same day.

Table 3A presents the results of specification (9) with abnormal stock returns on the announcement day, that is, with $R_{t,k}^{(0,0)}$ as the dependent variable. Column 1 presents the specification without any control variables. The estimated coefficient $\hat{\phi}_0$ indicates that a 1 percent earning surprise generates same-day abnormal stock returns of 1.81 percent. The estimate for $\hat{\phi}_1$ indicates that the same-day stock response to a 1 percent Friday earning surprise is insignificantly larger than on other days by .22 percentage points. In the second column we introduce the set of controls. The controls are introduced additively, as well as interacted with the earning surprise. The estimated coefficient $\hat{\phi}_1$ remains positive and insignificant.

Table 3B we present the results of specification (9) with abnormal stock returns on the day after the announcement day, that is, with $R_{t,k}^{(1,1)}$ as the dependent variable. In the specification without controls (Column 1), the estimated coefficient $\hat{\phi}_0$ indicates that a 1 percent surprise is associated with 1.31 percent returns the next day. The effect of a Friday announcement is captured by the coefficient $\hat{\phi}_1$. The stock response to a 1 percent earnings surprise occurring on Friday is 1.35 percent smaller than on other days, that is, a 1 percent Friday surprise increases stock returns by only $1.31 - 1.02 = .29$ percent. The next-day response to Friday announcements therefore is about 80 percent lower than on other days, a highly significant difference. Column 2 shows the effects once we introduce controls for month, year, and market capitalizations. The coefficient $\hat{\phi}_1$ is approximately ten percent smaller than in Column 1 and equal to $-.89$. After allowing for controls, Friday announcements are associated with approximately 65 percent less stock price response the next day.

Table 3C shows the results of specification (9) on the window (0,1), that is, with $R_{t,k}^{(0,1)}$ as the

dependent variable. Without controls (Column 1), a one percent earning surprise is associated with a 3.46 percent abnormal returns on the day of and the day after the announcement. A one percent surprise for a Friday announcement, instead, is associated with an abnormal return of 1.71 percent, a 30 percent lower response compared to a non-Friday announcement. With controls (Column 2), the difference is somewhat lower, and still significant. The immediate response of abnormal stock returns is at least 20 percent lower for Friday announcement than for announcements on other days.

Overall, Friday announcements are associated with a substantially lower response of stock prices in the two days surrounding the announcement. The lower response is not due to lower sensitivity on both days. Rather, the same-day stock response to Friday announcements is comparable to or, if anything, stronger than the same-day response to announcements on other weekdays. It is the next-day response that is 65 percent smaller for Friday announcements than for announcements on other weekdays. This substantial difference is consistent with the hypothesis that weekends distract investors. By the time investors go back to work on Monday, the earning information has been partially forgotten.

Friday and non-Friday Subsample. While the results are certainly consistent with the hypothesis that weekends distract investors, the magnitudes of the effects are strikingly large. An alternative interpretation of the results is that companies announcing on Friday have unobservable features that differ from companies announcing on other days. These features may be associated with lower response of stock returns. While this does not explain why the lower response occurs entirely on the next day, we attempt to address the issue by making the sample more homogeneous. We replicate the results of specification (9) for the subsample of firms that have at least one Friday and one non-Friday announcement in the sample. The subsample of 25,888 announcements is formed by more homogeneous companies.

Column 3 in Table 3A reports the results of the estimation of specification (9) with controls over this subsample. Abnormal returns on announcement date respond essentially equally to Friday and non-Friday earning surprises. Column 3 in Table 3B shows the results for abnormal returns on the day after the announcement. The next-day stock response to a one-percent Friday earning surprise is 75 percentage points lower than the corresponding response to a non-Friday surprise. Column 3 in Table 3C shows the overall effect on abnormal stock returns over the horizon (0,1). Stock returns in the short-run respond 25 percent less to Friday earning surprises than to non-Friday earning surprises. The estimated coefficients in the subsample of firms that have at least one Friday and one non-Friday announcement are very similar to the estimated coefficients in the overall sample.

Firm Fixed Effects. Finally, as a way of controlling for unobservable company characteristics, we introduce firm fixed effects in the regressions (9). That is, we estimate

$$R_{t,k}^{(h,H)} = \alpha + \phi_0 s_{t,k} + \phi_1 s_{t,k} d_{t,k}^F + \lambda d_{t,k}^F + B_0 X_{t,k} + B_1 s_{t,k} X_{t,k} + \eta_k + \varepsilon_{t,k}, \quad (10)$$

where η_k are the company fixed effects⁸. This fixed effect controls for differences in company-level abnormal returns that can arise over a relatively short sample of 8 years. We report the results for both the overall sample (Column 4), as well as for the sub-sample of companies with some Friday and some non-Friday announcements (Column 5). The introduction of the company dummies does not change the results in Tables 3A, 3B, and 3C. The same-day stock reaction is as large (or larger) on Friday as on other days, while the next-day stock reaction is much smaller for Friday announcements. Overall, the short-run stock reaction is 20 to 30 percent lower for Friday than for non-Friday announcements.

Day-of-week Specification. In the empirical specifications adopted so far, we have focused on the difference between Friday and other days of the week. We have interpreted the results in the light of the weekend that separates Friday announcements made after close from the next day of trading. If this interpretation is correct, the difference in stock responses to earning announcements should mainly occur between Friday and non-Friday announcements, and not between other days of the week. In Column 6 of Tables 3A, 3B, and 3C we estimate the stock response to earning surprises on different days of the week. We estimate the specification

$$R_{t,k}^{(h,H)} = \alpha + \phi_0 s_{t,k} + \sum_{w \in \{T,W,Th,F\}} \left[\phi_1^w s_{t,k} d_{t,k}^w + \lambda^w d_{t,k}^w \right] + B_0 X_{t,k} + B_1 s_{t,k} X_{t,k} + \varepsilon_{t,k}, \quad (11)$$

where $d_{t,k}^w$ are indicator variables for announcement of company k in quarter t in weekday w (Monday is the omitted category). We estimate the specification on the subsample used in Column 2. The results in Column 6 of Table 3A show that the same-day response to earning surprises is not significantly different on any of the weekdays. The next-day response, instead, is significantly lower for Friday announcements and, marginally so, for Thursday announcements (Column 6 of Table 3B). Finally, the stock response on same-day and next-day is significantly different (lower) only for Friday announcements (Column 6 of Table 3C).

The results of the day-of-week specification show that the only significant difference by day of week is between Friday announcements and announcements on other weekdays. The element that distinguishes Friday from other weekdays, in our interpretation, is the distraction from trading caused by the weekend.

5 Volume response

The results in the previous Section indicate that the next-day stock response to Friday earnings announcements is substantially lower than for non-Friday announcements. Our interpretation of this result is that investors are distracted by weekends and respond less on Monday to information emerging on Friday. This interpretation makes an additional prediction, namely

⁸In this specification standard errors are not clustered by date of announcement.

that the next-day abnormal volume of trades should also be lower for Friday than for non-Friday announcements. In this Section we define a measure of abnormal volume and test this prediction.

The measure for abnormal volume of trades is

$$\Delta v_{t,k}^{(h,H)} = \sum_{u=h}^H \log \left(V_{t,k}^{(u,u)} \right) / (H - h + 1) - \sum_{u=-20}^{-11} \log \left(V_{t,k}^{(u,u)} \right) / 10$$

where $V_{t,k}^{(\tau,\tau)}$ is the value of the shares traded on the τ -th day after the earning announcement in quarter t of company k . The measure $\Delta v_{t,k}^{(h,H)}$ can be interpreted as the percentage increase in volume around announcement date at horizon (h, H) , relative to baseline volume. In particular, $\Delta v_{t,k}^{(0,0)}$ is the abnormal increase in volume on announcement day and $\Delta v_{t,k}^{(1,1)}$ is the abnormal increase in volume the day after the announcement.

As a first cut, we present graphical evidence on the measures of abnormal volume for the days surrounding the announcement date in Figure 2. For the sample of non-Friday announcements, abnormal trading volume is basically zero two trading days before the earning announcement and is about 5 percent on the trading day before the earnings announcement. On earnings announcement day, abnormal volume increases fairly dramatically to 44 percent and then to 56 percent on the trading day following the announcement. On the second trading day after the announcement, abnormal volume is still as high as 27 percent. It then declines to 19 percent on trading day $\tau + 3$, 14 percent on trading day $\tau + 4$, and 11 percent on trading day $\tau + 5$. Interestingly, the increase in volume following an announcement decays rather slowly. A week after the announcement, the trading volume is still eleven percent higher than in the baseline period.

Figure 2 presents the same information also for the sample of Friday announcements. The measures of abnormal volume are very similar for the days preceding the announcement. On announcement day, abnormal volume is about ten percent higher for Friday announcements. The most substantial difference between the two series, however, occurs on the trading day after the announcement, when abnormal volume is 40 percent lower for a Friday announcement. On trading days $\tau + 2$ and $\tau + 3$, the two series are again very similar. On trading days $\tau + 4$ and $\tau + 5$ abnormal volume is somewhat lower on Friday.

The time series of abnormal volume suggests an inattention interpretation. Up to announcement date, the series for Friday and non-Friday announcements are quite similar. On the day after a Friday announcement, however, volume response is substantially smaller than after a non-Friday announcement. Our interpretation of this finding is that the weekend distracts investors. Consequently, trade does not increase as much in response to new information released on Friday. On the second day after the announcement, the differences between Friday and non-Friday announcements have disappeared. This may be due to two offsetting forces. On the one hand, the investors that have been distracted by the weekend are still not trading.

On the other hand, other investors trade to respond to the underreaction after the weekend.

Regressions. The graphical evidence does not allow us to control for the size of the earning surprise nor for other control variables. We present now regression-based evidence. In the baseline specification, we regress the abnormal volume on quantiles of the earning surprises, a dummy for Friday announcement, and a set of controls:

$$\Delta v_{t,k}^{(h,H)} = \theta_0^1 + \sum_{d=2}^{11} \theta_0^d s_{t,k}^d + \theta_1 d_{t,k}^F + \Gamma X_{t,k} + \eta_k + \varepsilon_{t,k}, \quad (12)$$

The terms $s_{t,k}^d$ are dummies for earning surprises $s_{t,k}$ in the d -th quantile. The control variables $X_{t,k}$, as usual, are month and year dummies and 10 dummies for market capitalization. Table 4A reports the estimation coefficients for the same-day abnormal volume, that is, for $\Delta v_{t,k}^{(0,0)}$. Column 1 reports the results for the whole sample with only the earning surprise dummies, and Column 2 reports the results with the whole set of controls. The average increase in volume for surprises in the bottom quartile, $\hat{\theta}_0^1$, is .456. This can be interpreted as a 45.6 percentage increase relative to baseline volume. The increase in volume is U-shaped in the size of the earning surprise: it is lowest for the case of no-surprise (36.8 percent increase in volume) and is highest for the most positive surprise (60.5 percent increase in volume). The coefficient θ_1 for Friday announcements is .046 (significant) without controls and .024 (not significant) with controls. The same-day abnormal volume increase for Friday announcements is about ten percent higher (with controls) or essentially equal (without controls) to the other days.

Table 4B reports the parallel results for the next-day abnormal volume, that is, for $\Delta v_{t,k}^{(1,1)}$. The average increase in volume for surprises in the bottom quantile, $\hat{\theta}_0^1$, is 65.5 percent, an increase even higher than on the same day. Once again, the increase in volume is a U-shaped function of the earning surprise, with the lowest increase in volume for the no-surprise case (48.1 percent increase). Most importantly, the coefficient $\hat{\theta}_1$ on the Friday dummy is negative and significant: the abnormal next-day volume increase is 38 percent lower for Friday announcements than for non-Friday announcements. The result is similar even after year, month, and market capitalization controls are added to the regression.

