Information Flow, Predictability, and Disagreement

A Dissertation

Presented to the Faculty of the Graduate School

of

Yale University

in Candidacy for the Degree of

Doctor of Philosophy

by

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December 2009

Acknowledgments

I am indebted to Jake Thomas, my dissertation chair, for his generous guidance and support. The advice from my dissertation committee: Merle Ederhof, Brian Mittendorf, and Frank Zhang, has been invaluable. I also appreciate helpful comments from Rick Antle, Darwin Choi, Dasol Kim, Shyam Sunder, and seminar participants at the American Accounting Association Annual Meeting 2009, American Accounting Association FARS Midyear Meeting 2009, London Business School (8th Annual Transatlantic Doctoral Conference), and Yale University. All remaining errors are mine.

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Abstract

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2009

This dissertation (a) hypothesizes that information flow plays an important role in the inter-temporal variation in stock return, and (b) describes a surprising absence of scale for forecast error and forecast dispersion distributions.

In "Information Flow and Stock Returns", I propose an information flow explanation for the "Monday effect," defined as higher stock returns on Friday than on Monday. I hypothesize that short sellers profit when negative information supporting their bearish outlook is released to the public. Such public information is more likely to arrive on days with higher information flow (e.g., when the stock market is open). The cost of short selling, however, is a function of the loan rate which is invariant to whether markets are closed or open. This creates an incentive for short sellers to close their short positions on Fridays, relative to other days. Closing a short position requires the short seller to place a buy order. As a result, the buying pressure on Friday raises share prices slightly.

Turning to my second paper, "Surprising absence of scale for forecast error and forecast dispersion distributions" (with Jake Thomas), we show that while levels of actual and consensus forecast earnings per share (EPS) vary with scale, magnitudes of the

difference (or forecast errors) do not vary with scale. That is, forecast errors within a certain range (e.g., ±5 cents per share) are equally likely for both high-price and low-price shares.

We also find a similar lack of variation with scale for forecast dispersion, representing magnitudes of the difference between individual forecasts and the consensus (mean) for that firm-quarter. The prior literature has assumed that magnitudes of forecast errors (representing predictability) and forecast dispersion (representing disagreement across analysts) vary naturally with scale and has deflated both variables accordingly. We show that such scaling is likely to cause biased estimates, and recommend that scaling not be used unless called for by theory, and a scale variable be included as an additional regressor. Our exploratory analyses suggest that both variables vary with scale but other effects that are correlated with scale reverse that variation.

Information Flow and Stock Returns

1. Introduction

The "Monday effect," defined as higher stock returns on Friday than on Monday, was widely known by the early 1970s (Cross, 1973).[1] Despite the flurry of research that follows, Thaler (1987, p.174) reviews the literature and finds that "most of the reasonable, or even not so reasonable, explanations have been tested and rejected." Current research interest appears to have subsided. Likely factors include allegations that the Monday effect arises either from data-snooping or infrequent events (Rubinstein, 2001; Sullivan et al., 2001; Kamstra et al., 2000).

This paper begins with a preview of two selected findings, and the motivation to unravel this puzzle. First, I find that the data-snooping claim is not supported by data. In an *out-of-sample* test, I find that the mean return on Friday (measured from Thursday close to Friday close) is higher than that on Monday (measured from Friday close to Monday close) in 36 out of 37 years. Second, I find that infrequent events are unlikely to account for a significant portion of the Monday effect, since the median return on Friday is also higher than that on Monday in 36 out of 37 years.[2]

Researchers who use daily stock returns should be particularly concerned about the Monday effect, since many implicitly assume (incorrectly) in their econometric analysis

[1] The "Monday effect" is interchangeably labeled as the "Weekend effect" in the literature.
[2] This mean (median) difference of 0.32% (0.28%) between Friday and Monday is economically large. Note that the mean (median) daily return across all days of the week is only 0.08% (0.13%).

that the daily stock returns are identically distributed on different days of the week (Gibbons and Hess, 1981). In addition, inferences of event studies are difficult whenever the timing of the event is systematically related to the day of the week. For example, an event study of the stock market reaction to news releases will overstate the impact of bad news if managers tend to release bad news after the end of Friday trading hours.[3]

As a motivation to accounting researchers, the presence of positive abnormal returns around the release of accounting earnings is well documented.[4] This study, which examines why stock returns are abnormally low for periods of low information flow (weekends), could shed light on the high stock returns for periods of high information flow (earnings announcements).

Finally, the Monday effect is related to the broader issue of market efficiency. French (1980, p. 68) states that the Monday effect "appear to be evidence of market inefficiency," since the mean return on Monday should be either the same as Friday (if expected returns are zero on non-trading days) or three times that of Friday (if expected returns on non-trading days and trading days are similar).

In this paper, I hypothesize that the Monday effect is partly driven by short sellers. Prior literature documents that institutional short sellers forgo a portion of the interest earned on short selling proceeds, while individual short sellers typically forgo the entire

[3] Subtracting the market return from the firm return does not solve the problem as long as the cause of the Monday effect is unknown. In this example, if the low market return over the weekend is due to firms releasing bad news, then subtracting the market return will understate the effect in an event study.
[4] Examples include Ball and Kothari (1991), Beaver (1968), and Cohen, Dey, Lys, and Sunder (2007).

amount.[5] This implicit cost of short selling is the same each calendar day, whether markets are closed or open. On the other hand, short sellers derive greater benefit when markets are open, since public information that validates their belief is more likely to arrive when the market is open (which corresponds to days with higher information flow). Thus, short sellers are more likely to close their short positions on Fridays, relative to other days. As a result, there is excess buying pressure on Fridays which raises Fridays' closing prices slightly. Mechanically, this abnormally high closing price on Friday results in slightly higher stock returns on Friday, and a lower stock returns on Monday.[6]

To be sure, I do not mean that short sellers close a position on Friday, and reopen that same position on the following Monday, since the transaction cost incurred (e.g., bid-ask spread) is likely to exceed the savings on short selling cost. What I mean is that when short sellers finally decide to close their position, they are more likely to do so on a Friday, relative to other days. I also do not make any prediction on the day short sellers open their short position, though it is reasonable to assume that they will do so immediately upon receipt of any private negative information.

My explanation of the Monday effect is related to two prior studies. While I argue that it is the decreased flow of news (from Friday close to Monday close) that drives the Monday effect, Damodaran (1989) argues that it is bad news that causes the Monday effect (i.e., the market is systematically surprised by poor earnings announcements). As

[5] See, for example, Boehmer et al. (2008, p. 523), Cohen et al. (2007, p. 2066), Fortune (2000, p. 31), and Jones and Lamont (2002, p. 212).

[6] Throughout this paper, the return on Friday is measured from Thursday close to Friday close, while the return on Monday is measured from Friday close to Monday close.

an approximate paraphrase, Damodaran (1989) argues that the mean return on Monday is low because the first moment of earnings announced after Friday close is low, while I argue that the mean return on Monday is low because the second moment of return on Monday is low.

My study also builds on the findings of Chen and Singal (2003), who explain that short sellers close their positions on Fridays and "reestablish new short positions on Mondays" to avoid volatility over the weekend. Their hypothesis, however, raises several troubling issues. First, aside from the fact that closing and reestablishing new short positions is costly (given the bid-ask spread), there is no evidence that short selling is more prevalent on Monday (Blau et al., 2007). Second, even if it were true that market participants seek to avoid volatility over the weekend, it is unclear why the effect from the unwinding of short positions should be greater than that from the unwinding of long positions (especially since there are certainly more market participants with long positions).[7] Finally, short sellers generally perceive themselves as sophisticated investors with private negative information. Why then should they be concerned about volatility over weekend, since firm-specific news/volatility should favor their bearish outlook, while market-wide volatility can be easily hedged away?

Even though my explanation seems to be in direct contradiction with the explanation in Chen and Singal (2003) (since I hypothesize that short sellers close their position because there is too little volatility/news over the weekend), none of the evidence in Chen

[7] This is true by construction. D'Avolio (2002, p. 302) explains that "for the loan market to clear, not all investors can lend".

and Singal (2003) contradicts my explanation. In fact, as I explain in Section 3, their evidence helps support my explanation.

In subsequent sections, I find support for my explanation from seven predictions. In particular, I disentangle my explanation from Chen and Singal (2003), and show that the Monday effect is higher when there is relatively lower information flow over Monday, or when the cost of short selling is higher. The inference from information flow will be mutually exclusive, in the sense that the result either supports Chen and Singal (2003) or my hypothesis. The prediction relating to the cost of short selling is unique to my hypothesis, and is not predicted by *any* prior studies. I also make cross-sectional predictions related to the level of short interest and the availability of a traded option market (since put option serves as an alternative to short selling). To the extent that there is lower information flow during holidays, I make intertemporal predictions on pre/post returns around holiday and long weekends (i.e., weekends with adjacent holidays). In addition, I reject recent claims that the Monday effect arises from either data-snooping or infrequent events. In an out-of-sample test, both the mean and median market returns on Friday is higher than that on Monday in 36 out of the most recent 37 years. Lastly, I also find that returns are generally increasing from Monday through Friday.[8] This suggests that short sellers who are less certain of their private information close their positions before Friday to avoid the mad rush ("short squeeze") in covering their positions.

This paper contributes to the literature in three ways. First, this paper offers an explanation for the Monday effect, and provides evidence that both information flow and

[8] This is not a typo. I am referring to returns, and not price level.

the cost of short selling are systematically related to stock returns. Second, it shows that some recent explanations for the Monday effect, including the widely held belief that the Monday effect is due to data-snooping by researchers, are not supported by data. Hopefully, this paper will stimulate renewed interest in the Monday effect. Finally, this paper contributes to the literature by providing a unifying framework for numerous disparate findings in the literature.

The rest of this paper is organized as follows. The next section reviews the literature. Section 3 develops my hypothesis. Section 4 describes the data source and defines the variables. Section 5 and 6 explain the results of my time-series and cross-sectional analyses. Section 7 concludes.

2. Related literature

This paper builds on a rich literature that documents and offers various explanations for the Monday effect. The Monday effect does not exist only in the stock exchanges of United States. It also exists in the over-the-counter market (Keim and Stambaugh, 1984), and in the equity market of several countries (Jaffe and Westerfield, 1985a, 1985b; Kim, 1988; Aggarwal and Rivoli, 1989; Jaffe et al., 1989; and Chang et al., 1993).

A plethora of explanations for the Monday effect has been investigated over the past three decades. These include: strategic announcement of poor earnings and dividend during weekends (Damodaran, 1989), measurement error and specialist-related explanations (Keim and Stambaugh, 1984), bid-ask bounce (Keim, 1989), delay in trade settlement (Gibbons and Hess, 1981; Lakonishok and Levi, 1982; Dyl and Martin, 1985;

and Lakonishok and Levi, 1985), non-synchronous trading (Abraham and Ikenberry, 1994), and the expiration day of stock options (Wang et al., 1997).

However, by and large, there is a dearth of well-accepted explanations.[9] For example, Damodaran (1989) concludes that he can explain only 3.4 percent of the Monday effect. Keim and Stambaugh (1984) reject both the measurement error and specialist-related explanations. Wang et al. (1997) find that the expiration day of stock option cannot explain the Monday effect. Abraham and Ikenberry (1994, p. 264) provide evidence that non-synchronous trading problem is not an issue. Interestingly, in a literature review conducted more than two decades ago, Thaler (1987, p.174) commented "Most of the reasonable, or even not so reasonable, explanations have been tested and rejected."

Three recent lines of explanation have since been offered. Kamstra et al. (2000, p. 1009), the first such explanation, hypothesize "a psychological mechanism by which daylight saving time changes impact on the functioning of financial markets on two particular weekends every year." They then argue that the Monday effect arises from the resulting sleep disruption during two weekends each year.

The claim of data-snooping is the second recent explanation.[10] Sullivan et al. (2001, p. 249–261) point out the lack of out-of-sample validation in Cross (1973). Given that it

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[9] Chen and Singal (2003, p. 686) also agree that "the weekend effect remains largely an unresolved issue".
[10] While previous studies (e.g., Lakonishok and Smidt (1988, Table 2)) have argued that the Monday effect is not due to data-snooping, their evidence is clearly not sufficiently convincing (given Rubinstein (2001) and Sullivan et al. (2001). A weakness in their study (where they showed that the Monday effect also exists in other sample sub-periods) is that their results could be driven by a few extreme outliers (e.g., the "Black Monday" of October 1987).

was "based on market participants' claim that prices tend to fall on Mondays… the same data were used to formulate and test the hypothesis." Furthermore, they argue that since "the hypothesis of a Monday effect was not based on any theory," the "full combination of possibilities" available to a researcher intent on data-snooping is large. They suggested that once properly "evaluated in the context of the full universe from which such rules were drawn, calendar effects no longer remain significant."

In the third recent explanation, Chen and Singal (2003, p. 685–688) hypothesize that short sellers fear the presence of volatility over the weekend, since "even little volatility during nontrading hours can be devastating as the short sellers are unable to trade."[11] Thus, they suggested that short sellers "close their speculative positions on Fridays and reestablish new short positions on Mondays causing stock prices to rise on Fridays and fall on Mondays."

In the next section, I offer a new explanation for the Monday effect. I will also develop tests to distinguish my explanation from these three recently offered explanations.

3. Hypothesis development

I conjecture that short sellers prefer to hold their short position over periods with higher information flow (e.g., when the market is open). This is because, by virtue of taking a short position, short sellers must generally believe that they possess private

[11] Fields (1934) was the first to suggest that the Monday effect is related to the presence of short sellers, though he provides little evidence to substantiate his claim. Moreover, his study was relatively obscure till recent years. Chen and Singal (2003) is the first study that seriously investigates this hypothesis.

information about a firm.[12] Short sellers rely on, and benefit from, higher (public) information flow to unlock the value of their private information.

The cost of short selling is, however, invariant to whether markets are closed or open. In short sales, the entire proceeds from short selling are generally kept by the broker as *cash collateral* (D'Avolio, 2002, p.275). At a minimum, short sellers forgo a fraction of the interest earned on the cash collateral. Thus, this implicit cost of short selling is the same each calendar day.