Finally, Table 4C reports the results for the average increase in same day and next-day volume, that is, for $\Delta v_{t,k}^{(0,1)}$. The average short-run volume increase is also a U-shaped function of the earning surprise, and is 18 percent lower for Friday announcement than for announcements on other weekdays. The results are similar after the introduction of controls. The results from the volume regressions, therefore, are consistent with the graphical evidence presented in Figure 2. Short-term abnormal volume is lower for Friday earning announcements and the difference is concentrated in the next-day abnormal volume. Once again, it appears that weekends moderate the response of investors to earnings information.

Alternative specifications. We repeat the results for different subsamples and controls. In Column 3, we use the subsample of companies with both Friday and non-Friday announce-

ments. In Column 4 we introduce firm fixed effects for the whole sample, while in Column 5 we use the fixed effects on the subsample. In the volume regressions, the firm fixed effects control for company-level idiosyncratic differences in abnormal volume. Finally, in Column 6 we report the results with day of the week controls for the whole sample.

The results for the subsample of companies with both Friday and non-Friday announcements (Columns 3) are very similar to the ones on the whole sample. The same-day increase in volume is comparable across Friday and non-Friday announcements. The next-day increase in volume is 30 percent lower for Friday announcements. The introduction of company fixed effects (Columns 4 and 5) reduces the differential volume increase for Friday announcements to a still highly significant 23 percent effect.

The introduction of weekday controls (Column 6) reveals an interesting pattern. The same-day volume response is 25 percent lower for Monday announcements than for announcements on other days of the week. Friday same-day abnormal volume is essentially the same as on any other weekday except Monday. On the other hand, the next-day volume response is significantly lower for Friday announcements and, to a lesser extent, higher for Monday announcements compared to Tuesday, Wednesday, and Thursday announcements. One interpretation of these results is that the weekend distracts investors not only from the Friday information but also, somewhat, from the new Monday information. The Monday same-day ‘distraction’, though, is only half as large as the next-day Friday ‘distraction’. Moreover, we do not find evidence of a Monday same-day effect on abnormal stock returns.

Summary. Overall, the volume data suggests that weekends have a powerful distracting effect on investor behavior. The short-run volume increase associated with earnings announcements is lower for Friday announcements than for announcements on other days. This difference is due to a lower increase in volume for next-day trading following a Friday announcement which is consistent with weekend-induced distraction of investors. In the volume data we also observe a second effect. Same-day abnormal volume increase is smaller for Monday announcements than for other days. This effect could be due to a persistent distraction due to the weekend. However, the overall volume increase over the period (0,1) is not significantly lower for Monday announcements. This suggests that the Monday effect is not as large as the Friday effect. Presumably, the weekend distraction has the strongest effect on announcements made just before the weekend, as opposed to announcements made on Monday morning.

6 Firm timing

The evidence in the previous two Sections suggests that investors pay less immediate attention to announcements occurring on Friday than on other days. As the model in Section 2 shows, if the CEOs are aware of investor inattention and are interested at least partly in maximizing short-term value, they should respond by releasing worse earnings announcements on Friday.

This is a different form of earnings manipulation. Beyond the manipulation of accounting data (DeGeorge, Patel, and Zeckhauser, 1999) and the emphasis of ‘street’ or GAAP earnings (Dyck and Zingales, 2003), firms can alter the market response by varying the release date of their earning announcement.

While investor inattention may motivate CEOs to schedule worse announcements on Friday, timing of announcement will be mitigated by two factors. First, there appears to be no long-term effect of Friday releases, which suggests that CEOs interested in maximizing long-term shareholder value should be indifferent between releasing information on Friday or releasing information on other days of the week. Second, the date of announcement is sometimes set one or more quarters before the realization of quarterly earnings, limiting the ability of managers to optimally choose the release date.

We provide graphical evidence about the timing of announcements. The first measure of earnings quality is an indicator variable for whether the company announces negative operating profits for the quarter. Companies manipulate earnings to avoid announcing negative earnings, if possible (DeGeorge, Patel, and Zeckhauser, 1999). In Figure 3A, we display the percentage of announcements with negative earnings by day of the week. The frequency of a negative earnings announcement varies between .177 and .195 between Monday and Thursday. On Friday, this probability is .237, significantly higher than on any other day of the week. Friday announcements are 20 percent more likely to present negative earnings than announcements on other weekdays.

While this first measure of earning quality is important, the most obvious comparison is with the consensus forecast by analysts. The second measure therefore is the fraction of announcements with negative earning surprises. Figure 3B shows that, Monday through Thursday, the fraction of negative surprises varies between .265 to .284. On Friday, instead, the fraction of negative surprises is .402. Friday announcements, therefore, are about 50 percent more likely to fail to meet analyst expectations, a large and highly significant difference. This result has implications for the rationality of analysts. Even though the first measure of earnings quality shows that the firms time worse announcements on Friday, it could still be the case that analysts update their earning forecasts accordingly once they learn that an announcement will take place on Friday. The significant difference according to this second measure shows that analyst forecasts do not fully reflect the extent of bad news on Friday.

Figure 4 presents the distribution by quantile of the earning surprise for announcements on Friday and on other weekdays. We find three main effects. First, earning surprises for Friday announcements are more likely to be negative and in particular very negative: Friday announcements are almost twice more likely to be in the bottom bin of the earnings surprise and are also substantially more likely to be in bins 2, 3, and 4. Second, Friday announcements are twenty percent less likely to have surprise zero (bin 6). Third, Friday announcements are less likely to be barely positive, but no less likely to be substantially positive (bins 10 and 11).

An interpretation of these patterns is that some companies announce on Fridays if they have substantially negative earnings. In addition, if they announce on Friday, they are less likely to perform earning manipulation that leads to barely positive surprises.

The third measure of earnings quality is the abnormal stock return on the day of and the day after the announcement. Figure 3C shows that, while the abnormal stock return on Monday through Thursday is between -.0009 and .0020, the average abnormal stock return on Friday is -.0036. This difference of over 40 basis points is sizeable and significant. These results confirm the earlier findings of Damodaran (1989) that finds differences of similar magnitude for the period 1981 through 1985. This third measure shows that firms deceive not only the analysts, but also the investors with their timing of bad news. This fits well with the overall evidence of firms taking advantage of inattention. If investors were fully aware of the firms timing bad announcements on Friday, CEOs probably would not have incentive to time the announcements.

Regressions. While this evidence is suggestive of timing of negative news on Friday, alternative interpretations for these results are possible. Firms announcing on Friday may have unobservable features that are associated with more negative earnings surprises and returns. This would explain also the findings in Damodaran (1989) and Bagnoli et al. (2004). In order to address this explanation, we present the results of regression specifications with various controls. The OLS specification⁹ is

$$e_{t,k} = \alpha + \gamma d_{t,k}^F + \Theta X_{t,k} + \varepsilon_{t,k}$$

where $e_{t,k}$ is the measure of quality of the announcement by company k in quarter t , $d_{t,k}^F$ is a dummy for Friday announcement and $X_{t,k}$ is a vector of controls as above (dummies for month, year, and dummies for market capitalization).

In Table 5A we report the results for the first measure of earning quality, the share of negative announcements. The estimated $\hat{\alpha}$ is .186, indicating that 18.6 percent of the announcements are for negative earnings on non-Fridays. The estimated $\hat{\gamma}$ is .050 without control variables (Column 1) and .036 with control variables (Column 2). Friday announcements are 25 percent (20 percent with controls) more likely to present negative earnings. In Column 3 we restrict the sample to companies that have at least one Friday and one non-Friday announcement. This eliminates companies that never issue earnings announcements on Friday and therefore reduces the heterogeneity of companies. The coefficient estimate $\hat{\gamma} = .050$ on this subsample is as large as in Column 1. Next, we introduce company dummies. With company fixed effects, the dependent variable is identified only by within-company differences in earnings quality on Friday and non-Friday announcements. Unlike in the results above, heterogeneity across companies does not contribute to the identification. The coefficient $\hat{\gamma}$ is .040, an estimate intermediate between the one without controls (Column 1) and the one with controls

⁹We obtain essentially the same results when we use a probit for Tables 5A and 5B.

but no firm fixed-effects (Column 2). Even after the introduction of company dummies, therefore, Friday announcements are 20 percent more likely to be negative. As a final specification check, we compare Friday announcements with announcements on other weekdays. Friday is the only weekday that is significantly different from the other weekdays (Column 5). Overall, companies appear to time worse corporate results on Friday.

Table 5B presents the results for the second measure of earning quality, the fraction of announcements with negative surprises. Without control variables (Column 1), non-Friday announcements have a 27.5 percent chance of being negative surprises, compared to a $27.5+12.6 = 40.1$ percent chance for Friday announcements. With control variables (Column 2), the estimated difference between Fridays and non-Fridays in the share of negative surprises is 10.5 percentage points. In the subsample of companies with at least one Friday and one non-Friday announcements (Column 3), $\hat{\gamma}$ equals .088. With the introduction of fixed effects, the difference between Friday and non-Friday announcements becomes .072 (Column 4). The introduction of controls and of company fixed effects reduces the effect from an average of 12.3 percentage points to an average of 7.2 percentage points. While the latter effect is substantially smaller than the one without controls, it is still very large and precisely estimated. Earning surprises for Friday announcements are 25 percent more likely to be negative than for non-Friday announcements. Finally, Friday earning surprises are significantly more negative than surprises announced on any other weekday (Column 5). Companies, therefore, appear to time the release of negative announcements on Friday, and to deceive, at least partially, analysts that do not expect such negative announcements.

Table 5C presents the results for the third measure of earnings quality, the abnormal stock returns on announcement day and on the next day. The average cumulative abnormal return is 5 basis points for non-Friday announcements and -48 basis points for Friday announcements (Column 1). The 53 basis point difference between returns for Friday and non-Friday announcements is large and significant. This difference remains essentially unchanged after the introduction of controls (Column 2). For the subsample of companies with at least one Friday and one non-Friday announcement (Column 3), the difference in returns between Friday and non-Friday is of 59 basis points. Finally, in the specification with company fixed effects (Column 4), the difference in stock returns between Friday and non-Friday announcements is of 56 basis points. The results are due to a Friday effects and not to differences among other weekdays (Column 5). Overall, there is a robust, significant, and substantial difference in abnormal stock returns between Friday and non-Friday announcements. Not only analysts, but also investors are surprised on average by the lower quality of earning surprise announced on Friday.

7 Political timing

Section 6 shows that firms release worse earnings news before weekends. We interpreted this pattern as evidence that firm managers respond to investor inattention. If inattention around weekends is a widespread phenomenon, we should expect other actors to display a similar behavior. Politicians are a prime candidate for this phenomenon. Elected officials desire to minimize the publicity of potentially controversial decisions that may hurt their likelihood of reelection. They may, therefore, strategically release these decisions on Friday or during the weekend. This release pattern may lower the probability that the media and voters focus on these decisions.

In this paper we focus on the President on the United States and his decision to sign executive orders and federal laws. The President has substantial discretion as to the exact date of signing. If he believes that an executive order or a law may prove unpopular, but he nevertheless intends to sign it, he may choose to sign it on Friday or on a weekend. Presumably, the media and the voters are less likely to pay attention to the story in this case. We use a data set of signing dates for all executive orders over the period 1945-2001 and all federal laws over the years 1995-1998. While we do not have measures of controversial orders and laws, we use four measures of (comparatively) uncontroversial decisions, that is, decisions that the President should want to emphasize. For executive orders, we use three categories: commemorative orders, orders that institute a new committee or department, and orders that establish or enlarge natural reserves.¹⁰ A total of 224 executive orders out of 3,674 belong to this presumed ‘good news’ category. For federal laws, we use two categories, commemorative laws and laws that were initiated by a Democrat Senator or Representative. The latter laws, during the period 1995-98, display both bipartisanship (under a Republican Congress) and address themes that the (Democratic) President is likely to support. A total of 161 laws out of 718 laws belong in this category.