The key insight is that while it is three times more costly to hold a short position from Friday close to Monday close (compared to any other days), the benefit (in terms of information flow from Friday close to Monday close) is typically less than three times that on other days (French and Roll, 1986). Hence, a short seller is more likely to close his short position (and drive up prices slightly) on Friday.

However, this buying pressure on Friday may not necessarily materialize into higher share price if there are sufficient counteracting forces. First, brokers could lower the cost of short selling over the weekend to induce short sellers not to close their positions on Friday (say, by offering a higher rebate rate for weekends). This will induce more short sellers to hold on to their short positions. Second, if sufficiently large numbers of investors defer their purchases from Friday to Monday (or hasten their divestment from Monday to Friday), the decrease in buying pressure on Friday could offset the buying

[12] Clearly, not all short sellers possess private information. For example, some short to "lock in" profits from long positions (since higher taxes can result from liquidating long positions too early).

pressure from short sellers. However, given the industry norm where rebate rate is unchanged during weekends, and the widespread belief that the Monday effect arises from data-snooping, both scenarios are remote and unlikely to impede the buying pressure from translating into higher share prices.

Below, I make seven predictions to test the validity of my explanation. The common theme underlying all these predictions stems from the above cost-benefit analysis. By exploiting unique features of my explanation, I also generate predictions to distinguish my explanation from the other three recently offered explanations.

First, I like to establish that the Monday effect is systematic, and does not arise from either data-snooping (e.g., Sullivan et al., 2001), nor some infrequent events (e.g., Kamstra et al., 2000). Thus, I predict that:

Hypothesis H1: The Monday effect persists in an out-of-sample test.

Hypothesis H2: The median return on Friday is significantly higher than the median return on Monday in an out-of-sample test.

From my cost-benefit analysis, I make the following *unique* predictions, in the sense that they are not predicted by *any* prior studies.

Hypothesis H3: The Monday effect is higher when cost of short selling is higher.[13]

Hypothesis H4: The Monday effect is higher when information flow over Mondays, relative to information flow over Fridays, is lower.

If short sellers who are less certain about their private negative information close their positions before Friday to avoid the mad rush ("short squeeze") in buying to cover their positions on Friday. Then, by backward induction, I hypothesize that:

Hypothesis H5: Returns across days of the week exhibits an increasing trend.

Finally, I make predictions on availability of the options market on the Monday effect, and the stock return behavior around holiday and long weekend. To the extent that the options market serves as an alternative to short selling, and that most standardized option contracts are settled without trading the underlying security, I predict that:

Hypothesis H6: (a) The Monday effect is lower after put options are introduced in 1977. (b) Cross-sectionally, I also predict that the Monday effect is lower for firms associated with higher use of put options.

Hypothesis H7: (a) To the extent that there is also little information released over holiday, the stock return behavior around holiday will be similar to that around the

[13] When cost of short selling varies due to shift in the supply of stocks available in the shorting market, an implicit assumption of H3 is that the demand curve for shorting is sufficiently inelastic. Such assumption is standard and "common in the literature" (Cohen et al., 2007, p. 2062).

weekend (i.e., pre-holiday returns are higher than post-holiday returns). (b) Long weekends (i.e., weekends with adjacent holidays on Fridays or Mondays) will exhibit more pronounced "Monday effect."[14]

It turns out that evidence for hypotheses H6 and H7 can be inferred from existing literature. For hypothesis H6, Chen and Singal (2003, p. 686) show that "the weekend effect weakens significantly after 1977," and that "stocks with higher put volume ratios ... have a significantly smaller weekend effect." For hypothesis H7, Ariel (1990, p. 1625) finds high stock returns before holidays, and "unremarkable returns on post-holiday trading days." Since some holidays always fall on Mondays, Ariel (1990) is concerned that the high pre-holiday returns may be confounded with high Friday returns. To ensure that this holiday effect is incremental to that from the Monday effect, Ariel (1990, p. 1623 and Table IV(C)) added dummy variables for each day of the week as control variables and found that this high pre-holiday return behavior continued to persist. This means that consistent with my prediction, the Monday effect is higher for long weekends (i.e., those weekends with adjacent holidays).

While the predictions in the last two hypotheses have been documented in the existing literature, no prior literature has related it to my explanation. One contribution of this paper is that my explanation for the Monday effect provides a unifying framework for these disparate findings. The rest of this paper will focus on testing the remaining five hypotheses.

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[14] To be sure, this is not the Monday effect as defined earlier. Here, I mean the difference between Thursday return and the subsequent Monday return (for Friday holidays), or the difference between Friday and the subsequent Tuesday return (for Monday holidays).

4. Data and variables definition

This section explains how I measure the cost of short selling, Monday effect, and information flow.

In the time-series analysis, I focus on the cost of short selling as incurred by individual short sellers, since the cost incurred by institutional investors is not generally available.[15] This approach is certainly valid if the cost of short selling for individual investors is positively related to that for institutional investors (since individual cost of short selling can then be viewed as a proxy for institutional cost of short selling). To ensure that my results are robust, I will also exploit a period associated with high short selling cost, as identified in Jones and Lamont (2002).

In short sales, the entire proceeds from short selling are generally kept by the broker as *cash collateral* (D'Avolio, 2002, p. 275). The implicit cost of short selling for individual short sellers is the risk-free rate, since they typically forgo all the interest earned on their cash collateral.[16] Thus, in subsequent analysis, I measure the cost of short selling using the monthly risk-free rate (one-month T-Bill return), as calculated by Ibbotson and Associates, Inc (data available since July 1926).[17]

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[15] Boehmer et al. (2008, p. 523) states that major lenders (such as brokerage firms) consider the cost of borrowing stocks to be "highly proprietary".

[16] Boehmer et al. (2008, p. 523) explain that "individuals face an opportunity cost on their short sales equal to the short-term riskless rate." Jones and Lamont (2002, p. 212) state that "individuals who short ... typically receive a rebate rate of zero, both in modern times and in the 1920s." See also Cohen et al. (2007, p. 2066) and Fortune (2000, p. 31).

[17] The daily risk-free rate is not available before the year 1963.

There are certainly other costs of short selling that are not captured by my above proxy. For example, Federal Reserve Regulation T imposes an additional 50% margin requirement (i.e., total collateral is 150% of the market value of shares shorted) when the lender is a U.S. broker-dealer. In addition, short sellers must either post additional collateral if the prices of their shorted shares increases, or close their position at a significant loss if they run out of capital (Liu and Longstaff, 2000). Short positions also run the risk of being involuntarily recalled (at a loss to short sellers if no alternative lender could be found), as might be the case if the stock lender decides to sell his shares when prices increase (Jones and Lamont, 2002).[18] Finally, if short sellers perceive themselves as more sophisticated market players, they may value the opportunity cost of their capital well above than the risk-free rate.

As a robustness test, I also conduct a cross-sectional analysis. I use firm size and return volatility as my proxy for the cost of short-selling, since D'Avolio (2002) observes that higher cost of short selling is associated with smaller firms and more volatile stocks.

I define Monday effect as the mean return on Fridays minus that on Mondays. I obtain daily stock and stock indices returns from the Center for Research in Security Prices (CRSP). The daily CRSP equal-weighted indices returns are based on all firms in the three major exchanges (NYSE, NASDAQ, and AMEX) and are inclusive of distributions. To avoid spurious results arising from potential differences in return

[18] D'Avolio (2002, p. 273) finds that "having been recalled, the mean (median) time before the short can be reestablished with the lender is 23 (9) trading days".

volatility, the standard log return (or continuously compounded return) is used throughout this paper to compute the mean Monday and Friday return (Campbell et al., 1997, p. 11).

I define *information flow* as the standard deviation of residuals from a market model regression. This measure is consistent with the existing literature. For example, Ferreira and Laux (2007, p. 952) explain that "idiosyncratic volatility is a good candidate as a summary measure of information flow." Similarly, Thomas (2002, p. 382) argues that such volatility measure "proxies for the amount of price-relevant information about a firm that arrives daily to the market."

To be more precise, in each firm-month, I regress the excess daily firm return on the daily Fama-French three factors. I then compute the information flow on each day of the week (i.e., standard deviation of residuals on each day of the week). Since I postulate that the Monday effect arises from the *decrease* in information flow on Monday (relative to Friday), I define *relative information flow* as the Monday information flow minus the Friday information flow.[19]

The *relative information flow* is a key variable of interest in my following cross-sectional analysis.[20] Certainly, there are factors unrelated to information flow (e.g., bid-ask spread) that could also affect the standard deviation of residuals. However, to the extent that such factors affect both the Monday information flow and Friday information

[19] Throughout this paper, all returns are measured from close-to-close (e.g., Monday return is measured from Friday close to Monday close).

[20] Strictly speaking, my explanation is based on the *expected* level of relative information flow. The use of ex-ante measure is however unnecessary, as the realized measure should be an unbiased, albeit noisy, estimate of the expected measure under a rational expectations framework.

flow by similar magnitude, then subtracting the Friday information flow from the Monday information flow should mitigate the effect of such factors.

5. Time-series analysis

I begin by investigating whether the Monday effect persists in an out-of-sample test (Hypothesis H1). I compute the mean return on Friday and Monday in each year. The difference between the mean return on Friday and Monday is the Monday effect. Table 1 (Panel A) shows that the mean return on Friday is higher than the mean return on Monday in 78 out of 82 years. Since Cross's (1973) original finding was based on all of the then available 18 years of data (from 1953 to 1970), my out-of-sample test uses only data starting after 1970. Both Table 1 (Panel A) and Figure 1 (Panel A) show that the mean return on Friday is higher than the mean return on Monday in 36 out of the most recent 37 years. Using a nonparametric test, under the null hypothesis that the return distribution on Monday is the same as that on Friday, the probability that this finding occurs by mere chance is less than one in a million.[21] The use of nonparametric test mitigates the effect of outliers.

Next, I examine whether the median return on Friday is higher than the median return on Monday (Hypothesis H2). If the Monday effect is driven mainly by infrequent outliers (such as the two weekends affected by daylight savings adjustment in Kamstra et al. (2000)), then there should be little difference in the median Friday and Monday return. However, Table 1 (Panel B) shows that the median return on Friday is also higher than

[21] This requires the usual assumption of serial independence (p-value < 0.000001 using a binomial test with parameters $n = 37$, success $= 36$, probability $= 0.5$). This p-value is the probability of tossing a fair coin 37 times, and observing 36 or more heads or tails.

the median return on Monday in 78 out of 82 years. In an out-of-sample test (Figure 1, Panel B), the median return on Friday is higher than the median return on Monday in 36 out of 37 years. This evidence suggests that it is unlikely that the Monday effect is driven mainly by infrequent outliers (Kamstra et al., 2000). Table 1 Panels C and D show that our inference remains largely unchanged whether we examine the equal-weighted or value-weighted indices return.

As a robustness check, and to rule out the possibility that the Monday effect arises from features that are unique to certain exchanges (e.g., market maker mechanism), I repeat the analysis in Table 1 separately for each of the three major exchanges (NYSE, NASDAQ, and AMEX). Table 2 shows that while the Monday effect is less pronounced for firms in the NYSE exchange, it is nevertheless strong and significant in all three exchanges. Note that firms listed in the NYSE exchange are generally larger, and should be associated with lower cost of short selling.

Table 3 examines whether higher cost of short selling is associated with higher Monday effect (Hypothesis H3). As explained in Section 4, I measure the cost of short selling by the monthly risk-free rate. Panel A shows that the cost of short selling is positive and statistically significant.

As a robustness check, I run the regression separately in each decade (Panel B) and find that the coefficient estimates in all nine decades are positive. Using a nonparametric test, the probability that the coefficient estimates in all nine decades are positive is less than 0.01. Notice that Figure 2 shows that there is considerable variation in the risk-free rate over the years, and within each decade.

Table 3 (Panel C) runs yet another robustness test. In each decade, I separate the 120 months into two groups (based on the cost of short selling). In 8 of the 9 decades, the months with higher cost of short selling exhibit a higher Monday effect (p-value = 0.04).

To further support my hypothesis that the Monday effect increases with the cost of short selling (Hypothesis H3), I exploit the regime change in the cost of short selling, as identified in Jones and Lamont (2002, p. 220). Specifically, they find that "The regime shift in October 1930 was dramatic. Suddenly, *no* stock lent at a positive rate ... this unwillingness to lend ... could be justified by fears of legal persecution... the anti-shorting climate was hysterical in October 1930." Incidentally, in that same month, the financial weekly Barron's (10/20/1930, p.18) describe the high cost of short selling for U.S. Steel as "virtually unprecedented."

Given the dramatic increase in the cost of short selling, hypothesis H3 predicts that the Monday effect following the regime change to be higher. Consistent with my prediction, Table 1 finds the Monday effect in the year following the regime change (1931) to be higher than in the prior year. In fact, both the mean and median Monday effect in 1931 is the highest in all 82 years of my sample. In unreported tables, a closer month-by-month analysis reveals a qualitatively similar result.[22]

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[22] For example, I compare the two months after October 1930, with the two months before October 1930.

Hence, I conclude that Table 3 supports my hypothesis that the Monday effect increases with the cost of short selling. This result is especially interesting as the intertemporal variation of the Monday effect with the risk-free rate is not predicted by any prior research.

Lastly, I examine whether the returns across the days of the week exhibits an increasing trend (Hypothesis H5). To avoid outliers (e.g., Black Mondays) from driving the results, Figure 3 graphs both the mean and median returns over different days of the week, and demonstrates that the returns across days of the week are generally increasing. As a robustness test, Figure 4 repeats the analysis in Figure 3 separately for each decade. Aside from the visually compelling evidence, in unreported results, a regression of returns on the days of the week yields a positive and statistically significant coefficient (even when Monday and Friday returns are excluded from the regression analysis). Hence, I conclude that Figure 3 supports my hypothesis that the returns across the days of the week exhibit an increasing trend.

6. Cross-sectional analysis

This section examines whether, cross-sectionally, higher cost of short selling is associated with higher Monday effect (Hypothesis H3), and whether the Monday effect is higher when relative information flow is lower (Hypothesis H4).

As explained in Section 4, in the cross-sectional analysis, I measure the cost of short selling by firm size and return volatility. Table 4 is an investigation based on firm size. Panels A through J compute the Monday effect in each of the size deciles. These deciles are formed by a cross-sectional sort of all NYSE/AMEX/NASDAQ firms based on market capitalization at the end of the previous calendar year. In the decile associated with the highest cost of short selling (Panel A, smallest size decile), the overall mean Monday (Friday) return is –0.16% (0.22%), corresponding to a Monday effect of 0.38%. As we move across to the largest size decile, the overall Monday effect decreases rather monotonically to 0.18%.

Table 5 is an investigation based on return volatility. Panels A through J compute the Monday effect in each of the standard deviation deciles. These deciles are formed by a cross-sectional sort of all NYSE/AMEX firms based on standard deviation of return at the end of the previous calendar year. In the decile associated with the highest cost of short selling (Panel A, highest standard deviation), the overall mean Monday (Friday) return is –0.15% (0.45%), corresponding to a Monday effect of 0.60%. As we move across to the largest standard deviation decile, the overall Monday effect decreases monotonically to 0.11%.

Finally, I examine whether the Monday effect is higher when relative information flow is lower (Hypothesis H4). Here, I exploit differences in prediction to disentangle my hypothesis from that of Chen and Singal (2003).

If the hypothesis in Chen and Singal (2003) holds (i.e., short sellers close their position on Friday to avoid volatility over the weekend), then firms with higher relative information flow should be associated with higher Monday effect. This is because *relative information flow* is defined as Monday information flow minus the Friday information flow (see Section 4 for details), thus higher relative information flow means a greater flow of information between Friday close to Monday close (relative to the flow between Thursday close to Friday close). On the contrary, if my hypothesis is more descriptive (i.e., short sellers dislike the relative lack of volatility over the weekend), then firms with higher relative information flow should be associated with lower Monday effect.

Given that my explanation for the Monday effect is based on the contemporaneous change in information flow, I do not run predictive regression. As pointed out by Ang et al. (2008), contemporaneous regression, however, can cause spurious positive correlation between mean return and information flow due to skewness in stock returns. To address this issue, I use log returns for all returns in the market model regression. This is the same approach adopted by Ang et al. (2008, p. 28).

In Table 6, I compute the Monday effect and the relative information flow for each firm-month. In each year, I sort the firm-months into deciles based on its relative information flow, and tabulate the Monday effect in each decile. Consistent with hypothesis H4, the Monday effect decreases with higher relative information flow. This decrease is generally monotonic for the Monday effect, and is both economically and statistically significant. Thus, the Monday effect is not due to the fear of volatility over the weekend. Rather, it arises from the relative lack of volatility over the weekend.

Even though the main purpose of this analysis is to disentangle my hypothesis from that of Chen and Singal (2003), skeptics might argue that a larger relative information flow will naturally lead to a larger Monday effect, as long as my measure of information flow captures risk, and is thus priced.[23]

However, it is important to note that unlike a cost-based explanation, a risk-based story cannot explain why Mondays' returns are generally negative (as we observed in Table 1). Furthermore, a risk-based story would not predict the intertemporal relationship of the Monday effect with the cost of short selling.

7. Conclusion

In this paper, I hypothesize that both information flow and the cost of short selling have systematic impact on stock returns. I investigate my hypothesis in the context of the Monday effect. Since short selling is costly, short sellers must generally believe that they possess valuable private information. Short sellers rely on, and benefit from, public information to unlock the value of their private information. Hence, I conjecture that short sellers are more likely to close their short positions on Friday when relative information flow is lower, or when the cost of short selling is higher.

Despite the use of crude proxies, I find support for my explanation from seven predictions. In particular, I show that the Monday effect is higher when relative information flow is lower, or when the cost of short selling is higher. I also make

[23] While idiosyncratic volatility / risk might be priced when not all assets are traded or can be diversified (e.g., human capital and private business ownership), Ang et al. (2005) finds a *negative* cross-sectional relation between idiosyncratic volatility and stock returns.

predictions on how the Monday effect varies with the level of short interest and the availability of a traded options market. To the extent that there is lower information flow over holiday, I make predictions for pre/post returns around holidays and long weekends. In addition, I also reject recent claims that the Monday effect arises from either data-snooping or infrequent events. Using CRSP indices returns, I find that both the mean and median return on Friday is higher than that on Monday in 78 out of 82 years (full sample), or 36 out of 37 years (out-of-sample test). Finally, I also find that returns are generally increasing from Monday through Friday. This suggests that short sellers who are less certain of their private information close their positions before Friday to avoid the rush ("short squeeze") in covering their positions.

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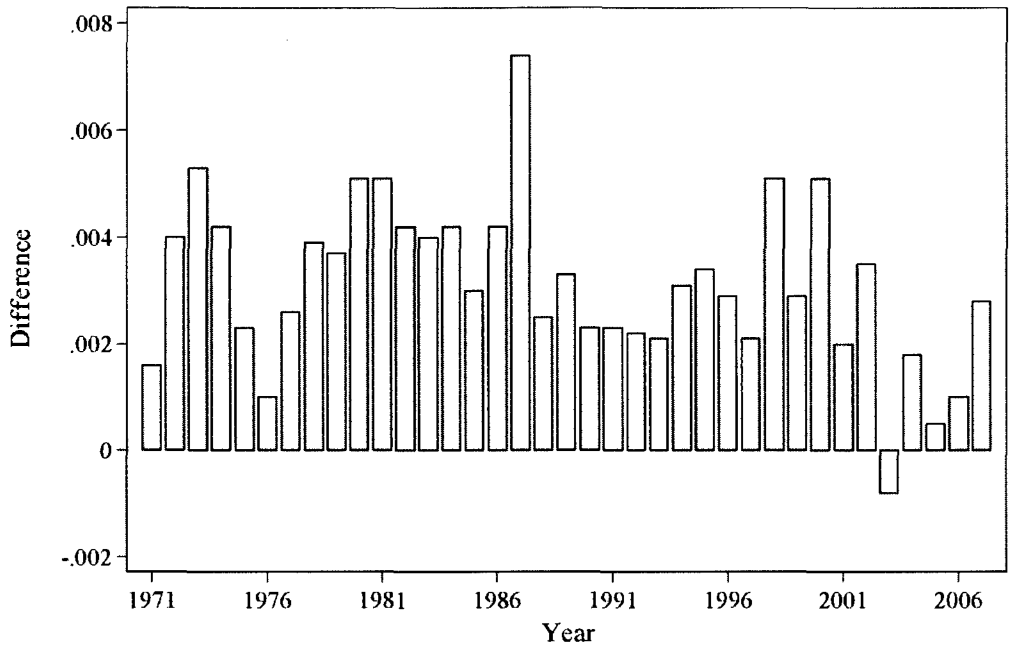
Panel A: Mean Friday return minus mean Monday return in each year



Panel B: Median Friday return minus median Monday return in each year

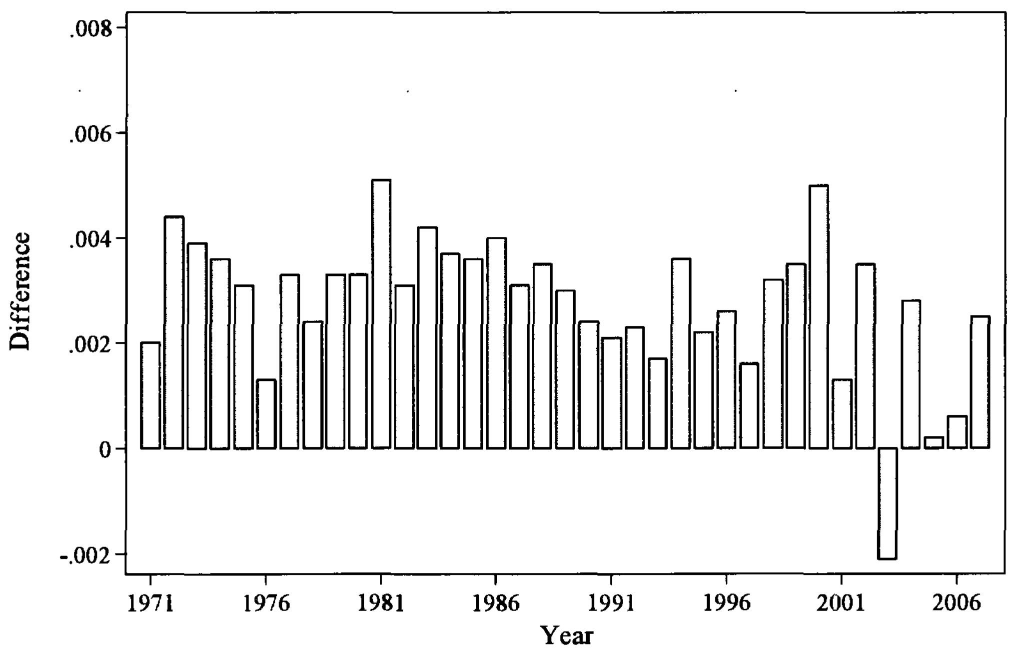


Figure 1: Difference between mean/median daily return on Friday and Monday in each year, computed using the daily equal-weighted CRSP indices returns. Here, I use data after the year 1970 for an out-of-sample analysis.

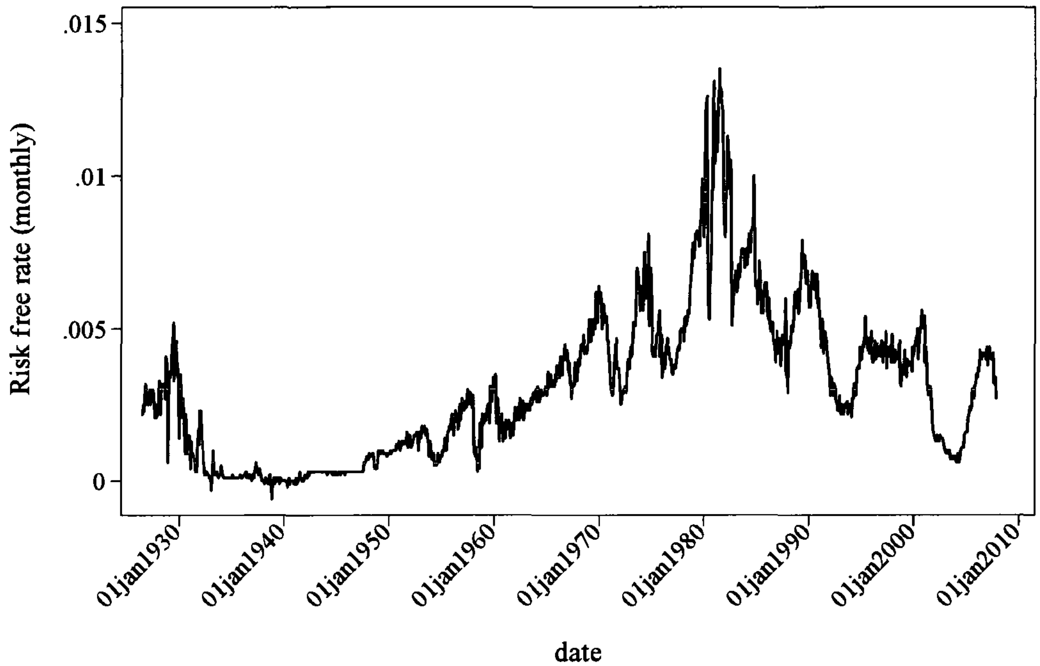
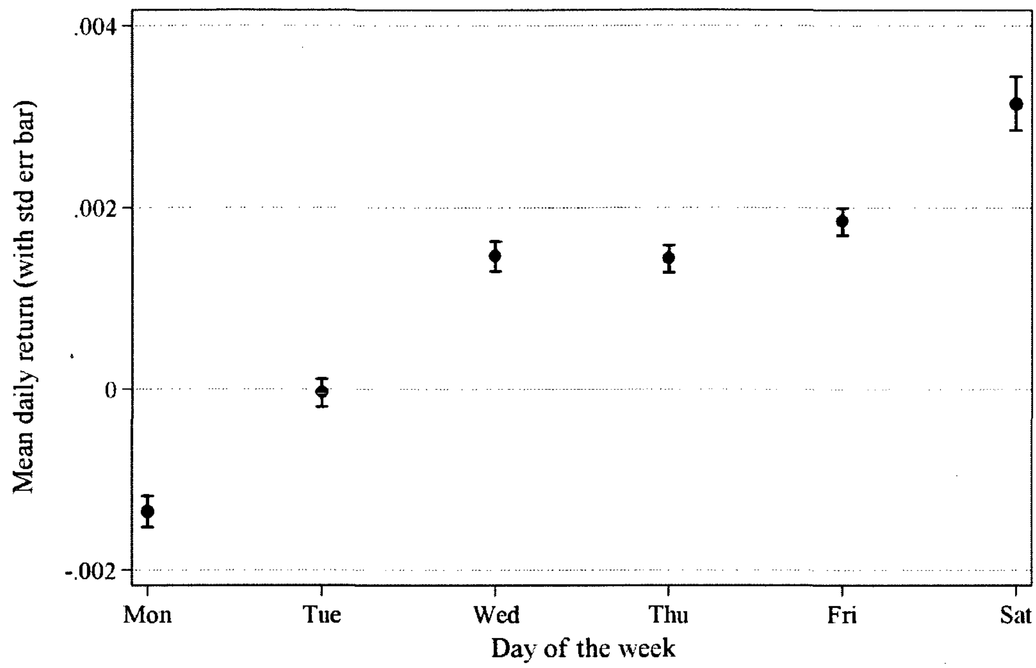


Figure 2: Monthly risk-free rate (one-month T-Bill return) from July 1926 to December 2007, as calculated by Ibbotson and Associates, Inc.