As a first test of whether the President strategically releases information, we compute for each day of week the share of all the signings that are for presumed good news. Figure 5a plots these shares for the sample of executive orders by day of week, except for Sunday signings, which are very infrequent. Of all days of the week, Friday is the day with the lowest share of ‘good news’ signings, followed by Saturday. A similar pattern appears in the data set of federal laws (Figure 5b). While from Monday to Thursday the share of good news signings is about .25, the share on Friday and Saturday is below .18. On Friday and on the weekend, therefore, signings occur more frequently for neutral news legislation than for good news legislation.

In Table 6 we test this association more formally. Denote by d_k^W an indicator variable for signing on Friday or on weekend of law k , and for g_k and indicator for whether executive orders or federal law k falls into the ‘good news’ category. Further, denote by d_k^E a dummy

¹⁰For more details, see Section 3.

for whether the presidential signing regards an executive order (as opposed to a federal law). The OLS specification¹¹ is

$$d_k^W = \alpha + \beta g_k + \gamma d_k^E + \Theta X_k + \varepsilon_k, \quad (13)$$

with robust standard errors clustered by date of signing. The controls X_k are a set of year dummies and a set of 20 dummies by general topic of the decision. The year dummies control for differences in policies across Presidents, as well as differences in the political cycle (e.g., election year vs. not). The topic dummies control for potential differences depending on area of legislation. Column 1 in Table 5 shows an estimated $\hat{\alpha}$ of .302, indicating that 30.2 percent of 'neutral' federal laws are signed on Friday or on the weekend. This share does not significantly differ for executive orders, that is, γ is not significantly different from zero. Finally, the coefficient of interest $\hat{\beta}$ equals -.076 and is significant at the 1 percent level. Therefore, $30.2 - 7.6 = 22.6$ percent of 'good' laws are signed on Friday or on weekend. The significant and negative $\hat{\beta}$ indicates that good news are 25 percent less likely to be released on Friday and on a weekend. Column 2 introduces controls X_k in specification (13). The point estimate for $\hat{\beta}$ essentially does not vary.

In Columns 3 through 6 we present alternative specifications of equation (13). In Column 3, we allow the coefficient β to differ between executive orders and federal laws. We find that the estimated coefficients are both negative and significant, with the coefficient on federal laws somewhat larger. In Column 4, we further break down the effect of good news legislation by each of the five different indicators of good news. All coefficients are negative, consistently with our finding that good news are less likely to be released on Fridays and weekends according to each of the measures. However, only one measure is significant at the 5 percent level and two more are significant at the 10 percent level. Finally, in Columns 5 and 6 we replicate the results of Columns 1 and 2 excluding the weekend signings. The dependent variable in these specifications is an indicator variable for whether the signing takes place on a Friday (signings occurring on weekends are dropped). On average, 21.8 percent of 'neutral' signings occur on Fridays, with only $21.8 - 5.9 = 15.9$ signings of 'good news' legislation occurring on Fridays (Column 5). The results are comparable after the introduction of the controls (Column 6).

We find consistent evidence that executive orders and federal laws that are more likely to benefit the President are 25 percent less likely to be signed on Fridays and weekends. This suggests that strategic release of information is likely to be a first-rate phenomenon in the political arena as well.

¹¹We obtain essentially the same results when we use a probit for Table 6.

8 Interpretation

In this Section we consider two standard explanations of the facts presented in this paper, pre-announcement release and firm heterogeneity. Next, we attempt to distinguish between three different versions of inattention and distraction.

Pre-announcement release. Companies release in advance the date of the earnings announcements. In addition, in the event of poor performance, companies may issue earnings warnings. These pre-announcement releases could explain the lower immediate reaction of stock prices to Friday announcements. Assume that companies announcing on Friday issue more earnings warnings. Additionally, the very fact of announcing on Friday could be interpreted by investors as a warning about earnings. Stock prices respond to this information before the official earnings announcement. Because the consensus forecast is not always revised to reflect these pre-announcements, the negative surprises constructed using the consensus forecast overestimate the actual magnitude of the negative surprise to market participants. This could explain a lower short-term reaction of stock returns to negative surprises. However, this interpretation does not explain the flatter short-term reaction for *positive* surprises. Further, we can directly test whether investors perceive more negative news before Friday releases. Figure 1a presents the stock response over the horizon (-30,-3) as a function of the quantiles of earnings surprises. We find no evidence of stronger pre-announcement response of stock returns to Friday announcements.

Firm heterogeneity. The return results suggest that companies choosing to announce on Friday have a lower immediate response of stock prices to earning surprises. This empirical finding could occur because the information about future cash flows embedded in earnings announcements is more transitory for these companies. This interpretation predicts that reducing the heterogeneity of the companies in the sample should reduce the effects. However, adding controls and restricting the sample to only companies that make at least one Friday and one non-Friday announcement has only a limited effect on the results. In addition, we find no evidence that in the long-run (0,75) there is less sensitivity of stock returns to Friday announcements. Finally, this interpretation does not explain why earnings surprises and returns are usually worse for Friday announcements even after controlling for all heterogeneity by introducing firm fixed effects.

Monday task overload. An attention-related interpretation for the results is that traders on Mondays are overburdened by the information that has accumulated on their desks over the weekend and they find less time to react to Friday earnings announcements. Such a story would explain why there is less next-day abnormal volume and less next-day stock response to Friday earning surprises. Two pieces of evidence are not consistent with this interpretation. First, according to this interpretation, traders should neglect any information on their desk on Monday, including the Monday earning announcements. In the data, however, there is only

mixed evidence that investors neglect Monday announcements: same-day abnormal volume is indeed lower on Monday, but same-day stock response to Monday announcements is not. (in addition, there is no evidence of firm releasing more negative news on Monday). Second, if traders are overburdened by information on Monday we would expect aggregate trading volume to be high on Monday. Instead, aggregate trading volume is about 10 percent lower on Monday compared to other days of the week.¹²

Monday distraction. Weekends can be distracting if investors find it difficult to switch back to work mode on Monday after a weekend with the family. Similarly to the Monday task overload story, this explanation predicts that investors should underreact to all pieces of information on Monday, including the Monday announcements (for which there is mixed evidence). However, unlike the Monday task overload story, this explanation predicts that aggregate trading volume should be lower on Monday, as found in the data.

Memory. A second route by which weekends can be distracting is that weekend activities crowd out the work information from short-term memory. For many market participants, family responsibilities dominate the allocation of cognitive resources over the weekend. Therefore, investors on Monday do not react as much to Friday earnings announcements because they have partially forgotten the relevant information. Investors, however, should respond fully to Monday announcements. This explanation captures the fact that most of the Monday neglect involves Friday announcements, rather than Monday announcements. It can also explain why Monday aggregate trading volume should be lower, since many of the trading ideas from the previous week are forgotten. This explanation does not explain why same-day abnormal volume for Monday announcements is lower than usual.

9 Conclusion

We have compared the reaction to earnings announcements on Friday to the reaction on other days of the week. We find that the short-term response of stock prices to Friday earning surprises is 20 to 30 percent lower than to non-Friday announcements. The differential response is due to a 60 percent lower next-day response to Friday earning announcements than to non-Friday earnings announcements. The results are robust to the introduction of controls, including company fixed effects. We observe parallel results for volume. Abnormal volume increase around the day of announcement is 20 percent smaller for Friday announcements than for non-Friday announcements. Once again, the effect is due to lower next-day volume for Friday announcements.

We also find evidence that, after the initial underreaction, stock prices respond more to earnings surprises in the subsequent period. In other words, the post-earnings announcement

¹²A way to reconcile this story with this fact is to say that individual investors are overburdened by tasks at work on Monday, and do not find the time to place their trades.

drift is stronger for Friday announcements than non-Friday announcements. This effect is large and significant, but less precisely estimated than the short-run effect. Next, we consider the combined short-term and long-term reaction. Over this horizon, releasing earnings on Friday has no permanent impact on stock prices.

The evidence is consistent with a distraction hypothesis. Over the weekend investors are distracted from work-related activities. When they return to work on Monday, the pre-weekend information is less salient in memory. As a consequence, investors initially underreact to this information. Eventually, however, market participants realize the mispricing and trade on the relevant earnings information.

We also show that firms respond to investor distraction by releasing worse announcements on Friday. The timing of bad news on Friday appears to surprise analysts as well as investors. Friday announcements are associated with a 25 percent higher probability of a negative earning surprise, as well as abnormal stock returns that are 50 basis points lower on average. In addition to manipulating accounting information directly, managers also appear to time the release of bad news.

Our results contribute to the debate on the causes of momentum and post-announcement drift. The evidence that a distracting event increases the delayed reaction supports the view that underreaction to new information is a source of the drift.

We also find that the strategic release of worse news on Friday occurs in other domains beyond corporate decisions. The United States President is 25 percent less likely to sign on Friday or on a weekend legislation that is likely to be beneficial to him. This evidence suggests that strategic release of information in response to inattention is probably important in the political arena as well. Interestingly, our findings for financial markets suggest that releasing negative information on Friday has only a temporary effect. Whether or not the timing of political news releases has permanent effect on voters is an open question.

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Figure 1a: Response To Earnings Surprise From -30 To -3

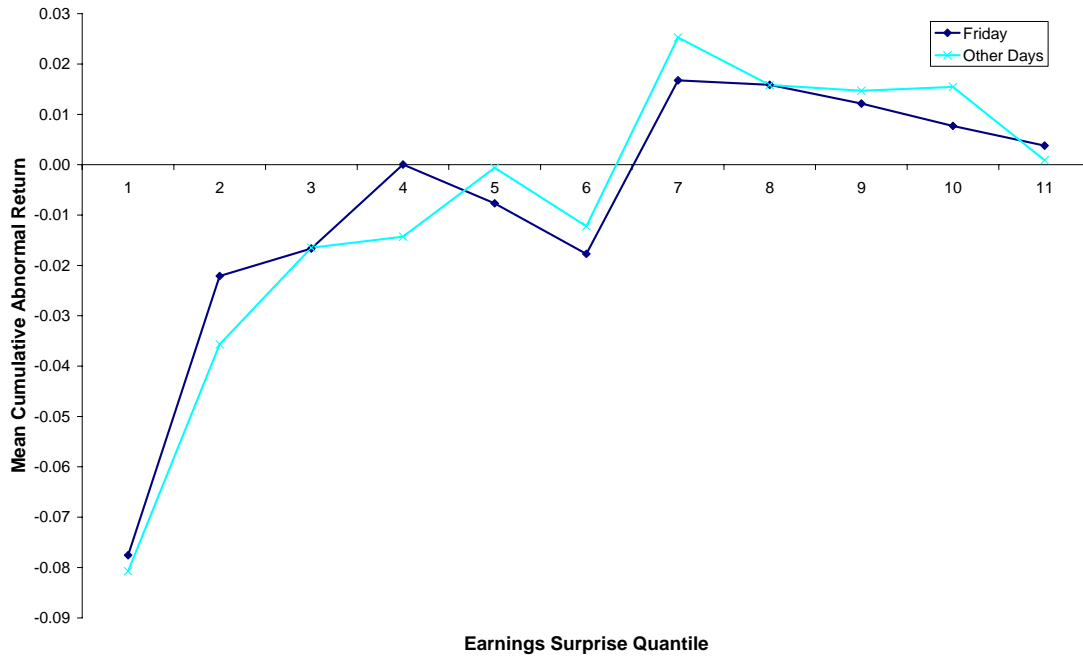
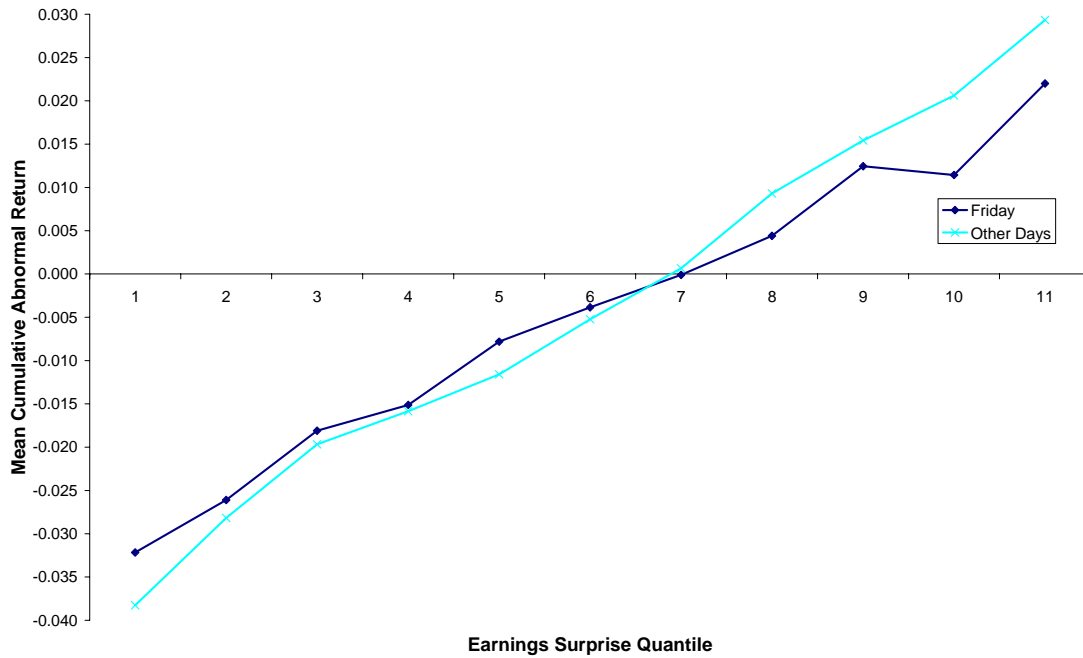


Figure 1b: Response To Earnings Surprise From 0 To +1



Notes: The cumulative abnormal return for each stock is the raw buy-and-hold return adjusted using the estimated beta from market model. Quantiles 1 through 5 contain earnings announcements for five quintiles of negative earnings surprises and quantiles 7 through 11 contain earnings surprises for 5 quintiles of positive earnings surprises. Quantile 6 contains all announcements with an earnings surprise equal to zero. Let $F(q)$ be the mean on Fridays and $NF(q)$ be the mean on Other Days for quantile q , then $F(11)-F(1)-[NF(1)-NF(11)]$ is statistically different from 0 at the 1% level in Figure 1b.

Figure 1c: Response To Earnings Surprise From +3 To +75

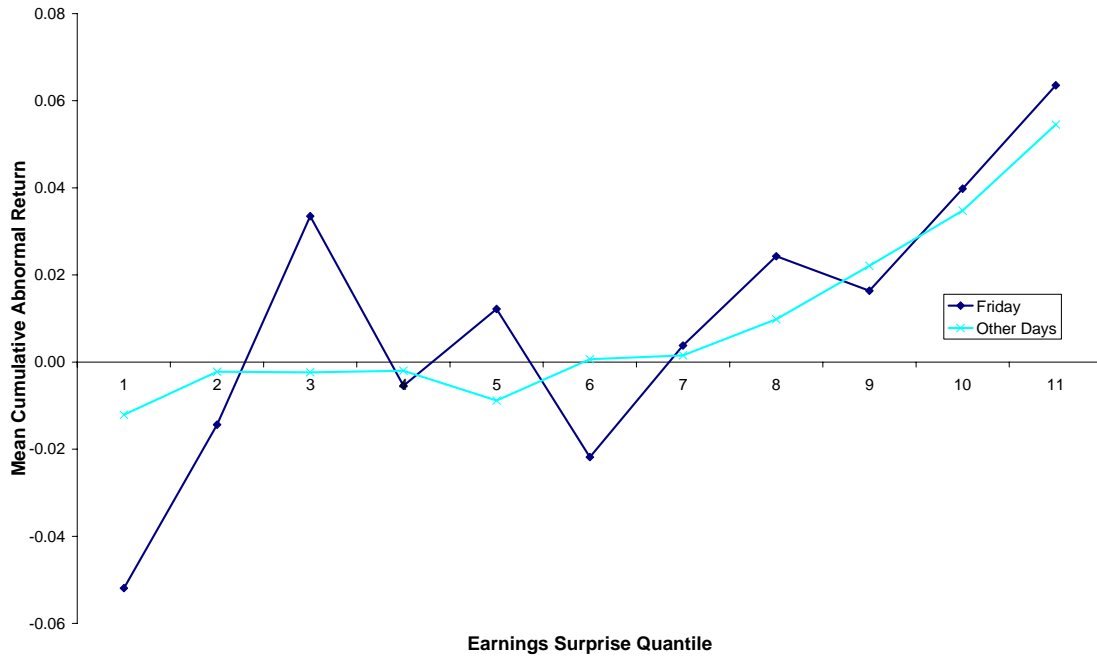
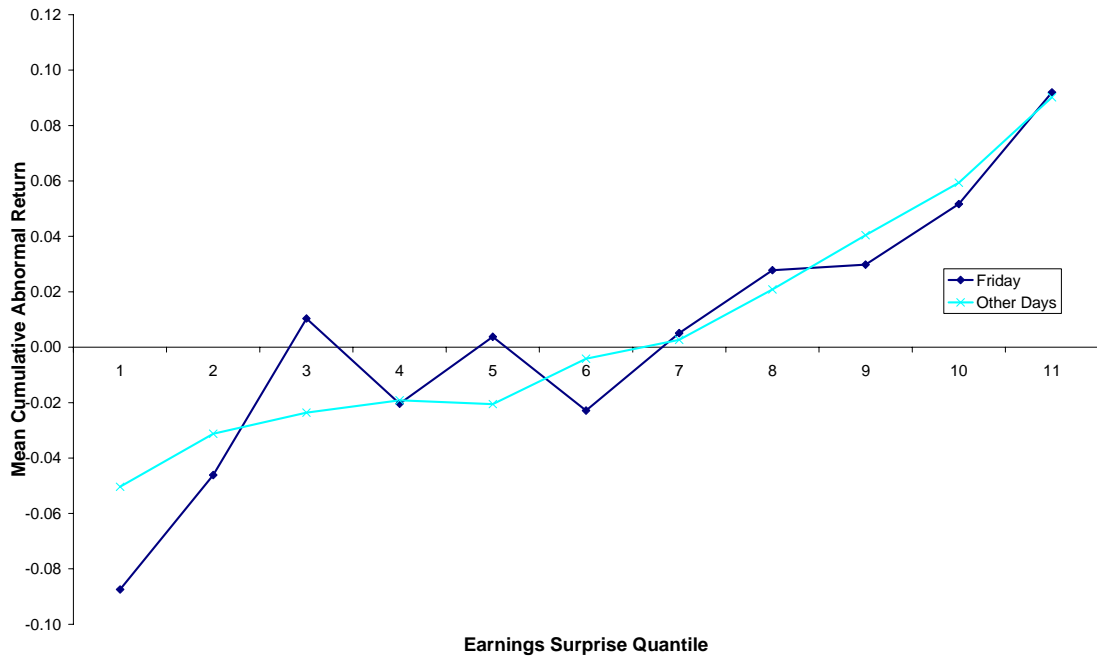
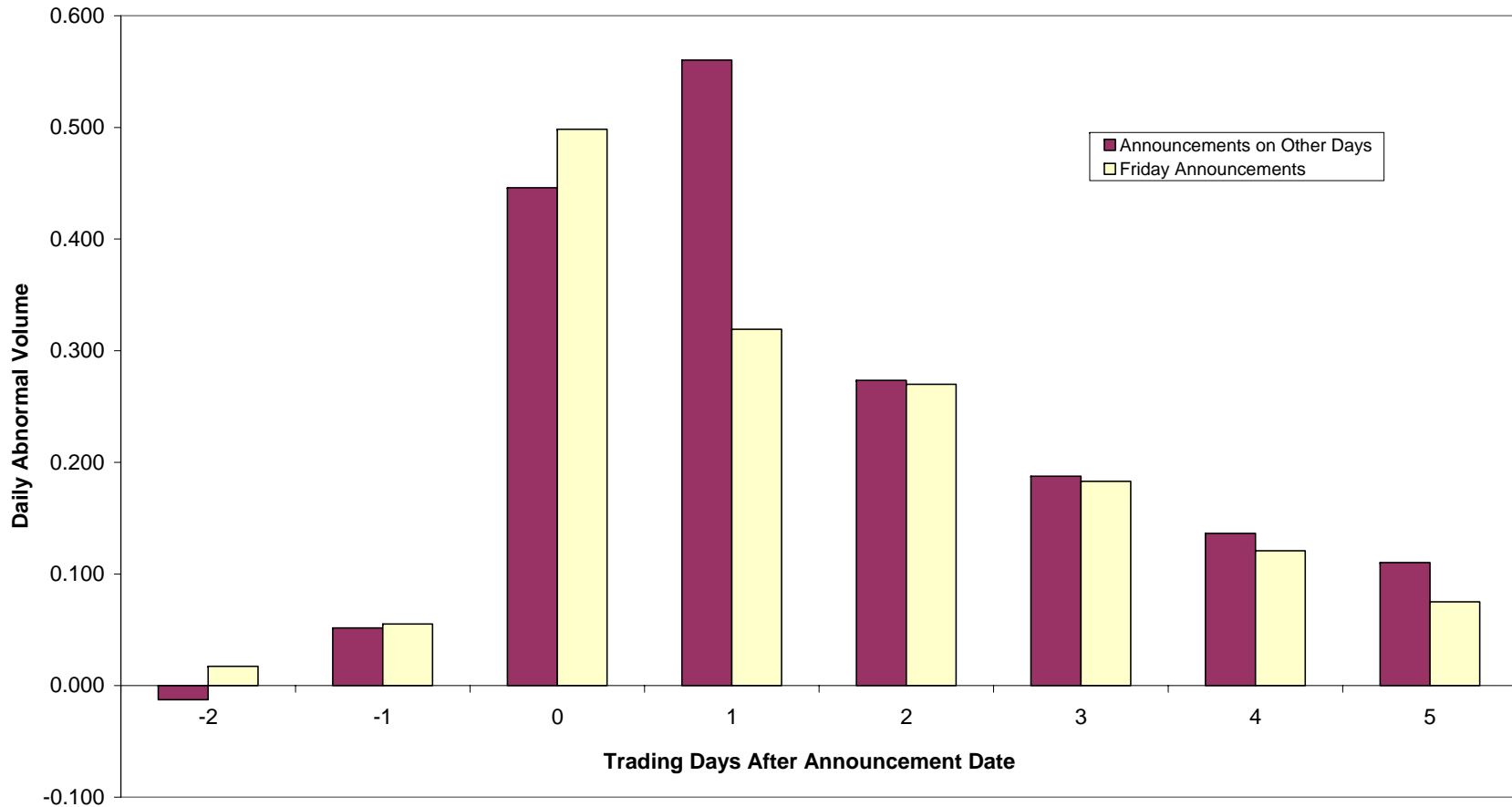


Figure 1d: Response To Earnings Surprise From 0 To +75



Notes: The cumulative abnormal return for each stock is the raw buy-and-hold return adjusted using the estimated beta from market model. Quantiles 1 through 5 contain earnings announcements for five quintiles of negative earnings surprises and quantiles 7 through 11 contain earnings surprises for 5 quintiles of positive earnings surprises. Quantile 6 contains all announcements with an earnings surprise equal to zero. Let $F(q)$ be the mean on Fridays and $NF(q)$ be the mean on Other Days for quantile q , then $F(11)-F(1)-[NF(1)-NF(11)]$ is statistically different from 0 at the 1% level in Figure 1c but it is not statistically different in Figure 1d.

Figure 2: Patterns of Abnormal Volume Associated Earnings Announcements



Notes: In event time, day 0 is the day of the earnings announcement. The abnormal volume for each stock for a given event period is the average daily log volume during the period divided by the average log volume for the period -20 to -11 in event time (10 trading days). The earnings surprise for a particular quarterly announcement is the difference between actual earnings per share for the quarter recorded by I/B/E/S and the median analyst forecast included in the I/B/E/S detail file during the 30 days before the quarterly earnings announcement scaled by the stock price 5 trading days before the announcement.