Panel A: Mean daily return in each day of the week



Panel B: Median daily return in each day of the week

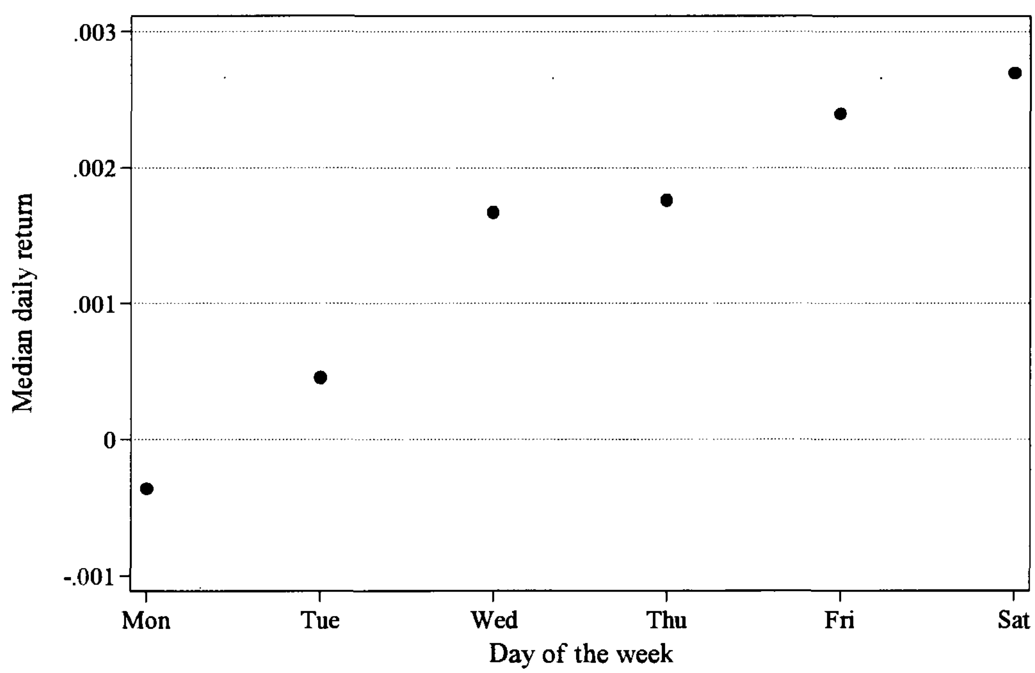
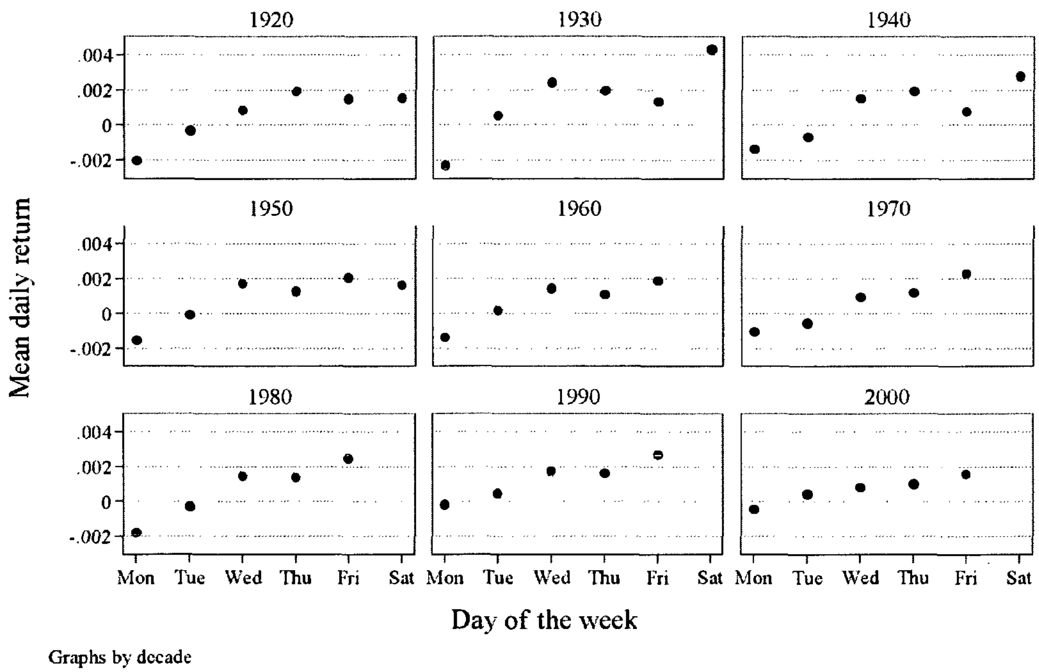


Figure 3: Mean and median daily return for each day of week, computed using the daily equal-weighted CRSP indices returns from year 1926 to 2007. Note that the stock market is no longer open on Saturday after the year 1952.

Panel A: Mean daily return in each day of the week



Panel B: Median daily return in each day of the week

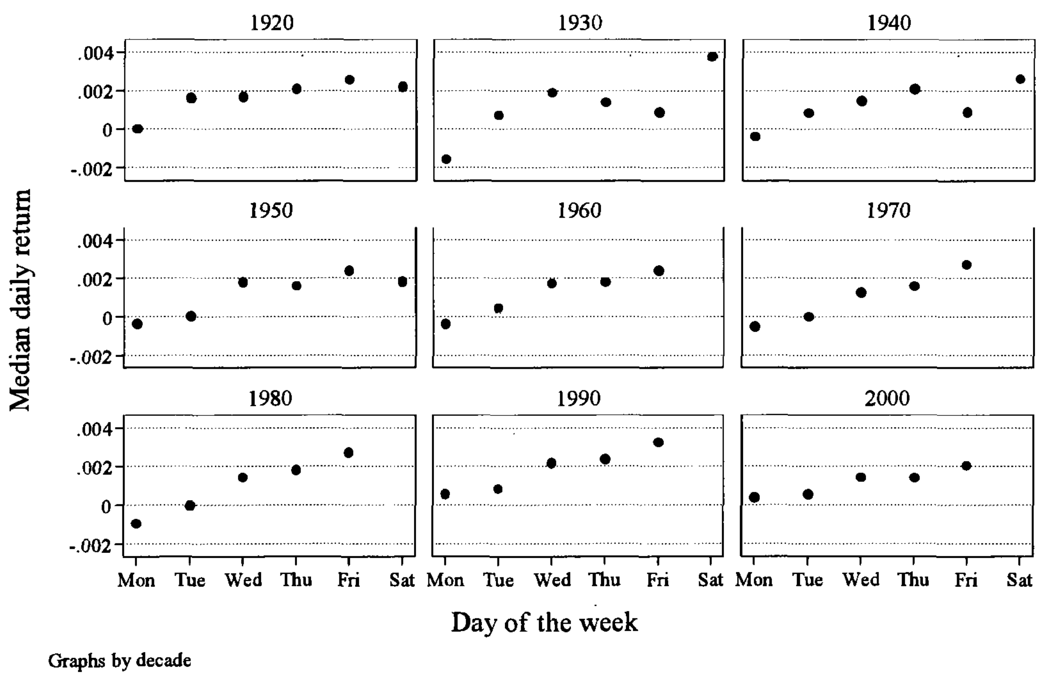


Figure 4: Mean and median daily return for each day of week, grouped by decade. This is a decade by decade analysis to confirm that the results reported in Figure 3 are robust.

Table 1: Monday effect in each year. In Panel A (Panel B), I compute the mean (median) return on Monday and Friday in each year, computed using the daily CRSP equal-weighted daily indices returns.

In Panel C (Panel D), I compute the mean (median) return on Monday and Friday in each year, computed using the daily CRSP value-weighted daily indices returns.

The two-sided p-value indicated under each panel tests the null hypothesis that the return distribution on Monday is the same as that on Friday. This binomial test is an out-of-sample analysis and uses only data after the year 1970.

Panel A: Mean Monday and Friday return (equal-weighted daily indices returns)

Year	Monday Return	Friday Return	Difference	Year	Monday Return	Friday Return	Difference
1926	- 0.20 %	0.08 %	0.28 %	1967	- 0.03 %	0.38 %	0.41 %
1927	0.03 %	0.13 %	0.10 %	1968	0.11 %	0.19 %	0.08 %
1928	0.00 %	0.19 %	0.19 %	1969	- 0.52 %	0.13 %	0.65 %
1929	- 0.64 %	0.21 %	0.85 %	1970	- 0.29 %	0.19 %	0.48 %
1930	- 0.50 %	- 0.07 %	0.43 %	1971	0.04 %	0.20 %	0.16 %
1931	- 0.65 %	0.42 %	1.07 %	1972	- 0.13 %	0.27 %	0.40 %
1932	- 0.20 %	0.52 %	0.72 %	1973	- 0.51 %	0.02 %	0.53 %
1933	0.65 %	0.13 %	- 0.52 %	1974	- 0.38 %	0.04 %	0.42 %
1934	- 0.41 %	0.23 %	0.64 %	1975	0.21 %	0.44 %	0.23 %
1935	0.23 %	0.42 %	0.19 %	1976	0.13 %	0.23 %	0.10 %
1936	- 0.21 %	0.10 %	0.31 %	1977	0.01 %	0.27 %	0.26 %
1937	- 0.88 %	- 0.27 %	0.61 %	1978	- 0.10 %	0.29 %	0.39 %
1938	0.02 %	- 0.12 %	- 0.14 %	1979	- 0.04 %	0.33 %	0.37 %
1939	- 0.34 %	- 0.08 %	0.26 %	1980	- 0.19 %	0.32 %	0.51 %
1940	- 0.29 %	- 0.14 %	0.15 %	1981	- 0.25 %	0.26 %	0.51 %
1941	- 0.05 %	- 0.07 %	- 0.02 %	1982	- 0.14 %	0.28 %	0.42 %
1942	0.06 %	0.22 %	0.16 %	1983	- 0.08 %	0.32 %	0.40 %
1943	- 0.12 %	0.05 %	0.17 %	1984	- 0.24 %	0.18 %	0.42 %
1944	0.01 %	0.25 %	0.24 %	1985	- 0.04 %	0.26 %	0.30 %
1945	0.12 %	0.17 %	0.05 %	1986	- 0.19 %	0.23 %	0.42 %
1946	- 0.33 %	0.29 %	0.62 %	1987	- 0.51 %	0.23 %	0.74 %
1947	- 0.32 %	- 0.09 %	0.23 %	1988	- 0.01 %	0.24 %	0.25 %
1948	- 0.31 %	0.06 %	0.37 %	1989	- 0.16 %	0.17 %	0.33 %
1949	- 0.18 %	- 0.03 %	0.15 %	1990	- 0.15 %	0.08 %	0.23 %
1950	- 0.26 %	0.29 %	0.55 %	1991	0.04 %	0.27 %	0.23 %
1951	- 0.16 %	0.13 %	0.29 %	1992	0.06 %	0.28 %	0.22 %
1952	- 0.08 %	0.21 %	0.29 %	1993	0.07 %	0.28 %	0.21 %
1953	- 0.28 %	0.05 %	0.33 %	1994	- 0.10 %	0.21 %	0.31 %
1954	0.06 %	0.30 %	0.24 %	1995	0.01 %	0.35 %	0.34 %
1955	- 0.24 %	0.26 %	0.50 %	1996	- 0.01 %	0.28 %	0.29 %
1956	- 0.11 %	0.21 %	0.32 %	1997	0.00 %	0.21 %	0.21 %
1957	- 0.47 %	0.01 %	0.48 %	1998	- 0.20 %	0.31 %	0.51 %
1958	0.08 %	0.32 %	0.24 %	1999	0.10 %	0.39 %	0.29 %
1959	- 0.13 %	0.26 %	0.39 %	2000	- 0.21 %	0.30 %	0.51 %
1960	- 0.30 %	0.19 %	0.49 %	2001	- 0.05 %	0.15 %	0.20 %

1961	- 0.03 %	0.17 %	0.20 %	2002	- 0.18 %	0.17 %	0.35 %
1962	- 0.35 %	0.00 %	0.35 %	2003	0.24 %	0.16 %	- 0.08 %
1963	- 0.09 %	0.16 %	0.25 %	2004	- 0.02 %	0.16 %	0.18 %
1964	0.02 %	0.22 %	0.20 %	2005	0.09 %	0.14 %	0.05 %
1965	- 0.04 %	0.31 %	0.35 %	2006	- 0.08 %	0.02 %	0.10 %
1966	- 0.21 %	0.10 %	0.31 %	2007	- 0.16 %	0.12 %	0.28 %
				All	**- 0.14 %**	**0.18 %**	**0.32 %**

p-value < 0.000001 using a binomial test with parameters n = 37, success = 36, probability = 0.5

This p-value is the probability of tossing a fair coin 37 times, and observing 36 or more heads or tails.

Panel B: Median Monday and Friday return (equal-weighted daily indices returns)