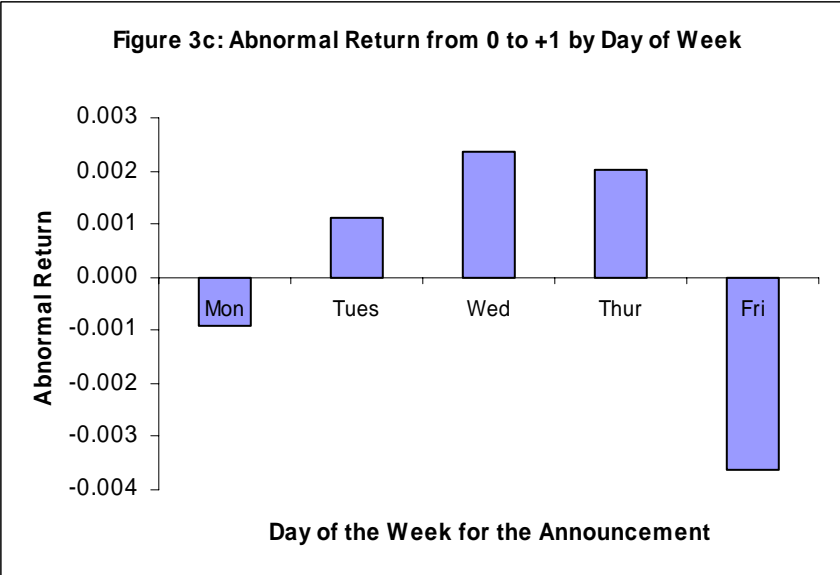
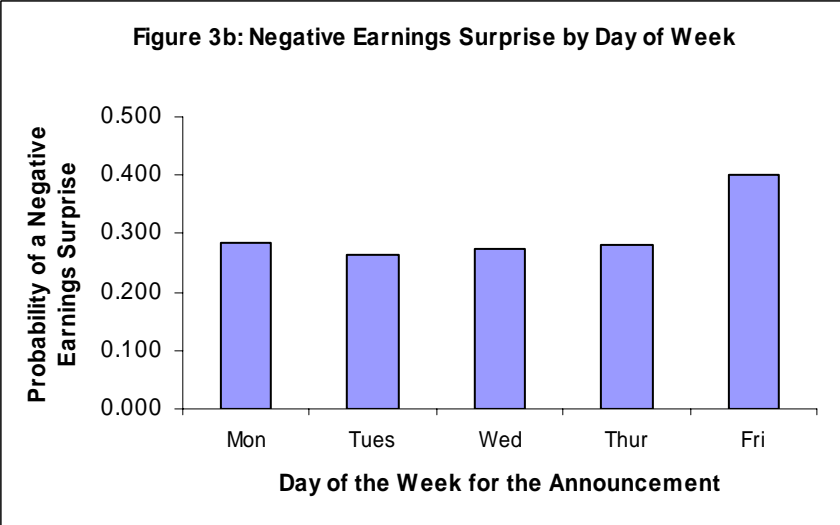
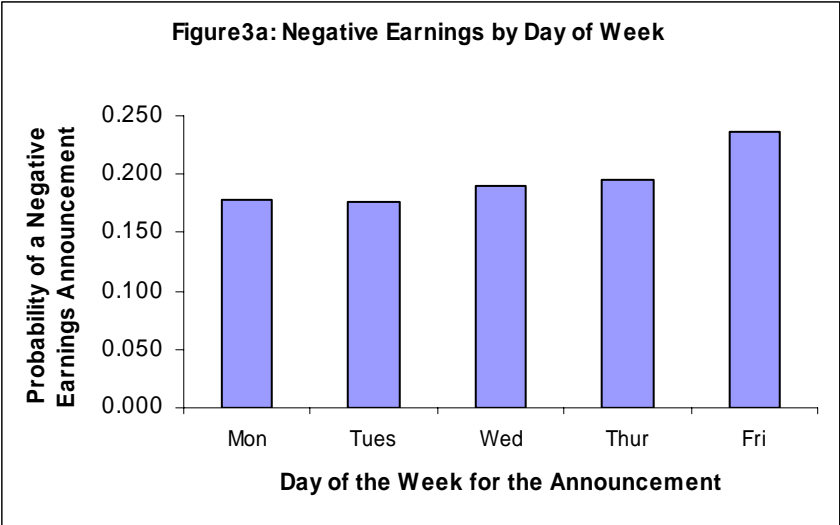
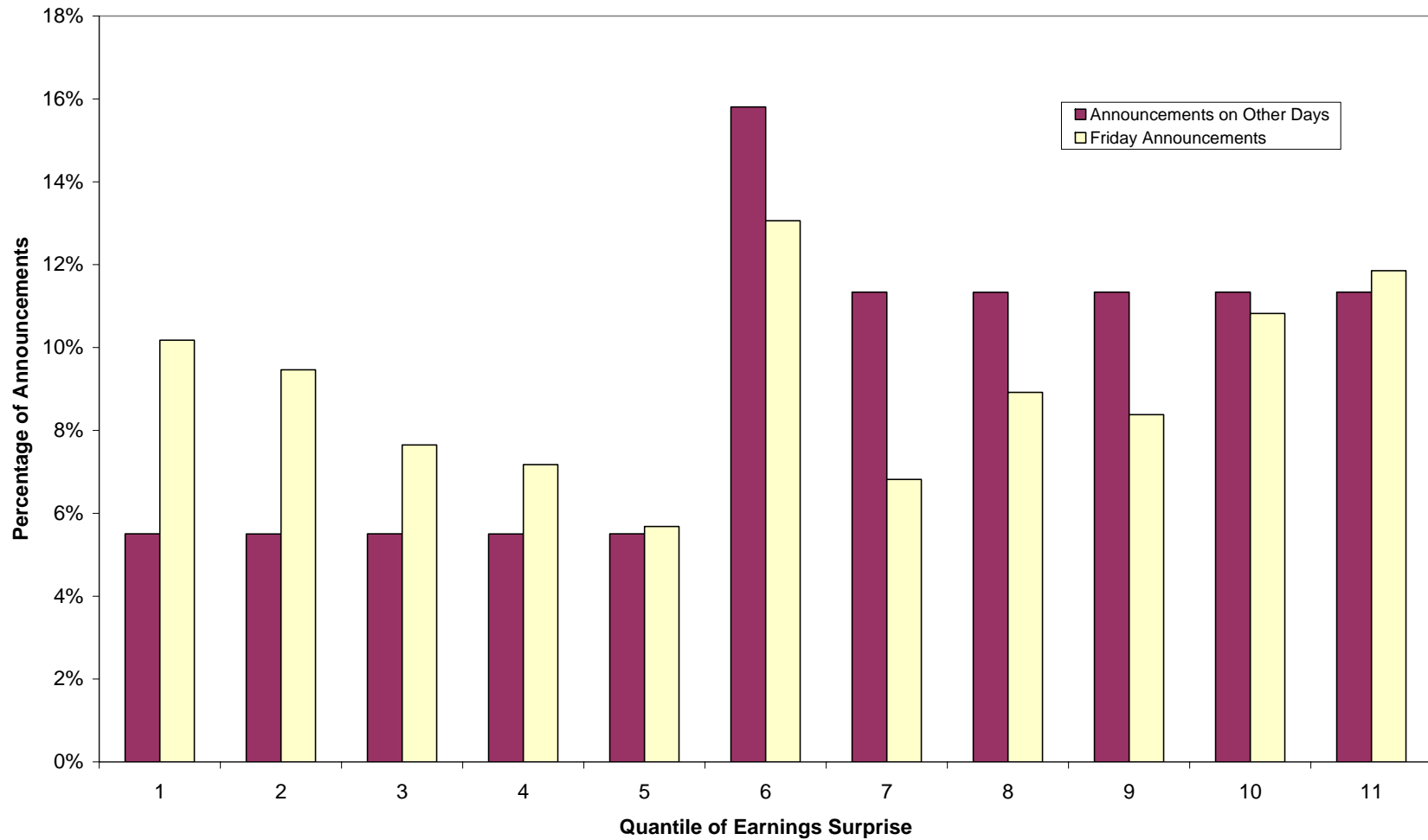


Figure 4: Histogram of Surprises By Quantile For Friday and Other Days



Notes: The earnings surprise for a particular quarterly announcement is the difference between actual earnings for the quarter recorded by I/B/E/S and the median analyst forecast included in the I/B/E/S detail file during the 30 days before the quarterly earnings announcement scaled by the stock price 5 trading days before the announcement. Quantiles 1 through 5 contain earnings announcements for five quintiles of negative earnings surprises and quantiles 7 through 11 contain earnings surprises for 5 quintiles of positive earnings surprises. Quantile number 6 contains all announcements with an earnings surprise equal to zero. Since the number of negative earnings surprises, the number of surprises equal to zero, and the number of positive earnings surprises are not equal, the number of observations in each quantile must differ. The magnitudes are statistically different at the 1% level for quantiles 1, 2, 3, 4, 6, 7, 8, and 9.

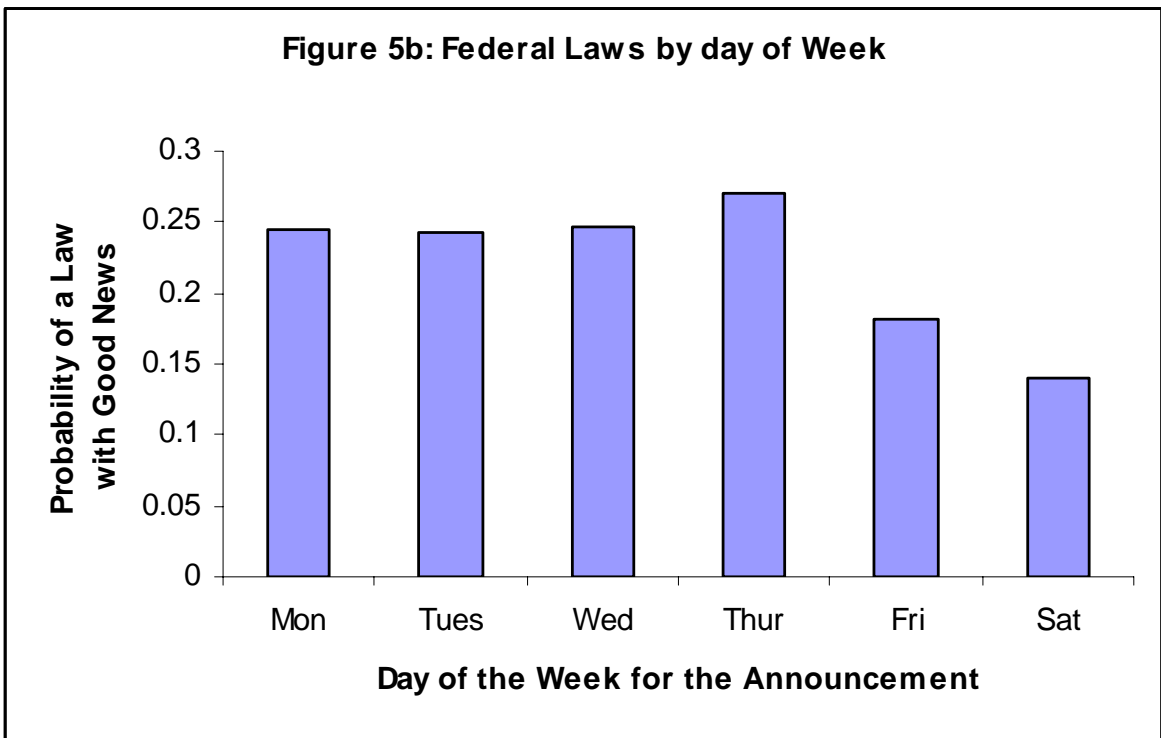
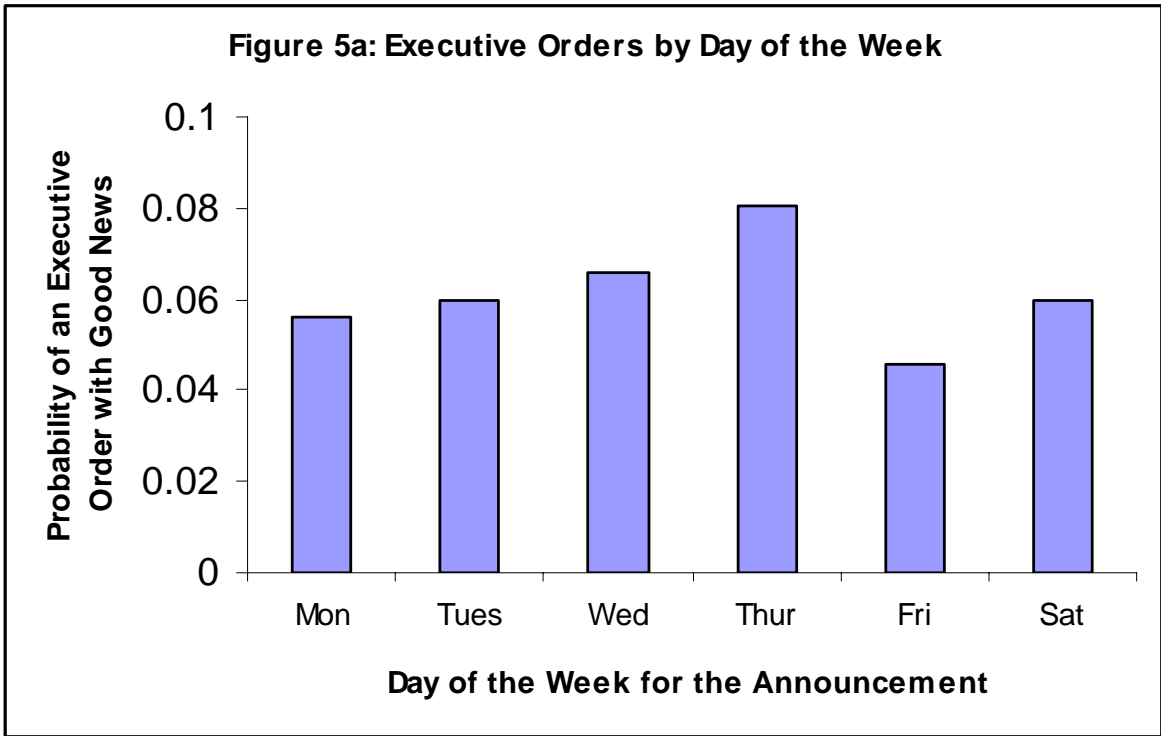


Table 1. Summary Statistics For Timing of Earnings Announcements

Year	Panel A: Number of Earnings Announcements by Day of the Week				
	Monday	Tuesday	Wednesday	Thursday	Friday
1995	2024	2954	2754	3134	911
1996	2059	3181	3077	3500	932
1997	2146	3489	3364	3863	791
1998	2000	3633	3472	3945	826
1999	1877	3569	3383	3938	789
2000	1709	3341	3369	3867	630
2001	1347	2758	2859	3279	513
2002	771	1833	1903	2181	307
2003	525	1190	1315	1477	197

Notes: From 1995 to 2003 publicly traded stocks in CRSP are matched to earnings announcements recorded in Compustat and I/B/E/S. The date for the earnings announcement is imputed using the recorded announcement dates for Compustat and CRSP and a simple algorithm described in the text.

Table 2. Characteristics of Stocks Classified by Earnings Surprise Quantile and Day of Week

	1 Low	2	3	4	5	6 Surprise=0	7	8	9	10	11 High	High _{fri} -Low _{fri} - (High _{oth} -Low _{oth})
Panel A: Mean Cumulative Abnormal Return by Earning Surprise Quantile in Event Time From -30 to -3												
Friday	-0.0775 (0.0077)	-0.0221 (0.0080)	-0.0166 (0.0089)	0.0001 (0.0092)	-0.0077 (0.0103)	-0.0177 (0.0068)	0.0168 (0.0094)	0.0159 (0.0083)	0.0122 (0.0085)	0.0077 (0.0075)	0.0038 (0.0072)	
Other Days	-0.0807 (0.0026)	-0.0357 (0.0026)	-0.0165 (0.0026)	-0.0143 (0.0026)	-0.0006 (0.0026)	-0.0122 (0.0015)	0.0253 (0.0018)	0.0158 (0.0018)	0.0147 (0.0018)	0.0155 (0.0018)	0.0009 (0.0018)	-0.0003 (0.0110)
Panel B: Mean Cumulative Abnormal Return by Earning Surprise Quantile in Event Time From 0 to +1												
Friday	-0.0322 (0.0033)	-0.0261 (0.0034)	-0.0181 (0.0038)	-0.0151 (0.0039)	-0.0078 (0.0044)	-0.0039 (0.0029)	-0.0001 (0.0040)	0.0044 (0.0035)	0.0124 (0.0036)	0.0114 (0.0032)	0.0220 (0.0031)	
Other Days	-0.0383 (0.0011)	-0.0282 (0.0011)	-0.0197 (0.0011)	-0.0158 (0.0011)	-0.0116 (0.0011)	-0.0052 (0.0007)	0.0007 (0.0008)	0.0093 (0.0008)	0.0154 (0.0008)	0.0206 (0.0008)	0.0293 (0.0008)	-0.0134 (0.0051)
Panel C: Mean Cumulative Abnormal Return by Earning Surprise Quantile in Event Time From +3 to +75												
Friday	-0.0519 (0.0141)	-0.0144 (0.0146)	0.0335 (0.0162)	-0.0054 (0.0168)	0.0122 (0.0188)	-0.0218 (0.0124)	0.0038 (0.0172)	0.0243 (0.0150)	0.0164 (0.0155)	0.0398 (0.0136)	0.0635 (0.0130)	
Other Days	-0.0121 (0.0048)	-0.0022 (0.0048)	-0.0023 (0.0048)	-0.0020 (0.0048)	-0.0088 (0.0048)	0.0006 (0.0028)	0.0015 (0.0033)	0.0098 (0.0033)	0.0221 (0.0033)	0.0348 (0.0033)	0.0545 (0.0033)	0.0488 (0.0200)
Panel D: Mean Cumulative Abnormal Return by Earning Surprise Quantile in Event Time From 0 to +75												
Friday	-0.0874 (0.0148)	-0.0462 (0.0154)	0.0104 (0.0171)	-0.0204 (0.0176)	0.0037 (0.0198)	-0.0228 (0.0131)	0.0051 (0.0181)	0.0278 (0.0158)	0.0298 (0.0163)	0.0517 (0.0144)	0.0920 (0.0137)	
Other Days	-0.0504 (0.0050)	-0.0312 (0.0050)	-0.0236 (0.0050)	-0.0192 (0.0050)	-0.0206 (0.0050)	-0.0041 (0.0030)	0.0026 (0.0035)	0.0209 (0.0035)	0.0404 (0.0035)	0.0594 (0.0035)	0.0902 (0.0035)	0.0388 (0.0211)
Panel E: Mean Surprise by Earning Surprise Quantile												
Friday	-0.054664 600	-0.006750 558	-0.002532 451	-0.001050 423	-0.000359 335	0.000000 770	0.000297 402	0.000694 526	0.001312 494	0.002752 638	0.016745 699	
Other Days	-0.049016 5233	-0.006537 5231	-0.002535 5235	-0.001057 5231	-0.000363 5235	0.000000 15030	0.000295 10778	0.000688 10777	0.001329 10779	0.002734 10778	0.015703 10779	0.006690

Notes: Publicly traded stocks in CRSP are matched to earnings announcements recorded in Compustat and I/B/E/S for the period 1995 to 2003. In event time, day 0 is the day of the earnings announcement. The cumulative abnormal return for each stock is the raw buy-and-hold return adjusted using the estimated beta from market model. The earnings surprise for a particular quarterly announcement is the difference between actual earnings for the quarter recorded by I/B/E/S and the median analyst forecast included in the I/B/E/S detail file during the 30 days before the quarterly earnings announcement scaled by the stock price 5 trading days before the announcement. Quantiles 1 through 5 contain earnings announcements for five quintiles of negative earnings surprises and quantiles 7 through 11 contain earnings surprises for 5 quintiles of positive earnings surprises. Quantile number 6 contains all announcements with an earnings surprise equal to zero. Since the number of negative earnings surprises, the number of surprises equal to zero, and the number of positive earnings surprises are not equal, the number of observations in each quantile must differ. Announcements that appear to be made on Saturday or Sunday are excluded from this analysis.

Table 3. Short-term Stock Price Response to an Earnings Announcement

Panel A: The dependent variable is the abnormal return in event time from 0 to 0						
	(1)	(2)	(3)	(4)	(5)	(6)
Earnings Surprise	1.8185 (0.0558)***	1.3261 (0.2438)***	1.4619 (0.3681)***	1.3290 (0.2082)***	1.3922 (0.2951)***	1.3769 (0.2703)***
Earnings Surprise * Friday	0.2221 (0.2219)	0.2715 (0.2238)	0.1619 (0.2425)	0.4297 (0.1624)***	0.3961 (0.1653)**	0.2228 (0.2531)
Earnings Surprise * Thursday						0.0046 (0.1698)
Earnings Surprise * Wednesday						-0.2542 (0.1717)
Earnings Surprise * Tuesday						0.0768 (0.1639)
Controls		X	X	X	X	X
Earnings Surprise * Controls		X	X	X	X	X
Companies w/ Friday and Non-Friday Events			X		X	
Company Fixed Effects				X	X	
Clustering by Day	X	X	X			X
R²	0.0217	0.0248	0.0322	0.0280	0.0363	0.0250
N	N = 95666	N = 95413	N = 41957	N = 95413	N = 41957	N = 95413
Panel B: The dependent variable is the abnormal return in event time from +1 to +1						
	(1)	(2)	(3)	(4)	(5)	(6)
Earnings Surprise	1.6478 (0.0628)***	0.8021 (0.2498)***	1.0082 (0.3222)***	0.6426 (0.2353)***	0.9431 (0.2792)***	0.8952 (0.2842)***
Earnings Surprise * Friday	-1.3501 (0.1779)***	-1.2477 (0.1836)***	-0.8996 (0.1912)***	-1.2382 (0.1835)***	-0.8610 (0.1564)***	-1.3207 (0.2265)***
Earnings Surprise * Thursday						-0.3036 (0.1870)
Earnings Surprise * Wednesday						-0.0103 (0.1859)
Earnings Surprise * Tuesday						0.0989 (0.1933)
Controls		X	X	X	X	X
Earnings Surprise * Controls		X	X	X	X	X
Companies w/ Friday and Non-Friday Events			X		X	
Company Fixed Effects				X	X	
Clustering by Day	X	X	X			X
R²	0.0126	0.0157	0.0141	0.0197	0.0168	0.0159
N	N = 95666	N = 95413	N = 41957	N = 95413	N = 41957	N = 95413

Notes: From 1995 to 2003 publicly traded stocks in CRSP are matched to earnings announcements recorded in Compustat and I/B/E/S. In event time, day 0 is the day of the earnings announcement. The abnormal return for each stock is the beta-adjusted return adjusted using the market model. If a period contains more than one day, the abnormal return is the sum of the abnormal return for each constituent day (this measure is not a buy-and-hold return). The earnings surprise for a particular quarterly announcement is the difference between actual earnings for the quarter recorded by I/B/E/S and the median analyst forecast included in the I/B/E/S detail file during the 30 days before the quarterly earnings announcement scaled by the stock price 5 trading days before the announcement. Any variable that appears in an interaction term is also included in levels, but the estimated coefficients are suppressed. Robust standard errors clustered by day of announcement are in parentheses unless otherwise indicated. The set of additional control variables includes the market capitalization deciles, year dummies, and month dummies. Announcements that appear to be made on Saturday or Sunday are excluded from this analysis.