Year	Monday Return	Friday Return	Difference	Year	Monday Return	Friday Return	Difference
1926	- 0.03 %	0.20 %	0.23 %	1967	0.09 %	0.41 %	0.32 %
1927	0.10 %	0.30 %	0.20 %	1968	0.17 %	0.34 %	0.17 %
1928	0.15 %	0.32 %	0.17 %	1969	- 0.47 %	0.12 %	0.59 %
1929	- 0.34 %	0.24 %	0.58 %	1970	- 0.21 %	0.15 %	0.36 %
1930	0.01 %	0.13 %	0.12 %	1971	- 0.08 %	0.12 %	0.20 %
1931	- 0.54 %	0.43 %	0.97 %	1972	- 0.14 %	0.30 %	0.44 %
1932	- 0.53 %	0.13 %	0.66 %	1973	- 0.38 %	0.01 %	0.39 %
1933	- 0.22 %	0.53 %	0.75 %	1974	- 0.40 %	- 0.04 %	0.36 %
1934	- 0.21 %	0.04 %	0.25 %	1975	- 0.01 %	0.30 %	0.31 %
1935	0.25 %	0.48 %	0.23 %	1976	0.10 %	0.23 %	0.13 %
1936	- 0.12 %	- 0.01 %	0.11 %	1977	0.01 %	0.34 %	0.33 %
1937	- 0.52 %	0.03 %	0.55 %	1978	0.15 %	0.39 %	0.24 %
1938	0.07 %	- 0.58 %	- 0.65 %	1979	0.06 %	0.39 %	0.33 %
1939	- 0.27 %	- 0.12 %	0.15 %	1980	0.07 %	0.40 %	0.33 %
1940	- 0.18 %	0.02 %	0.20 %	1981	- 0.13 %	0.38 %	0.51 %
1941	0.02 %	- 0.03 %	- 0.05 %	1982	- 0.05 %	0.26 %	0.31 %
1942	0.13 %	0.28 %	0.15 %	1983	- 0.10 %	0.32 %	0.42 %
1943	0.05 %	0.19 %	0.14 %	1984	- 0.26 %	0.11 %	0.37 %
1944	0.08 %	0.24 %	0.16 %	1985	- 0.10 %	0.26 %	0.36 %
1945	0.29 %	0.27 %	- 0.02 %	1986	- 0.12 %	0.28 %	0.40 %
1946	- 0.26 %	0.04 %	0.30 %	1987	- 0.05 %	0.26 %	0.31 %
1947	- 0.24 %	- 0.01 %	0.23 %	1988	- 0.08 %	0.27 %	0.35 %
1948	- 0.17 %	0.01 %	0.18 %	1989	- 0.05 %	0.25 %	0.30 %
1949	- 0.17 %	- 0.06 %	0.11 %	1990	- 0.07 %	0.17 %	0.24 %
1950	- 0.05 %	0.40 %	0.45 %	1991	0.02 %	0.23 %	0.21 %
1951	- 0.03 %	0.12 %	0.15 %	1992	0.14 %	0.37 %	0.23 %
1952	- 0.03 %	0.19 %	0.22 %	1993	0.13 %	0.30 %	0.17 %
1953	- 0.16 %	0.12 %	0.28 %	1994	- 0.03 %	0.33 %	0.36 %
1954	- 0.01 %	0.35 %	0.36 %	1995	0.13 %	0.35 %	0.22 %
1955	0.03 %	0.30 %	0.27 %	1996	0.06 %	0.32 %	0.26 %
1956	- 0.01 %	0.25 %	0.26 %	1997	0.18 %	0.34 %	0.16 %
1957	- 0.33 %	0.01 %	0.34 %	1998	- 0.01 %	0.31 %	0.32 %
1958	0.16 %	0.33 %	0.17 %	1999	0.11 %	0.46 %	0.35 %
1959	0.02 %	0.26 %	0.24 %	2000	- 0.01 %	0.49 %	0.50 %
1960	- 0.18 %	0.16 %	0.34 %	2001	0.06 %	0.19 %	0.13 %
1961	0.06 %	0.21 %	0.15 %	2002	- 0.12 %	0.23 %	0.35 %
1962	- 0.22 %	0.05 %	0.27 %	2003	0.40 %	0.19 %	- 0.21 %
1963	- 0.09 %	0.20 %	0.29 %	2004	0.04 %	0.32 %	0.28 %
1964	0.00 %	0.24 %	0.24 %	2005	0.17 %	0.19 %	0.02 %
1965	0.09 %	0.36 %	0.27 %	2006	0.06 %	0.12 %	0.06 %
1966	- 0.05 %	0.23 %	0.28 %	2007	- 0.02 %	0.23 %	0.25 %
				All	**- 0.04 %**	**0.24 %**	**0.28 %**

p-value < 0.000001 using a binomial test with parameters n = 37, success = 36, probability = 0.5

Panel C: Mean Monday and Friday return (value-weighted daily indices returns)

Year	Monday Return	Friday Return	Difference	Year	Monday Return	Friday Return	Difference
1926	-0.16%	0.07%	0.23%	1967	-0.14%	0.14%	0.28%
1927	-0.01%	0.11%	0.12%	1968	0.04%	0.07%	0.03%
1928	-0.05%	0.26%	0.31%	1969	-0.38%	0.12%	0.50%
1929	-0.84%	0.21%	1.05%	1970	-0.28%	0.17%	0.45%
1930	-0.47%	-0.07%	0.40%	1971	-0.03%	0.13%	0.16%
1931	-0.62%	0.15%	0.77%	1972	-0.15%	0.23%	0.38%
1932	-0.56%	-0.03%	0.53%	1973	-0.48%	-0.06%	0.42%
1933	0.21%	0.04%	-0.17%	1974	-0.36%	-0.21%	0.15%
1934	-0.33%	0.00%	0.33%	1975	0.17%	0.30%	0.13%
1935	0.12%	0.27%	0.15%	1976	0.15%	0.04%	-0.11%
1936	-0.21%	-0.02%	0.19%	1977	-0.06%	0.10%	0.16%
1937	-0.76%	-0.30%	0.46%	1978	-0.06%	0.19%	0.25%
1938	-0.17%	-0.11%	0.06%	1979	-0.02%	0.15%	0.17%
1939	-0.27%	-0.03%	0.24%	1980	-0.22%	0.18%	0.40%
1940	-0.19%	-0.19%	0.00%	1981	-0.20%	0.11%	0.31%
1941	0.01%	-0.17%	-0.18%	1982	-0.07%	0.17%	0.24%
1942	0.08%	0.01%	-0.07%	1983	-0.03%	0.12%	0.15%
1943	-0.12%	-0.04%	0.08%	1984	-0.12%	0.08%	0.20%
1944	0.00%	0.14%	0.14%	1985	0.07%	0.17%	0.10%
1945	0.09%	0.10%	0.01%	1986	-0.12%	0.12%	0.24%
1946	-0.27%	0.20%	0.47%	1987	-0.62%	-0.01%	0.61%
1947	-0.24%	-0.07%	0.17%	1988	0.08%	0.12%	0.04%
1948	-0.28%	0.07%	0.35%	1989	0.01%	0.13%	0.12%
1949	-0.13%	-0.03%	0.10%	1990	0.09%	0.01%	-0.08%
1950	-0.22%	0.25%	0.47%	1991	0.10%	-0.02%	-0.12%
1951	-0.06%	0.09%	0.15%	1992	0.14%	-0.06%	-0.20%
1952	-0.05%	0.21%	0.26%	1993	0.15%	-0.05%	-0.20%
1953	-0.27%	0.04%	0.31%	1994	-0.01%	0.01%	0.02%
1954	0.05%	0.26%	0.21%	1995	0.08%	0.13%	0.05%
1955	-0.22%	0.27%	0.49%	1996	0.09%	0.13%	0.04%
1956	-0.11%	0.26%	0.37%	1997	0.13%	0.08%	-0.05%
1957	-0.47%	-0.02%	0.45%	1998	-0.03%	0.22%	0.25%
1958	0.06%	0.26%	0.20%	1999	0.13%	0.27%	0.14%
1959	-0.13%	0.22%	0.35%	2000	-0.04%	0.02%	0.06%
1960	-0.31%	0.18%	0.49%	2001	-0.09%	-0.29%	-0.20%
1961	-0.04%	0.14%	0.18%	2002	-0.21%	-0.05%	0.16%
1962	-0.32%	-0.01%	0.31%	2003	0.12%	0.06%	-0.06%
1963	-0.07%	0.11%	0.18%	2004	0.03%	0.02%	-0.01%
1964	-0.02%	0.16%	0.18%	2005	0.13%	0.08%	-0.05%
1965	-0.12%	0.17%	0.29%	2006	-0.01%	-0.05%	-0.04%
1966	-0.23%	0.03%	0.26%	2007	-0.09%	0.10%	0.19%
				All	**-0.12%**	**0.08%**	**0.20%**

p-value = 0.02 using a binomial test with parameters n = 37, success = 26, probability = 0.5

Panel D: Median Monday and Friday return (value-weighted daily indices returns)

Year	Monday Return	Friday Return	Difference	Year	Monday Return	Friday Return	Difference
1926	0.03%	0.23%	0.20%	1967	-0.13%	0.16%	0.29%
1927	0.18%	0.23%	0.05%	1968	0.00%	0.16%	0.16%
1928	0.08%	0.35%	0.27%	1969	-0.43%	0.09%	0.52%
1929	-0.52%	0.33%	0.85%	1970	-0.21%	0.11%	0.32%
1930	-0.12%	0.13%	0.25%	1971	-0.17%	0.18%	0.35%
1931	-0.66%	0.17%	0.83%	1972	-0.15%	0.28%	0.43%
1932	-0.71%	-0.13%	0.58%	1973	-0.51%	-0.10%	0.41%
1933	-0.21%	0.05%	0.26%	1974	-0.21%	-0.39%	-0.18%
1934	-0.37%	-0.13%	0.24%	1975	0.09%	0.17%	0.08%
1935	0.21%	0.43%	0.22%	1976	0.12%	0.12%	0.00%
1936	0.03%	-0.13%	-0.16%	1977	-0.10%	0.05%	0.15%
1937	-0.53%	-0.16%	0.37%	1978	0.00%	0.08%	0.08%
1938	-0.13%	-0.45%	-0.32%	1979	0.09%	0.10%	0.01%
1939	-0.14%	0.02%	0.16%	1980	0.16%	0.27%	0.11%
1940	-0.06%	0.00%	0.06%	1981	-0.19%	0.05%	0.24%
1941	0.06%	-0.13%	-0.19%	1982	-0.04%	0.02%	0.06%
1942	0.12%	0.06%	-0.06%	1983	0.03%	0.19%	0.16%
1943	-0.05%	0.07%	0.12%	1984	-0.15%	-0.04%	0.11%
1944	0.06%	0.17%	0.11%	1985	0.04%	0.16%	0.12%
1945	0.17%	0.17%	0.00%	1986	0.07%	0.07%	0.00%
1946	-0.11%	0.01%	0.12%	1987	-0.03%	0.00%	0.03%
1947	-0.15%	0.06%	0.21%	1988	0.01%	0.17%	0.16%
1948	-0.06%	0.12%	0.18%	1989	0.09%	0.29%	0.20%
1949	-0.16%	-0.07%	0.09%	1990	0.29%	-0.07%	-0.36%
1950	-0.05%	0.34%	0.39%	1991	-0.01%	0.08%	0.09%
1951	-0.02%	0.09%	0.11%	1992	0.05%	-0.01%	-0.06%
1952	0.01%	0.17%	0.16%	1993	0.19%	0.02%	-0.17%
1953	-0.16%	0.08%	0.24%	1994	0.00%	0.11%	0.11%
1954	0.06%	0.31%	0.25%	1995	0.13%	0.17%	0.04%
1955	0.08%	0.30%	0.22%	1996	0.19%	0.18%	-0.01%
1956	-0.03%	0.27%	0.30%	1997	0.24%	0.32%	0.08%
1957	-0.39%	-0.04%	0.35%	1998	0.17%	0.25%	0.08%
1958	0.26%	0.22%	-0.04%	1999	0.01%	0.29%	0.28%
1959	-0.04%	0.19%	0.23%	2000	0.13%	0.11%	-0.02%
1960	-0.18%	0.18%	0.36%	2001	0.03%	-0.23%	-0.26%
1961	0.03%	0.16%	0.13%	2002	-0.06%	0.07%	0.13%
1962	-0.22%	0.01%	0.23%	2003	0.36%	0.08%	-0.28%
1963	-0.05%	0.14%	0.19%	2004	0.01%	0.08%	0.07%
1964	-0.01%	0.19%	0.20%	2005	0.19%	0.10%	-0.09%
1965	-0.01%	0.23%	0.24%	2006	0.04%	0.00%	-0.04%
1966	-0.10%	0.06%	0.16%	2007	-0.06%	0.20%	0.26%
				All	**-0.04%**	**0.11%**	**0.15%**

p-value < 0.01 using a binomial test with parameters n = 37, success = 27, probability = 0.5

Table 2: Monday effect in each year, separately for the three major exchanges. In Panel A (Panel B), I compute the mean (median) return on Monday and Friday in each year, computed using the daily CRSP equal-weighted daily indices returns for firms in the NYSE exchange. In Panel C (Panel D), I compute the mean (median) value-weighted returns for firms in the NYSE exchange.

Panels E through H repeats Panels A through D for firms in the AMEX exchange. Panels I through L repeats the analysis for firms in the NASDAQ exchange.

The two-sided p-value indicated under each panel tests the null hypothesis that the return distribution on Monday is the same as that on Friday. This binomial test is an out-of-sample analysis and uses only data after the year 1970.

Panel A: Mean Monday and Friday return (NYSE; equal-weighted)

Year	Monday Return	Friday Return	Difference	Year	Monday Return	Friday Return	Difference
1926	-0.20%	0.08%	0.28%	1967	-0.09%	0.26%	0.35%
1927	0.03%	0.13%	0.10%	1968	0.07%	0.13%	0.06%
1928	0.00%	0.19%	0.19%	1969	-0.44%	0.11%	0.55%
1929	-0.64%	0.21%	0.85%	1970	-0.24%	0.20%	0.44%
1930	-0.50%	-0.07%	0.43%	1971	0.04%	0.15%	0.11%
1931	-0.65%	0.42%	1.07%	1972	-0.12%	0.22%	0.34%
1932	-0.20%	0.52%	0.72%	1973	-0.51%	0.01%	0.52%
1933	0.65%	0.13%	-0.52%	1974	-0.41%	-0.04%	0.37%
1934	-0.41%	0.23%	0.64%	1975	0.26%	0.47%	0.21%
1935	0.23%	0.42%	0.19%	1976	0.19%	0.15%	-0.04%
1936	-0.21%	0.10%	0.31%	1977	-0.05%	0.21%	0.26%
1937	-0.88%	-0.27%	0.61%	1978	-0.13%	0.23%	0.36%
1938	0.02%	-0.12%	-0.14%	1979	-0.08%	0.26%	0.34%
1939	-0.34%	-0.08%	0.26%	1980	-0.23%	0.24%	0.47%
1940	-0.29%	-0.14%	0.15%	1981	-0.19%	0.21%	0.40%
1941	-0.05%	-0.07%	-0.02%	1982	-0.08%	0.22%	0.30%
1942	0.06%	0.22%	0.16%	1983	-0.04%	0.18%	0.22%
1943	-0.12%	0.05%	0.17%	1984	-0.18%	0.14%	0.32%
1944	0.01%	0.25%	0.24%	1985	-0.01%	0.21%	0.22%
1945	0.12%	0.17%	0.05%	1986	-0.16%	0.20%	0.36%
1946	-0.33%	0.29%	0.62%	1987	-0.58%	0.08%	0.66%
1947	-0.32%	-0.09%	0.23%	1988	0.03%	0.18%	0.15%
1948	-0.31%	0.06%	0.37%	1989	-0.08%	0.10%	0.18%
1949	-0.18%	-0.03%	0.15%	1990	-0.09%	0.03%	0.12%
1950	-0.26%	0.29%	0.55%	1991	0.08%	0.16%	0.08%
1951	-0.16%	0.13%	0.29%	1992	0.05%	0.08%	0.03%
1952	-0.08%	0.21%	0.29%	1993	0.10%	0.08%	-0.02%
1953	-0.28%	0.05%	0.33%	1994	-0.06%	0.05%	0.11%
1954	0.06%	0.30%	0.24%	1995	0.02%	0.17%	0.15%
1955	-0.24%	0.26%	0.50%	1996	0.04%	0.14%	0.10%
1956	-0.11%	0.21%	0.32%	1997	0.06%	0.09%	0.03%
1957	-0.47%	0.01%	0.48%	1998	-0.16%	0.14%	0.30%
1958	0.08%	0.32%	0.24%	1999	0.02%	0.19%	0.17%