* significant at 10%; ** significant at 5%; *** significant at 1%

Table 3 (Continued). Short-term Stock Price Response to an Earnings Announcement

Panel C: The dependent variable is the abnormal return in event time from 0 to +1						
	(1)	(2)	(3)	(4)	(5)	(6)
Earnings Surprise	3.4663 (0.0867)***	2.1282 (0.3275)***	2.4701 (0.4764)***	1.9717 (0.3107)***	2.3354 (0.4058)***	2.2721 (0.3741)***
Earnings Surprise * Friday	-1.1280 (0.2836)***	-0.9761 (0.2860)***	-0.7377 (0.3074)**	-0.8085 (0.2423)***	-0.4649 (0.2273)**	-1.0979 (0.3409)***
Earnings Surprise * Thursday						-0.2990 (0.2569)
Earnings Surprise * Wednesday						-0.2645 (0.2609)
Earnings Surprise * Tuesday						0.1757 (0.2579)
Controls		X	X	X	X	X
Earnings Surprise * Controls		X	X	X	X	X
Companies w/ Friday and Non-Friday Events			X		X	
Company Fixed Effects				X	X	
Clustering by Day	X	X	X			X
R²	0.0325	0.0368	0.0404	0.0446	0.0477	0.0371
N	N = 95666	N = 95413	N = 41957	N = 95413	N = 41957	N = 95413

Notes: From 1995 to 2003 publicly traded stocks in CRSP are matched to earnings announcements recorded in Compustat and I/B/E/S. In event time, day 0 is the day of the earnings announcement. The abnormal return for each stock is the beta-adjusted return adjusted using the market model. If a period contains more than one day, the abnormal return is the sum of the abnormal return for each constituent day (this measure is not a buy-and-hold return). The earnings surprise for a particular quarterly announcement is the difference between actual earnings for the quarter recorded by I/B/E/S and the median analyst forecast included in the I/B/E/S detail file during the 30 days before the quarterly earnings announcement scaled by the stock price 5 trading days before the announcement. Any variable that appears in an interaction term is also included in levels, but the estimated coefficients are suppressed. Robust standard errors clustered by day of announcement are in parentheses unless otherwise indicated. The set of additional control variables includes the market capitalization deciles, year dummies, and month dummies. Announcements that appear to be made on Saturday or Sunday are excluded from this analysis.

* significant at 10%; ** significant at 5%; *** significant at 1%

Table 4. Short-term Volume Response to an Earnings Announcement

Panel A: The dependent variable is the abnormal volume in event time from 0 to 0						
	(1)	(2)	(3)	(4)	(5)	(6)
Constant	0.4562 (0.0176)***	0.6596 (0.0288)***	0.7309 (0.0405)***	0.5076 (0.0259)***	0.5110 (0.0397)***	0.5595 (0.0313)***
Earnings Surprise Quantile 2	-0.0053 (0.0213)	0.0091 (0.0214)	0.0400 (0.0330)	0.0056 (0.0201)	0.0545 (0.0294)*	0.0084 (0.0213)
Earnings Surprise Quantile 3	-0.0422 (0.0219)*	-0.0132 (0.0222)	-0.0234 (0.0328)	-0.0374 (0.0205)*	-0.0419 (0.0301)	-0.0146 (0.0222)
Earnings Surprise Quantile 4	-0.0154 (0.0223)	0.0256 (0.0223)	-0.0041 (0.0333)	-0.0064 (0.0209)	-0.0309 (0.0308)	0.0251 (0.0223)
Earnings Surprise Quantile 5	-0.0819 (0.0220)***	-0.0261 (0.0222)	-0.0729 (0.0331)**	-0.0900 (0.0216)***	-0.1434 (0.0320)***	-0.0263 (0.0222)
Earnings Surprise Quantile 6	-0.0883 (0.0187)***	-0.0326 (0.0190)*	-0.0560 (0.0289)*	-0.1391 (0.0182)***	-0.1625 (0.0274)***	-0.0346 (0.0190)*
Earnings Surprise Quantile 7	-0.0715 (0.0191)***	0.0116 (0.0191)	-0.0205 (0.0301)	-0.1386 (0.0198)***	-0.1801 (0.0299)***	0.0102 (0.0190)
Earnings Surprise Quantile 8	-0.0381 (0.0199)*	0.0308 (0.0198)	0.0112 (0.0297)	-0.1050 (0.0192)***	-0.1319 (0.0289)***	0.0300 (0.0197)
Earnings Surprise Quantile 9	0.0018 (0.0193)	0.0624 (0.0196)***	0.0423 (0.0298)	-0.0393 (0.0188)**	-0.0560 (0.0283)**	0.0615 (0.0196)***
Earnings Surprise Quantile 10	0.0640 (0.0195)***	0.1178 (0.0195)***	0.0978 (0.0295)***	0.0461 (0.0184)**	0.0332 -0.0275	0.1170 (0.0195)***
Earnings Surprise Quantile 11	0.1486 (0.0199)***	0.1907 (0.0200)***	0.1743 (0.0297)***	0.1816 (0.0177)***	0.1744 (0.0264)***	0.1906 (0.0200)***
Friday	0.0466 (0.0218)**	0.0240 (0.0180)	0.0127 (0.0189)	0.0497 (0.0150)***	0.0498 (0.0151)***	0.1261 (0.0224)***
Thursday						0.1125 (0.0179)***
Wednesday						0.1103 (0.0185)***
Tuesday						0.1362 (0.0175)***
Controls		X	X	X	X	X
Companies w/ Friday and Non-Friday Events			X		X	
Company Fixed Effects				X	X	
Clustering by Day	X	X	X			X
R²	0.0053	0.0245	0.0275	0.0186	0.0208	0.0262
N	N = 97143	N = 97143	N = 42467	N = 97143	N = 42467	N = 97143

Notes: From 1995 to 2003 publicly traded stocks in CRSP are matched to earnings announcements recorded in Compustat and I/B/E/S. In event time, day 0 is the day of the earnings announcement. The abnormal volume for each stock for a given event period is the average daily log volume during the period divided by the average log volume for the period -20 to -11 in event time (10 trading days). The earnings surprise for a particular quarterly announcement is the difference between actual earnings per share for the quarter recorded by I/B/E/S and the median analyst forecast included in the I/B/E/S detail file during the 30 days before the quarterly earnings announcement scaled by the stock price 5 trading days before the announcement. Robust standard errors clustered by day of announcement are in parentheses unless otherwise indicated. The set of additional control variables includes the market capitalization decile dummies, year dummies, and month dummies. Announcements that appear to be made on Saturday or Sunday are excluded from this analysis.

* significant at 10%; ** significant at 5%; *** significant at 1%

Table 4 (Continued). Short-term Volume Response to an Earnings Announcement

Panel B: The dependent variable is the abnormal volume in event time from +1 to +1						
	(1)	(2)	(3)	(4)	(5)	(6)
Constant	0.6557 (0.0179)***	0.8056 (0.0313)***	0.8059 (0.0416)***	0.6455 (0.0262)***	0.6187 (0.0398)***	0.8831 (0.0328)***
Earnings Surprise Quantile 2	-0.0358 (0.0229)	-0.0239 (0.0229)	-0.0015 (0.0347)	-0.0204 (0.0203)	-0.0066 (0.0295)	-0.0249 (0.0229)
Earnings Surprise Quantile 3	-0.1279 (0.0217)***	-0.1021 (0.0221)***	-0.1049 (0.0326)***	-0.1072 (0.0208)***	-0.1362 (0.0302)***	-0.1028 (0.0221)***
Earnings Surprise Quantile 4	-0.1332 (0.0220)***	-0.0982 (0.0220)***	-0.1125 (0.0333)***	-0.1223 (0.0212)***	-0.1684 (0.0309)***	-0.0994 (0.0220)***
Earnings Surprise Quantile 5	-0.1642 (0.0219)***	-0.1086 (0.0221)***	-0.0931 (0.0326)***	-0.1574 (0.0219)***	-0.1691 (0.0321)***	-0.1105 (0.0221)***
Earnings Surprise Quantile 6	-0.1740 (0.0191)***	-0.1249 (0.0194)***	-0.1288 (0.0294)***	-0.2259 (0.0184)***	-0.2488 (0.0275)***	-0.1272 (0.0193)***
Earnings Surprise Quantile 7	-0.1653 (0.0200)***	-0.0821 (0.0200)***	-0.1093 (0.0310)***	-0.2573 (0.0200)***	-0.2680 (0.0300)***	-0.0844 (0.0200)***
Earnings Surprise Quantile 8	-0.1138 (0.0202)***	-0.0558 (0.0203)***	-0.0832 (0.0301)***	-0.2097 (0.0194)***	-0.2360 (0.0290)***	-0.0578 (0.0203)***
Earnings Surprise Quantile 9	-0.0892 (0.0199)***	-0.0396 (0.0201)**	-0.0798 (0.0304)***	-0.1488 (0.0191)***	-0.1925 (0.0284)***	-0.0413 (0.0201)**
Earnings Surprise Quantile 10	-0.0468 (0.0194)**	-0.0049 -0.0197	-0.0185 -0.0297	-0.0659 (0.0186)***	-0.0793 (0.0276)***	-0.0070 -0.0196
Earnings Surprise Quantile 11	0.0413 (0.0201)**	0.0727 (0.0202)***	0.0554 (0.0299)*	0.0842 (0.0179)***	0.0577 (0.0265)**	0.0709 (0.0202)***
Friday	-0.2522 (0.0203)***	-0.2685 (0.0179)***	-0.1975 (0.0181)***	-0.1500 (0.0152)***	-0.1496 (0.0152)***	-0.3443 (0.0215)***
Thursday						-0.1420 (0.0180)***
Wednesday						-0.0763 (0.0178)***
Tuesday						-0.0405 (0.0168)**
Controls		X	X	X	X	X
Companies w/ Friday and Non-Friday Events			X		X	
Company Fixed Effects				X	X	
Clustering by Day	X	X	X			X
R²	0.0077	0.0215	0.0251	0.0179	0.0190	0.0237
N	N = 97143	N = 97143	N = 42467	N = 97143	N = 42467	N = 97143

Notes: From 1995 to 2003 publicly traded stocks in CRSP are matched to earnings announcements recorded in Compustat and I/B/E/S. In event time, day 0 is the day of the earnings announcement. The abnormal volume for each stock for a given event period is the average daily log volume during the period divided by the average log volume for the period -20 to -11 in event time (10 trading days). The earnings surprise for a particular quarterly announcement is the difference between actual earnings per share for the quarter recorded by I/B/E/S and the median analyst forecast included in the I/B/E/S detail file during the 30 days before the quarterly earnings announcement scaled by the stock price 5 trading days before the announcement. Robust standard errors clustered by day of announcement are in parentheses unless otherwise indicated. The set of additional control variables includes the market capitalization decile dummies, year dummies, and month dummies. Announcements that appear to be made on Saturday or Sunday are excluded from this analysis.