1959	-0.13%	0.26%	0.39%	2000	-0.01%	0.08%	0.09%
1960	-0.30%	0.19%	0.49%	2001	-0.03%	0.04%	0.07%
1961	-0.03%	0.17%	0.20%	2002	-0.15%	0.09%	0.24%
1962	-0.33%	-0.01%	0.32%	2003	0.17%	0.12%	-0.05%
1963	-0.08%	0.12%	0.20%	2004	-0.03%	0.14%	0.17%
1964	0.01%	0.19%	0.18%	2005	0.12%	0.13%	0.01%
1965	-0.07%	0.24%	0.31%	2006	-0.04%	0.00%	0.04%
1966	-0.21%	0.06%	0.27%	2007	-0.14%	0.12%	0.26%
				All	**-0.13%**	**0.14%**	**0.27%**

p-value < 0.000001 using a binomial test with parameters n = 37, success = 34, probability = 0.5

Panel B: Median Monday and Friday return (NYSE; equal-weighted)

Year	Monday Return	Friday Return	Difference	Year	Monday Return	Friday Return	Difference
1926	-0.03%	0.20%	0.23%	1967	0.08%	0.23%	0.15%
1927	0.10%	0.30%	0.20%	1968	0.13%	0.29%	0.16%
1928	0.15%	0.32%	0.17%	1969	-0.45%	0.09%	0.54%
1929	-0.34%	0.24%	0.58%	1970	-0.19%	0.13%	0.32%
1930	0.01%	0.13%	0.12%	1971	-0.13%	0.12%	0.25%
1931	-0.54%	0.43%	0.97%	1972	-0.10%	0.24%	0.34%
1932	-0.53%	0.13%	0.66%	1973	-0.40%	0.04%	0.44%
1933	-0.22%	0.53%	0.75%	1974	-0.50%	-0.21%	0.29%
1934	-0.21%	0.04%	0.25%	1975	-0.04%	0.30%	0.34%
1935	0.25%	0.48%	0.23%	1976	0.15%	0.19%	0.04%
1936	-0.12%	-0.01%	0.11%	1977	-0.03%	0.27%	0.30%
1937	-0.52%	0.03%	0.55%	1978	-0.04%	0.31%	0.35%
1938	0.07%	-0.58%	-0.65%	1979	0.03%	0.24%	0.21%
1939	-0.27%	-0.12%	0.15%	1980	0.12%	0.33%	0.21%
1940	-0.18%	0.02%	0.20%	1981	-0.10%	0.32%	0.42%
1941	0.02%	-0.03%	-0.05%	1982	0.00%	0.07%	0.07%
1942	0.13%	0.28%	0.15%	1983	0.00%	0.28%	0.28%
1943	0.05%	0.19%	0.14%	1984	-0.19%	0.08%	0.27%
1944	0.08%	0.24%	0.16%	1985	-0.04%	0.23%	0.27%
1945	0.29%	0.27%	-0.02%	1986	-0.07%	0.23%	0.30%
1946	-0.26%	0.04%	0.30%	1987	0.00%	0.06%	0.06%
1947	-0.24%	-0.01%	0.23%	1988	-0.08%	0.22%	0.30%
1948	-0.17%	0.01%	0.18%	1989	0.02%	0.19%	0.17%
1949	-0.17%	-0.06%	0.11%	1990	-0.02%	0.02%	0.04%
1950	-0.05%	0.40%	0.45%	1991	0.06%	0.22%	0.16%
1951	-0.03%	0.12%	0.15%	1992	0.09%	0.09%	0.00%
1952	-0.03%	0.19%	0.22%	1993	0.15%	0.09%	-0.06%
1953	-0.16%	0.12%	0.28%	1994	-0.01%	0.19%	0.20%
1954	-0.01%	0.35%	0.36%	1995	0.08%	0.14%	0.06%
1955	0.03%	0.30%	0.27%	1996	0.12%	0.18%	0.06%
1956	-0.01%	0.25%	0.26%	1997	0.17%	0.23%	0.06%
1957	-0.33%	0.01%	0.34%	1998	-0.03%	0.14%	0.17%
1958	0.16%	0.33%	0.17%	1999	-0.03%	0.23%	0.26%
1959	0.02%	0.26%	0.24%	2000	-0.08%	0.14%	0.22%
1960	-0.18%	0.16%	0.34%	2001	0.09%	0.02%	-0.07%
1961	0.06%	0.21%	0.15%	2002	-0.22%	0.21%	0.43%
1962	-0.21%	0.01%	0.22%	2003	0.40%	0.15%	-0.25%
1963	-0.08%	0.18%	0.26%	2004	-0.01%	0.19%	0.20%
1964	0.02%	0.22%	0.20%	2005	0.20%	0.11%	-0.09%
1965	0.10%	0.29%	0.19%	2006	0.09%	0.04%	-0.05%
1966	0.00%	0.17%	0.17%	2007	-0.03%	0.24%	0.27%
				All	**-0.03%**	**0.18%**	**0.21%**

p-value < 0.00001 using a binomial test with parameters n = 37, success = 32, probability = 0.5

Panel C: Mean Monday and Friday return (NYSE; value-weighted)

Year	Monday Return	Friday Return	Difference	Year	Monday Return	Friday Return	Difference
1926	-0.16%	0.07%	0.23%	1967	-0.14%	0.13%	0.27%
1927	-0.01%	0.11%	0.12%	1968	0.03%	0.06%	0.03%
1928	-0.05%	0.26%	0.31%	1969	-0.37%	0.12%	0.49%
1929	-0.84%	0.21%	1.05%	1970	-0.27%	0.17%	0.44%
1930	-0.47%	-0.07%	0.40%	1971	-0.03%	0.12%	0.15%
1931	-0.62%	0.15%	0.77%	1972	-0.15%	0.22%	0.37%
1932	-0.56%	-0.03%	0.53%	1973	-0.47%	-0.07%	0.40%
1933	0.21%	0.04%	-0.17%	1974	-0.35%	-0.23%	0.12%
1934	-0.33%	0.00%	0.33%	1975	0.18%	0.29%	0.11%
1935	0.12%	0.27%	0.15%	1976	0.16%	0.03%	-0.13%
1936	-0.21%	-0.02%	0.19%	1977	-0.07%	0.09%	0.16%
1937	-0.76%	-0.30%	0.46%	1978	-0.05%	0.18%	0.23%
1938	-0.17%	-0.11%	0.06%	1979	-0.01%	0.12%	0.13%
1939	-0.27%	-0.03%	0.24%	1980	-0.20%	0.15%	0.35%
1940	-0.19%	-0.19%	0.00%	1981	-0.17%	0.09%	0.26%
1941	0.01%	-0.17%	-0.18%	1982	-0.05%	0.16%	0.21%
1942	0.08%	0.01%	-0.07%	1983	-0.01%	0.09%	0.10%
1943	-0.12%	-0.04%	0.08%	1984	-0.09%	0.06%	0.15%
1944	0.00%	0.14%	0.14%	1985	0.08%	0.16%	0.08%
1945	0.09%	0.10%	0.01%	1986	-0.09%	0.12%	0.21%
1946	-0.27%	0.20%	0.47%	1987	-0.63%	-0.03%	0.60%
1947	-0.24%	-0.07%	0.17%	1988	0.10%	0.12%	0.02%
1948	-0.28%	0.07%	0.35%	1989	0.04%	0.14%	0.10%
1949	-0.13%	-0.03%	0.10%	1990	0.12%	0.02%	-0.10%
1950	-0.22%	0.25%	0.47%	1991	0.11%	-0.03%	-0.14%
1951	-0.06%	0.09%	0.15%	1992	0.16%	-0.06%	-0.22%
1952	-0.05%	0.21%	0.26%	1993	0.18%	-0.06%	-0.24%
1953	-0.27%	0.04%	0.31%	1994	0.01%	0.00%	-0.01%
1954	0.05%	0.26%	0.21%	1995	0.10%	0.12%	0.02%
1955	-0.22%	0.27%	0.49%	1996	0.13%	0.12%	-0.01%
1956	-0.11%	0.26%	0.37%	1997	0.14%	0.08%	-0.06%
1957	-0.47%	-0.02%	0.45%	1998	-0.02%	0.20%	0.22%
1958	0.06%	0.26%	0.20%	1999	0.05%	0.21%	0.16%
1959	-0.13%	0.22%	0.35%	2000	0.22%	-0.10%	-0.32%
1960	-0.31%	0.18%	0.49%	2001	-0.05%	-0.19%	-0.14%
1961	-0.04%	0.14%	0.18%	2002	-0.20%	-0.02%	0.18%
1962	-0.32%	-0.01%	0.31%	2003	0.09%	0.11%	0.02%
1963	-0.07%	0.11%	0.18%	2004	0.02%	0.03%	0.01%
1964	-0.02%	0.16%	0.18%	2005	0.12%	0.09%	-0.03%
1965	-0.12%	0.17%	0.29%	2006	0.00%	-0.03%	-0.03%
1966	-0.23%	0.02%	0.25%	2007	-0.08%	0.10%	0.18%
				All	**-0.11%**	**0.07%**	**0.18%**

p-value < 0. 05 using a binomial test with parameters n = 37, success = 25, probability = 0.5

Panel D: Median Monday and Friday return (NYSE; value-weighted)

Year	Monday Return	Friday Return	Difference	Year	Monday Return	Friday Return	Difference
1926	0.03%	0.23%	0.20%	1967	-0.12%	0.16%	0.28%
1927	0.18%	0.23%	0.05%	1968	0.00%	0.16%	0.16%
1928	0.08%	0.35%	0.27%	1969	-0.40%	0.09%	0.49%
1929	-0.52%	0.33%	0.85%	1970	-0.22%	0.13%	0.35%
1930	-0.12%	0.13%	0.25%	1971	-0.17%	0.17%	0.34%
1931	-0.66%	0.17%	0.83%	1972	-0.17%	0.29%	0.46%
1932	-0.71%	-0.13%	0.58%	1973	-0.50%	-0.14%	0.36%
1933	-0.21%	0.05%	0.26%	1974	-0.23%	-0.42%	-0.19%
1934	-0.37%	-0.13%	0.24%	1975	0.15%	0.17%	0.02%
1935	0.21%	0.43%	0.22%	1976	0.11%	0.13%	0.02%
1936	0.03%	-0.13%	-0.16%	1977	-0.08%	0.04%	0.12%
1937	-0.53%	-0.16%	0.37%	1978	0.01%	0.06%	0.05%
1938	-0.13%	-0.45%	-0.32%	1979	0.09%	0.06%	-0.03%
1939	-0.14%	0.02%	0.16%	1980	0.15%	0.27%	0.12%
1940	-0.06%	0.00%	0.06%	1981	-0.19%	-0.01%	0.18%
1941	0.06%	-0.13%	-0.19%	1982	-0.01%	-0.06%	-0.05%
1942	0.12%	0.06%	-0.06%	1983	0.07%	0.15%	0.08%
1943	-0.05%	0.07%	0.12%	1984	-0.16%	0.00%	0.16%
1944	0.06%	0.17%	0.11%	1985	-0.01%	0.17%	0.18%
1945	0.17%	0.17%	0.00%	1986	0.09%	0.07%	-0.02%
1946	-0.11%	0.01%	0.12%	1987	0.02%	-0.01%	-0.03%
1947	-0.15%	0.06%	0.21%	1988	0.01%	0.19%	0.18%
1948	-0.06%	0.12%	0.18%	1989	0.13%	0.30%	0.17%
1949	-0.16%	-0.07%	0.09%	1990	0.36%	-0.09%	-0.45%
1950	-0.05%	0.34%	0.39%	1991	-0.04%	0.03%	0.07%
1951	-0.02%	0.09%	0.11%	1992	0.08%	-0.06%	-0.14%
1952	0.01%	0.17%	0.16%	1993	0.17%	0.00%	-0.17%
1953	-0.16%	0.08%	0.24%	1994	0.03%	0.12%	0.09%
1954	0.06%	0.31%	0.25%	1995	0.11%	0.12%	0.01%
1955	0.08%	0.30%	0.22%	1996	0.18%	0.23%	0.05%
1956	-0.03%	0.27%	0.30%	1997	0.24%	0.24%	0.00%
1957	-0.39%	-0.04%	0.35%	1998	0.03%	0.22%	0.19%
1958	0.26%	0.22%	-0.04%	1999	-0.12%	0.16%	0.28%
1959	-0.04%	0.19%	0.23%	2000	0.28%	-0.01%	-0.29%
1960	-0.18%	0.18%	0.36%	2001	0.03%	-0.18%	-0.21%
1961	0.03%	0.16%	0.13%	2002	-0.26%	0.16%	0.42%
1962	-0.22%	0.00%	0.22%	2003	0.29%	0.06%	-0.23%
1963	-0.05%	0.13%	0.18%	2004	-0.01%	0.10%	0.11%
1964	0.00%	0.19%	0.19%	2005	0.13%	0.07%	-0.06%
1965	-0.01%	0.23%	0.24%	2006	-0.02%	0.05%	0.07%
1966	-0.11%	0.05%	0.16%	2007	-0.04%	0.23%	0.27%
				All	**-0.03%**	**0.11%**	**0.14%**

p-value < 0.05 using a binomial test with parameters n = 37, success = 25, probability = 0.5

Panel E: Mean Monday and Friday return (AMEX; equal-weighted)

Year	Monday Return	Friday Return	Difference	Year	Monday Return	Friday Return	Difference
1926				1967	0.04%	0.53%	0.49%
1927				1968	0.15%	0.27%	0.12%
1928				1969	-0.63%	0.15%	0.78%
1929				1970	-0.35%	0.18%	0.53%
1930				1971	0.05%	0.27%	0.22%
1931				1972	-0.14%	0.33%	0.47%
1932				1973	-0.53%	0.04%	0.57%
1933				1974	-0.43%	0.17%	0.60%
1934				1975	0.24%	0.55%	0.31%
1935				1976	0.17%	0.28%	0.11%
1936				1977	-0.01%	0.34%	0.35%
1937				1978	-0.13%	0.33%	0.46%
1938				1979	-0.05%	0.38%	0.43%
1939				1980	-0.16%	0.36%	0.52%
1940				1981	-0.24%	0.29%	0.53%
1941				1982	-0.10%	0.32%	0.42%
1942				1983	-0.03%	0.34%	0.37%
1943				1984	-0.23%	0.20%	0.43%
1944				1985	-0.02%	0.22%	0.24%
1945				1986	-0.24%	0.29%	0.53%
1946				1987	-0.59%	0.28%	0.87%
1947				1988	0.03%	0.27%	0.24%
1948				1989	-0.10%	0.18%	0.28%
1949				1990	-0.18%	0.10%	0.28%
1950				1991	0.05%	0.25%	0.20%
1951				1992	0.03%	0.28%	0.25%
1952				1993	0.02%	0.26%	0.24%
1953				1994	-0.08%	0.22%	0.30%
1954				1995	0.00%	0.29%	0.29%
1955				1996	0.01%	0.28%	0.27%
1956				1997	-0.02%	0.22%	0.24%
1957				1998	-0.27%	0.33%	0.60%
1958				1999	0.02%	0.40%	0.38%
1959				2000	-0.10%	0.36%	0.46%
1960				2001	-0.01%	0.32%	0.33%
1961				2002	-0.11%	0.25%	0.36%
1962	-0.11%	0.16%	0.27%	2003	0.25%	0.29%	0.04%
1963	-0.09%	0.21%	0.30%	2004	-0.04%	0.23%	0.27%
1964	0.05%	0.27%	0.22%	2005	0.02%	0.22%	0.20%
1965	0.01%	0.40%	0.39%	2006	-0.13%	0.16%	0.29%
1966	-0.20%	0.16%	0.36%	2007	-0.12%	0.18%	0.30%
				All	**-0.09%**	**0.27%**	**0.36%**

p-value < 0.000001 using a binomial test with parameters n = 37, success = 37, probability = 0.5

Panel F: Median Monday and Friday return (AMEX; equal-weighted)

Year	Monday Return	Friday Return	Difference
1926			
1927			
1928			
1929			
1930			
1931			
1932			
1933			
1934			
1935			
1936			
1937			
1938			
1939			
1940			
1941			
1942			
1943			
1944			
1945			
1946			
1947			
1948			
1949			
1950			
1951			
1952			
1953			
1954			
1955			
1956			
1957			
1958			
1959			
1960			
1961			
1962	-0.06%	0.32%	0.38%
1963	-0.10%	0.23%	0.33%
1964	-0.01%	0.28%	0.29%
1965	0.13%	0.44%	0.31%
1966	-0.05%	0.31%	0.36%
1967	0.20%	0.56%	0.36%
1968	0.32%	0.39%	0.07%
1969	-0.52%	0.13%	0.65%
1970	-0.19%	0.14%	0.33%
1971	-0.06%	0.19%	0.25%
1972	-0.18%	0.33%	0.51%
1973	-0.39%	0.00%	0.39%
1974	-0.44%	-0.02%	0.42%
1975	0.06%	0.34%	0.28%
1976	0.12%	0.24%	0.12%
1977	-0.03%	0.34%	0.37%
1978	0.11%	0.54%	0.43%
1979	0.07%	0.46%	0.39%
1980	0.11%	0.50%	0.39%
1981	-0.10%	0.42%	0.52%
1982	-0.07%	0.42%	0.49%
1983	0.03%	0.38%	0.35%
1984	-0.29%	0.11%	0.40%
1985	-0.14%	0.25%	0.39%
1986	-0.24%	0.30%	0.54%
1987	-0.04%	0.30%	0.34%
1988	-0.06%	0.28%	0.34%
1989	0.01%	0.27%	0.26%
1990	-0.17%	0.16%	0.33%
1991	-0.06%	0.35%	0.41%
1992	0.01%	0.36%	0.35%
1993	-0.01%	0.31%	0.32%
1994	-0.07%	0.27%	0.34%
1995	0.12%	0.25%	0.13%
1996	0.09%	0.28%	0.19%
1997	0.11%	0.33%	0.22%
1998	-0.16%	0.30%	0.46%
1999	-0.01%	0.35%	0.36%
2000	-0.07%	0.50%	0.57%
2001	0.02%	0.33%	0.31%
2002	-0.10%	0.24%	0.34%
2003	0.35%	0.32%	-0.03%
2004	0.05%	0.29%	0.24%
2005	-0.02%	0.29%	0.31%
2006	0.01%	0.19%	0.18%
2007	0.03%	0.25%	0.22%
All	**-0.03%**	**0.30%**	**0.33%**

p-value < 0.000001 using a binomial test with parameters n = 37, success = 36, probability = 0.5

Panel G: Mean Monday and Friday return (AMEX; value-weighted)

Year	Monday Return	Friday Return	Difference	Year	Monday Return	Friday Return	Difference
1926				1967	-0.07%	0.30%	0.37%
1927				1968	0.06%	0.19%	0.13%
1928				1969	-0.55%	0.10%	0.65%
1929				1970	-0.40%	0.15%	0.55%
1930				1971	-0.06%	0.26%	0.32%
1931				1972	-0.19%	0.35%	0.54%
1932				1973	-0.40%	0.00%	0.40%
1933				1974	-0.42%	0.02%	0.44%
1934				1975	0.09%	0.33%	0.24%
1935				1976	0.04%	0.14%	0.10%
1936				1977	-0.06%	0.24%	0.30%
1937				1978	-0.17%	0.27%	0.44%
1938				1979	0.00%	0.45%	0.45%
1939				1980	-0.41%	0.31%	0.72%
1940				1981	-0.50%	0.17%	0.67%
1941				1982	-0.31%	0.20%	0.51%
1942				1983	-0.08%	0.20%	0.28%
1943				1984	-0.27%	0.14%	0.41%
1944				1985	0.03%	0.13%	0.10%
1945				1986	-0.29%	0.18%	0.47%
1946				1987	-0.56%	0.15%	0.71%
1947				1988	-0.02%	0.13%	0.15%
1948				1989	-0.06%	0.10%	0.16%
1949				1990	-0.15%	-0.03%	0.12%
1950				1991	0.00%	0.04%	0.04%
1951				1992	-0.08%	0.02%	0.10%
1952				1993	0.03%	0.09%	0.06%
1953				1994	-0.12%	0.07%	0.19%
1954				1995	-0.05%	0.10%	0.15%
1955				1996	-0.05%	0.12%	0.17%
1956				1997	-0.02%	0.11%	0.13%
1957				1998	-0.29%	0.17%	0.46%
1958				1999	0.06%	0.28%	0.22%
1959				2000	-0.16%	0.13%	0.29%
1960				2001	-0.11%	0.07%	0.18%
1961				2002	-0.15%	-0.01%	0.14%
1962	-0.10%	0.07%	0.17%	2003	0.12%	0.10%	-0.02%
1963	-0.12%	0.16%	0.28%	2004	0.00%	0.14%	0.14%
1964	0.00%	0.13%	0.13%	2005	0.13%	0.18%	0.05%
1965	-0.13%	0.23%	0.36%	2006	-0.11%	0.05%	0.16%
1966	-0.20%	0.11%	0.31%	2007	-0.15%	0.23%	0.38%
				All	**-0.14%**	**0.15%**	**0.29%**

p-value < 0.000001 using a binomial test with parameters n = 37, success = 36, probability = 0.5

Panel H: Median Monday and Friday return (AMEX; value-weighted)

Year	Monday Return	Friday Return	Difference	Year	Monday Return	Friday Return	Difference
1926				1967	0.06%	0.32%	0.26%
1927				1968	0.09%	0.27%	0.18%
1928				1969	-0.29%	0.13%	0.42%
1929				1970	-0.31%	0.09%	0.40%
1930				1971	-0.13%	0.22%	0.35%
1931				1972	-0.12%	0.38%	0.50%
1932				1973	-0.37%	-0.06%	0.31%
1933				1974	-0.39%	-0.19%	0.20%
1934				1975	0.03%	0.29%	0.26%
1935				1976	0.08%	0.13%	0.05%
1936				1977	0.01%	0.29%	0.28%
1937				1978	0.04%	0.30%	0.26%
1938				1979	0.06%	0.40%	0.34%
1939				1980	-0.23%	0.35%	0.58%
1940				1981	-0.46%	0.19%	0.65%
1941				1982	-0.01%	0.13%	0.14%
1942				1983	-0.04%	0.30%	0.34%
1943				1984	-0.30%	0.06%	0.36%
1944				1985	0.00%	0.20%	0.20%
1945				1986	-0.20%	0.14%	0.34%
1946				1987	-0.06%	0.10%	0.16%
1947				1988	-0.15%	0.15%	0.30%
1948				1989	-0.05%	0.25%	0.30%
1949				1990	-0.13%	0.05%	0.18%
1950				1991	-0.02%	0.15%	0.17%
1951				1992	-0.08%	0.00%	0.08%
1952				1993	0.09%	0.12%	0.03%
1953				1994	-0.06%	0.17%	0.23%
1954				1995	0.08%	0.11%	0.03%
1955				1996	-0.06%	0.19%	0.25%
1956				1997	0.14%	0.18%	0.04%
1957				1998	-0.02%	0.27%	0.29%
1958				1999	0.00%	0.31%	0.31%
1959				2000	-0.08%	0.24%	0.32%
1960				2001	0.04%	0.16%	0.12%
1961				2002	-0.07%	0.07%	0.14%
1962	-0.07%	0.08%	0.15%	2003	0.29%	0.19%	-0.10%
1963	-0.09%	0.21%	0.30%	2004	0.03%	0.23%	0.20%
1964	0.00%	0.14%	0.14%	2005	0.18%	0.16%	-0.02%
1965	-0.01%	0.28%	0.29%	2006	0.04%	-0.07%	-0.11%
1966	-0.10%	0.21%	0.31%	2007	-0.07%	0.31%	0.38%
				All	**-0.04%**	**0.19%**	**0.23%**

p-value < 0.000001 using a binomial test with parameters n = 37, success = 34, probability = 0.5

Panel I: Mean Monday and Friday return (NASDAQ; equal-weighted)

Year	Monday Return	Friday Return	Difference	Year	Monday Return	Friday Return	Difference
1926				1967			
1927				1968			
1928				1969			
1929				1970			
1930				1971			
1931				1972	-1.00%	0.47%	1.47%
1932				1973	-0.49%	0.01%	0.50%
1933				1974	-0.34%	0.03%	0.37%
1934				1975	0.15%	0.37%	0.22%
1935				1976	0.07%	0.27%	0.20%
1936				1977	0.06%	0.28%	0.22%
1937				1978	-0.07%	0.30%	0.37%
1938				1979	-0.02%	0.36%	0.38%
1939				1980	-0.17%	0.36%	0.53%
1940				1981	-0.28%	0.27%	0.55%
1941				1982	-0.17%	0.29%	0.46%
1942				1983	-0.10%	0.37%	0.47%
1943				1984	-0.27%	0.19%	0.46%
1944				1985	-0.05%	0.28%	0.33%
1945				1986	-0.18%	0.22%	0.40%
1946				1987	-0.48%	0.27%	0.75%
1947				1988	-0.04%	0.26%	0.30%
1948				1989	-0.21%	0.19%	0.40%
1949				1990	-0.17%	0.10%	0.27%
1950				1991	0.01%	0.32%	0.31%
1951				1992	0.06%	0.38%	0.32%
1952				1993	0.06%	0.39%	0.33%
1953				1994	-0.12%	0.29%	0.41%
1954				1995	0.00%	0.45%	0.45%
1955				1996	-0.04%	0.35%	0.39%
1956				1997	-0.03%	0.27%	0.30%
1957				1998	-0.22%	0.40%	0.62%
1958				1999	0.15%	0.51%	0.36%
1959				2000	-0.34%	0.42%	0.76%
1960				2001	-0.07%	0.18%	0.25%
1961				2002	-0.22%	0.20%	0.42%
1962				2003	0.29%	0.15%	-0.14%
1963				2004	-0.01%	0.15%	0.16%
1964				2005	0.08%	0.14%	0.06%
1965				2006	-0.10%	0.01%	0.11%
1966				2007	-0.20%	0.10%	0.30%
				All	**-0.10%**	**0.26%**	**0.36%**

p-value < 0.000001 using a binomial test with parameters n = 36, success = 35, probability = 0.5

Panel J: Median Monday and Friday return (NASDAQ; equal-weighted)

Year	Monday Return	Friday Return	Difference
1926			
1927			
1928			
1929			
1930			
1931			
1932			
1933			
1934			
1935			
1936			
1937			
1938			
1939			
1940			
1941			
1942			
1943			
1944			
1945			
1946			
1947			
1948			
1949			
1950			
1951			
1952			
1953			
1954			
1955			
1956			
1957			
1958			
1959			
1960			
1961			
1962			
1963			
1964			
1965			
1966			
1967			
1968			
1969			
1970			
1971			
1972	-1.00%	0.38%	1.38%
1973	-0.33%	0.02%	0.35%
1974	-0.43%	0.04%	0.47%
1975	0.02%	0.29%	0.27%
1976	0.07%	0.24%	0.17%
1977	0.12%	0.32%	0.20%
1978	0.18%	0.46%	0.28%
1979	0.14%	0.39%	0.25%
1980	0.14%	0.41%	0.27%
1981	-0.20%	0.44%	0.64%
1982	-0.10%	0.41%	0.51%
1983	-0.07%	0.35%	0.42%
1984	-0.31%	0.11%	0.42%
1985	-0.10%	0.29%	0.39%
1986	-0.13%	0.27%	0.40%
1987	-0.09%	0.26%	0.35%
1988	-0.02%	0.25%	0.27%
1989	-0.10%	0.27%	0.37%
1990	-0.08%	0.20%	0.28%
1991	0.03%	0.34%	0.31%
1992	0.09%	0.41%	0.32%
1993	0.11%	0.39%	0.28%
1994	-0.03%	0.40%	0.43%
1995	0.13%	0.49%	0.36%
1996	-0.01%	0.38%	0.39%
1997	0.19%	0.35%	0.16%
1998	-0.01%	0.37%	0.38%
1999	0.32%	0.51%	0.19%
2000	-0.02%	0.55%	0.57%
2001	0.17%	0.35%	0.18%
2002	-0.12%	0.19%	0.31%
2003	0.45%	0.17%	-0.28%
2004	0.14%	0.29%	0.15%
2005	0.15%	0.18%	0.03%
2006	0.09%	0.10%	0.01%
2007	-0.08%	0.26%	0.34%
All	**-0.02%**	**0.30%**	**0.32%**

p-value < 0.000001 using a binomial test with parameters n = 36, success = 35, probability = 0.5