* significant at 10%; ** significant at 5%; *** significant at 1%

Table 4 (Continued Again). Short-term Volume Response to an Earnings Announcement

Panel C: The dependent variable is the abnormal volume in event time from 0 to +1						
	(1)	(2)	(3)	(4)	(5)	(6)
Constant	0.5518 (0.0154)***	0.7241 (0.0263)***	0.7604 (0.0359)***	0.5707 (0.0221)***	0.5629 (0.0338)***	0.7127 (0.0282)***
Earnings Surprise Quantile 2	-0.0173 (0.0186)	-0.0057 (0.0186)	0.0202 (0.0287)	-0.0025 (0.0172)	0.0310 (0.0251)	-0.0066 (0.0186)
Earnings Surprise Quantile 3	-0.0839 (0.0184)***	-0.0589 (0.0185)***	-0.0675 (0.0279)**	-0.0694 (0.0176)***	-0.0863 (0.0257)***	-0.0599 (0.0185)***
Earnings Surprise Quantile 4	-0.0736 (0.0188)***	-0.0384 (0.0186)**	-0.0608 (0.0287)**	-0.0620 (0.0179)***	-0.0963 (0.0263)***	-0.0393 (0.0186)**
Earnings Surprise Quantile 5	-0.1192 (0.0187)***	-0.0673 (0.0186)***	-0.0845 (0.0285)***	-0.1190 (0.0185)***	-0.1525 (0.0273)***	-0.0684 (0.0186)***
Earnings Surprise Quantile 6	-0.1278 (0.0162)***	-0.0782 (0.0163)***	-0.0927 (0.0254)***	-0.1767 (0.0156)***	-0.2000 (0.0234)***	-0.0804 (0.0163)***
Earnings Surprise Quantile 7	-0.1146 (0.0170)***	-0.0356 (0.0166)**	-0.0668 (0.0267)**	-0.1931 (0.0169)***	-0.2185 (0.0256)***	-0.0375 (0.0166)**
Earnings Surprise Quantile 8	-0.0733 (0.0173)***	-0.0135 (0.0169)	-0.0365 (0.0255)	-0.1539 (0.0164)***	-0.1778 (0.0247)***	-0.0149 (0.0169)
Earnings Surprise Quantile 9	-0.0404 (0.0167)**	0.0118 (0.0166)	-0.0190 (0.0260)	-0.0884 (0.0161)***	-0.1180 (0.0241)***	0.0105 (0.0166)
Earnings Surprise Quantile 10	0.0101 -0.0164	0.0553 (0.0164)***	0.0387 -0.0255	-0.0065 -0.0157	-0.0178 -0.0235	0.0539 (0.0164)***
Earnings Surprise Quantile 11	0.0964 (0.0171)***	0.1317 (0.0172)***	0.1133 (0.0258)***	0.1367 (0.0151)***	0.1204 (0.0225)***	0.1307 (0.0172)***
Friday	-0.1019 (0.0195)***	-0.1212 (0.0161)***	-0.0918 (0.0167)***	-0.0488 (0.0128)***	-0.0487 (0.0129)***	-0.1079 (0.0196)***
Thursday						-0.0142 (0.0161)
Wednesday						0.0166 (0.0162)
Tuesday						0.0483 (0.0151)***
Controls		X	X	X	X	X
Companies w/ Friday and Non-Friday Events			X		X	
Company Fixed Effects				X	X	
Clustering by Day	X	X	X			X
R²	0.0070	0.0284	0.0328	0.0236	0.0248	0.0291
N	N = 97143	N = 97143	N = 42467	N = 97143	N = 42467	N = 97143

Notes: From 1995 to 2003 publicly traded stocks in CRSP are matched to earnings announcements recorded in Compustat and I/B/E/S. In event time, day 0 is the day of the earnings announcement. The abnormal volume for each stock for a given event period is the average daily log volume during the period divided by the average log volume for the period -20 to -11 in event time (10 trading days). The earnings surprise for a particular quarterly announcement is the difference between actual earnings per share for the quarter recorded by I/B/E/S and the median analyst forecast included in the I/B/E/S detail file during the 30 days before the quarterly earnings announcement scaled by the stock price 5 trading days before the announcement. Robust standard errors clustered by day of announcement are in parentheses unless otherwise indicated. The set of additional control variables includes the market capitalization decile dummies, year dummies, and month dummies. Announcements that appear to be made on Saturday or Sunday are excluded from this analysis.

* significant at 10%; ** significant at 5%; *** significant at 1%

Table 5. Firm Timing of Earnings Announcements

Panel A: The dependent variable is a dummy for negative I/B/E/S earnings					
	(1)	(2)	(3)	(4)	(5)
Constant	0.1863 (0.0033)***	0.3188 (0.0081)***	0.2490 (0.0101)***	0.4766 (0.0063)***	0.3095 (0.0087)***
Friday	0.0503 (0.0109)***	0.0362 (0.0075)***	0.0506 (0.0071)***	0.0407 (0.0040)***	0.0454 (0.0082)***
Thursday					0.0188 (0.0053)***
Wednesday					0.0104 (0.0050)**
Tuesday					0.0026 (0.0052)
Controls		X	X	X	X
Companies w/ Friday and Non-Friday Events			X		
Company Fixed Effects				X	
Clustering by Day	X	X	X		X
R²	0.0009	0.1128	0.0996	0.0825	0.1132
N	N = 101016	N = 101016	N = 44264	N = 101016	N = 101016
Panel B: The dependent variable is a dummy for a negative I/B/E/S earnings surprise					
	(1)	(2)	(3)	(4)	(5)
Constant	0.2752 (0.0025)***	0.4914 (0.0086)***	0.4837 (0.0121)***	0.5153 (0.0100)***	0.4930 (0.0095)***
Friday	0.1264 (0.0081)***	0.1052 (0.0067)***	0.0879 (0.0071)***	0.0719 (0.0064)***	0.1033 (0.0078)***
Thursday					0.0059 (0.0053)
Wednesday					-0.0031 (0.0053)
Tuesday					-0.0104 (0.0052)**
Controls		X	X	X	X
Companies w/ Friday and Non-Friday Events			X		
Company Fixed Effects				X	
Clustering by Day	X	X	X		X
R²	0.0043	0.0373	0.0343	0.0157	0.0375
N	N = 101016	N = 101016	N = 44264	N = 101016	N = 101016

Notes: From 1995 to 2003 publicly traded stocks in CRSP are matched to earnings announcements recorded in Compustat and I/B/E/S. In event time, day 0 is the day of the earnings announcement. Measures of actual and forecasted earnings per share are extracted from I/B/E/S. The earnings surprise for a particular quarterly announcement is the difference between actual earnings per share for the quarter and the median analyst forecast included in the I/B/E/S detail file during the 30 days before the quarterly earnings announcement scaled by the stock price 5 trading days before the announcement. The abnormal return for each stock is the raw return adjusted using the market model. If a period contains more than one day, the abnormal return is the sum of the abnormal return for each constituent day (this measure is not a buy-and-hold return). Robust standard errors clustered by day of announcement are in parentheses unless otherwise indicated. The set of additional control variables includes the market capitalization decile dummies, year dummies, and month dummies. Announcements that appear to be made on Saturday or Sunday are excluded from this analysis.

* significant at 10%; ** significant at 5%; *** significant at 1%

Table 5 (Continued). Firm Timing of Earnings Announcements

Panel C: The dependent variable is the abnormal stock return from 0 to +1					
	(1)	(2)	(3)	(4)	(5)
Constant	0.0005 (0.0005)	0.0020 (0.0017)	0.0055 (0.0022)**	0.0313 (0.0020)***	0.0036 (0.0024)
Friday	-0.0053 (0.0014)***	-0.0051 (0.0014)***	-0.0059 (0.0014)***	-0.0056 (0.0013)***	-0.0041 (0.0018)**
Thursday					0.0026 (0.0015)*
Wednesday					0.0025 (0.0015)
Tuesday					0.0016 (0.0015)
Controls		X	X	X	X
Companies w/ Friday and Non-Friday Events			X		
Company Fixed Effects				X	
Clustering by Day	X	X	X		X
R²	0.0002	0.0026	0.0035	0.0075	0.0028
N	N = 101016	N = 101016	N = 44264	N = 101016	N = 101016

Notes: From 1995 to 2003 publicly traded stocks in CRSP are matched to earnings announcements recorded in Compustat and I/B/E/S. In event time, day 0 is the day of the earnings announcement. Measures of actual and forecasted earnings per share are extracted from I/B/E/S. The earnings surprise for a particular quarterly announcement is the difference between actual earnings per share for the quarter and the median analyst forecast included in the I/B/E/S detail file during the 30 days before the quarterly earnings announcement scaled by the stock price 5 trading days before the announcement. The abnormal return for each stock is the raw return adjusted using the market model. If a period contains more than one day, the abnormal return is the sum of the abnormal return for each constituent day (this measure is not a buy-and-hold return). Robust standard errors clustered by day of announcement are in parentheses unless otherwise indicated. The set of additional control variables includes the market capitalization decile dummies, year dummies, and month dummies. Announcements that appear to be made on Saturday or Sunday are excluded from this analysis.

* significant at 10%; ** significant at 5%; *** significant at 1%

Table 6. Presidential Timing of Political Announcements

Dependent variable:	Indicator variable for Friday or Weekend Signing				Indicator variable for Friday Signing	
	(1)	(2)	(3)	(4)	(5)	(6)
Constant	0.3026 (0.0516)***	0.4667 (0.0961)***	0.4686 (0.0965)***	0.4677 (0.0966)***	0.2247 (0.0499)***	0.3293 (0.0952)***
Executive Order	-0.0100 (0.0519)	-0.0609 (0.0547)	-0.0643 (0.0560)	-0.0651 (0.0563)	-0.0060 (0.0500)	-0.0394 (0.0540)
Good News	-0.0760 (0.0251)***	-0.0744 (0.0250)***			-0.0593 (0.0237)**	-0.0526 (0.0240)**
Good News*Exec Order			-0.0651 (0.0302)**			
Good News*Federal Law			-0.0896 (0.0439)**			
Commemorative*Exec Order				-0.0916 (0.0480)*		
Expand Parks*Exec Order				-0.1502 (0.0874)*		
New Department*Exec Order				-0.0472 (0.0372)		
Commemorative*Federal Law				-0.1526 (0.0685)**		
Same Party*Federal Law				-0.0260 -0.0542		
Controls		X	X	X		X
Clustering by Day	X	X	X	X	X	X
R²	0.0022	0.0337	0.0337	0.0350	0.0016	0.0330
N	N = 4392	N = 4392	N = 4392	N = 4392	N = 3983	N = 3983

Notes: In columns 1 through 4 the dependent variable is equal to 1 if the political announcement occurs on Friday, Saturday or Sunday and 0 otherwise. In columns 5 and 6 the dependent variable is equal to 1 if the political announcement occurs on Friday and 0 otherwise (announcements made on Saturday and Sunday are excluded from the regression). Heteroskedasticity consistent standard errors clustered by day of signing and are in parentheses unless otherwise indicated. The set of additional control variables includes year and topic indicator variables.

* significant at 10%; ** significant at 5%; *** significant at 1%

Appendix Table 1. Accuracy of the Imputed Date for Earnings Announcements

Trading Days After Imputed Date and Actual Announcement	-2	-1	0	1	2	Other	Total
Panel A: Years 1984 to 1988							
Number of Imputed Friday Announcements	0 0.0%	38 33.0%	57 49.6%	17 14.8%	0 0.0%	3 2.6%	115 100.0%
Number of Imputed Non-Friday Announcements	1 0.2%	75 17.6%	280 65.6%	53 12.4%	8 1.9%	10 2.3%	427 100.0%
Panel B: Years 1989 to 1994							
Number of Imputed Friday Announcements	0 0.0%	15 3.9%	228 58.8%	139 35.8%	6 1.5%	0 0.0%	388 100.0%
Number of Imputed Non-Friday Announcements	2 0.5%	21 4.7%	386 87.1%	27 6.1%	2 0.5%	5 1.1%	443 100.0%
Panel C: Years 1995 to 2003							
Number of Imputed Friday Announcements	0 0.0%	16 2.4%	631 95.8%	11 1.7%	0 0.0%	1 0.2%	659 100.0%
Number of Imputed Non-Friday Announcements	1 0.2%	13 2.3%	551 97.0%	2 0.4%	0 0.0%	1 0.2%	568 100.0%

Notes: Newswire searches using Lexis-Nexis provide the actual date for the earnings announcement. The imputed date for the earnings announcement is generated from the recorded announcement dates in Compustat and I/B/E/S using a simple algorithm. The algorithm is described in the text and is designed to maximize the number of announcements that have matching imputed and actual dates in the small sample of observations randomly selected for a newswire search.