Panel K: Mean Monday and Friday return (NASDAQ; value-weighted)

Year	Monday Return	Friday Return	Difference	Year	Monday Return	Friday Return	Difference
1926				1967			
1927				1968			
1928				1969			
1929				1970			
1930				1971			
1931				1972	-0.78%	0.57%	1.35%
1932				1973	-0.58%	0.01%	0.59%
1933				1974	-0.44%	-0.11%	0.33%
1934				1975	0.06%	0.35%	0.29%
1935				1976	0.04%	0.12%	0.08%
1936				1977	-0.03%	0.22%	0.25%
1937				1978	-0.16%	0.25%	0.41%
1938				1979	-0.09%	0.28%	0.37%
1939				1980	-0.32%	0.32%	0.64%
1940				1981	-0.30%	0.25%	0.55%
1941				1982	-0.17%	0.22%	0.39%
1942				1983	-0.19%	0.27%	0.46%
1943				1984	-0.27%	0.16%	0.43%
1944				1985	-0.02%	0.24%	0.26%
1945				1986	-0.24%	0.13%	0.37%
1946				1987	-0.62%	0.09%	0.71%
1947				1988	-0.04%	0.13%	0.17%
1948				1989	-0.17%	0.11%	0.28%
1949				1990	-0.01%	-0.03%	-0.02%
1950				1991	0.03%	0.05%	0.02%
1951				1992	0.02%	-0.08%	-0.10%
1952				1993	0.01%	0.01%	0.00%
1953				1994	-0.08%	0.04%	0.12%
1954				1995	-0.01%	0.21%	0.22%
1955				1996	-0.06%	0.17%	0.23%
1956				1997	0.09%	0.07%	-0.02%
1957				1998	-0.05%	0.29%	0.34%
1958				1999	0.40%	0.48%	0.08%
1959				2000	-0.60%	0.30%	0.90%
1960				2001	-0.26%	-0.65%	-0.39%
1961				2002	-0.25%	-0.14%	0.11%
1962				2003	0.23%	-0.14%	-0.37%
1963				2004	0.07%	-0.03%	-0.10%
1964				2005	0.13%	0.03%	-0.10%
1965				2006	-0.03%	-0.14%	-0.11%
1966				2007	-0.14%	0.07%	0.21%
				All	**-0.12%**	**0.10%**	**0.22%**

p-value < 0.01 using a binomial test with parameters $n = 36$, success = 28, probability = 0.5

Panel L: Median Monday and Friday return (NASDAQ; value-weighted)

Year	Monday Return	Friday Return	Difference	Year	Monday Return	Friday Return	Difference
1926				1967			
1927				1968			
1928				1969			
1929				1970			
1930				1971			
1931				1972	-0.78%	0.20%	0.98%
1932				1973	-0.61%	0.07%	0.68%
1933				1974	-0.41%	-0.14%	0.27%
1934				1975	-0.14%	0.25%	0.39%
1935				1976	0.07%	0.18%	0.11%
1936				1977	0.05%	0.30%	0.25%
1937				1978	0.00%	0.38%	0.38%
1938				1979	-0.02%	0.32%	0.34%
1939				1980	-0.03%	0.34%	0.37%
1940				1981	-0.18%	0.35%	0.53%
1941				1982	-0.12%	0.29%	0.41%
1942				1983	-0.15%	0.30%	0.45%
1943				1984	-0.25%	0.02%	0.27%
1944				1985	-0.08%	0.26%	0.34%
1945				1986	-0.22%	0.18%	0.40%
1946				1987	-0.16%	0.12%	0.28%
1947				1988	-0.01%	0.13%	0.14%
1948				1989	-0.07%	0.26%	0.33%
1949				1990	0.11%	0.07%	-0.04%
1950				1991	0.03%	0.13%	0.10%
1951				1992	-0.02%	-0.07%	-0.05%
1952				1993	0.12%	0.14%	0.02%
1953				1994	-0.04%	0.07%	0.11%
1954				1995	0.01%	0.19%	0.18%
1955				1996	0.03%	0.19%	0.16%
1956				1997	0.38%	0.15%	-0.23%
1957				1998	0.26%	0.24%	-0.02%
1958				1999	0.64%	0.78%	0.14%
1959				2000	-0.38%	0.62%	1.00%
1960				2001	-0.32%	-0.11%	0.21%
1961				2002	-0.07%	-0.24%	-0.17%
1962				2003	0.26%	-0.08%	-0.34%
1963				2004	0.05%	-0.04%	-0.09%
1964				2005	0.24%	0.14%	-0.10%
1965				2006	0.07%	-0.10%	-0.17%
1966				2007	-0.08%	0.14%	0.22%
				All	**-0.03%**	**0.18%**	**0.21%**

p-value < 0.01 using a binomial test with parameters n = 36, success = 27, probability = 0.5

Table 3: Effect of cost of short selling on the Monday effect. This time-series analysis shows that higher cost of short selling is associated with higher Monday effect. In each month, I compute the Monday effect. The Monday effect is the difference between the mean return on Friday and Monday, computed using the daily CRSP equal-weighted indices returns. As explained in Section 4, I use the monthly risk-free rate as the proxy for the cost of short selling.

Panel A shows that the Monday effect is positively associated with the cost of short selling (p-value < 0.02).

Panel B provides a robustness check. I run the regression separately in each decade. In all nine decades, the coefficient estimate for the cost of short selling is positive (p-value < 0.01 using a binomial test with parameters n = 9, success = 9, probability = 0.5).

Panel C provides yet another robustness check. In each decade, I separate the 120 months into two groups (based on the cost of short selling). In eight of the nine decades, the months with higher cost of short selling exhibit a higher Monday effect (p-value = 0.04 using a binomial test with parameters n = 9, success = 8, probability = 0.5).

Panel A: Time-series (monthly) regression of the Monday effect on the cost of short selling

	(1)	(2)
	MondayEffect	MondayEffect
shortsellcost		0.21
		(2.35)**
Constant	0.0031	0.0025
	(13.89)***	(6.98)***
Observations	984	978
R-squared	0.0000	0.0056

Absolute value of t statistics in parentheses
* significant at 10%; ** significant at 5%; *** significant at 1%

Panel B: Time-series (monthly) regression of the Monday effect on the cost of short selling, separately in each decade

Decade	Sign of coefficient estimate of shortsellcost
1920	Positive
1930	Positive
1940	Positive
1950	Positive
1960	Positive
1970	Positive
1980	Positive
1990	Positive
2000	Positive

p-value < 0.01 using a binomial test with parameters n = 9, success = 9, probability = 0.5

Panel C: Monday effect in each decade, partitioned by months with low/high cost of short selling

Decade	Cost of short selling		High > Low
	Low	High	
1920	0.12 %	0.58 %	Yes
1930	0.38 %	0.35 %	No
1940	0.06 %	0.26 %	Yes
1950	0.36 %	0.37 %	Yes
1960	0.31 %	0.34 %	Yes
1970	0.22 %	0.46 %	Yes
1980	0.41 %	0.43 %	Yes
1990	0.23 %	0.31 %	Yes
2000	0.15 %	0.23 %	Yes
All	**0.27 %**	**0.35 %**	**Yes**

p-value = 0.04 using a binomial test with parameters n = 9, success = 8, probability = 0.5

Table 4: Monday effect in each year, separately for each NYSE/AMEX/NASDAQ capitalization decile. In Panel A through Panel J, I compute the mean return on Monday and Friday in each year, separately for each NYSE/AMEX/NASDAQ capitalization decile. Firms with lowest market capitalization are in decile 1.

The two-sided p-value indicated under each panel tests the null hypothesis that the return distribution on Monday is the same as that on Friday. This binomial test is an out-of-sample analysis and uses only data after the year 1970.

Panel A: Mean Monday and Friday return (Decile 1)

Year	Monday Return	Friday Return	Difference	Year	Monday Return	Friday Return	Difference
1926	-0.12%	-0.06%	0.06%	1967	0.15%	0.61%	0.46%
1927	0.02%	0.13%	0.11%	1968	0.32%	0.33%	0.01%
1928	0.13%	0.23%	0.10%	1969	-0.53%	0.12%	0.65%
1929	-0.46%	-0.10%	0.36%	1970	-0.26%	0.17%	0.43%
1930	-0.90%	-0.52%	0.38%	1971	0.13%	0.24%	0.11%
1931	-1.23%	0.32%	1.55%	1972	0.09%	0.31%	0.22%
1932	-0.63%	0.39%	1.02%	1973	-0.41%	-0.04%	0.37%
1933	0.58%	-0.02%	-0.60%	1974	-0.41%	0.09%	0.50%
1934	-0.79%	0.48%	1.27%	1975	0.21%	0.42%	0.21%
1935	0.23%	0.18%	-0.05%	1976	0.10%	0.36%	0.26%
1936	-0.44%	0.17%	0.61%	1977	0.07%	0.36%	0.29%
1937	-1.17%	-0.29%	0.88%	1978	-0.05%	0.33%	0.38%
1938	0.11%	-0.20%	-0.31%	1979	0.00%	0.36%	0.36%
1939	-0.55%	-0.13%	0.42%	1980	0.00%	0.40%	0.40%
1940	-0.63%	-0.14%	0.49%	1981	-0.15%	0.33%	0.48%
1941	-0.12%	0.01%	0.13%	1982	-0.04%	0.40%	0.44%
1942	0.02%	0.43%	0.41%	1983	0.05%	0.55%	0.50%
1943	-0.19%	0.15%	0.34%	1984	-0.32%	0.19%	0.51%
1944	0.01%	0.36%	0.35%	1985	-0.09%	0.28%	0.37%
1945	0.11%	0.26%	0.15%	1986	-0.22%	0.29%	0.51%
1946	-0.39%	0.27%	0.66%	1987	-0.40%	0.37%	0.77%
1947	-0.38%	-0.06%	0.32%	1988	-0.07%	0.32%	0.39%
1948	-0.45%	0.05%	0.50%	1989	-0.19%	0.10%	0.29%
1949	-0.26%	0.00%	0.26%	1990	-0.20%	0.03%	0.23%
1950	-0.36%	0.44%	0.80%	1991	0.00%	0.47%	0.47%
1951	-0.25%	0.10%	0.35%	1992	0.00%	0.43%	0.43%
1952	-0.10%	0.22%	0.32%	1993	-0.02%	0.33%	0.35%
1953	-0.30%	0.08%	0.38%	1994	-0.23%	0.25%	0.48%
1954	-0.03%	0.45%	0.48%	1995	-0.15%	0.44%	0.59%
1955	-0.17%	0.34%	0.51%	1996	-0.10%	0.40%	0.50%
1956	-0.07%	0.10%	0.17%	1997	-0.26%	0.32%	0.58%
1957	-0.37%	0.08%	0.45%	1998	-0.49%	0.53%	1.02%
1958	0.07%	0.41%	0.34%	1999	0.13%	0.60%	0.47%
1959	-0.13%	0.30%	0.43%	2000	-0.08%	0.27%	0.35%
1960	-0.25%	0.17%	0.42%	2001	-0.11%	0.30%	0.41%
1961	-0.11%	0.19%	0.30%	2002	-0.03%	0.19%	0.22%
1962	-0.37%	-0.28%	0.09%	2003	0.42%	0.31%	-0.11%

1963	-0.04%	0.13%	0.17%		2004	0.10%	0.15%	0.05%
1964	0.03%	0.28%	0.25%		2005	0.06%	0.19%	0.13%
1965	0.04%	0.53%	0.49%		2006	-0.10%	0.14%	0.24%
1966	-0.11%	0.11%	0.22%		2007	-0.05%	0.17%	0.22%
					All	**-0.16%**	**0.22%**	**0.38%**

p-value < 0. 000001 using a binomial test with parameters n = 37, success = 36, probability = 0.5

Panel B: Mean Monday and Friday return (Decile 2)

Year	Monday Return	Friday Return	Difference	Year	Monday Return	Friday Return	Difference
1926	-0.28%	0.22%	0.50%	1967	0.08%	0.56%	0.48%
1927	0.07%	0.11%	0.04%	1968	0.18%	0.34%	0.16%
1928	0.09%	0.24%	0.15%	1969	-0.56%	0.15%	0.71%
1929	-0.69%	-0.08%	0.61%	1970	-0.32%	0.16%	0.48%
1930	-0.60%	-0.15%	0.45%	1971	0.06%	0.18%	0.12%
1931	-0.85%	-0.17%	0.68%	1972	-0.11%	0.32%	0.43%
1932	-0.23%	0.34%	0.57%	1973	-0.48%	-0.02%	0.46%
1933	0.53%	-0.39%	-0.92%	1974	-0.34%	0.05%	0.39%
1934	-0.54%	0.25%	0.79%	1975	0.11%	0.50%	0.39%
1935	0.10%	0.42%	0.32%	1976	0.12%	0.30%	0.18%
1936	-0.25%	0.14%	0.39%	1977	0.07%	0.31%	0.24%
1937	-0.99%	-0.33%	0.66%	1978	-0.15%	0.29%	0.44%
1938	-0.01%	-0.34%	-0.33%	1979	0.00%	0.43%	0.43%
1939	-0.52%	-0.29%	0.23%	1980	-0.13%	0.42%	0.55%
1940	-0.50%	-0.34%	0.16%	1981	-0.22%	0.30%	0.52%
1941	-0.17%	-0.15%	0.02%	1982	-0.13%	0.35%	0.48%
1942	-0.04%	0.26%	0.30%	1983	-0.12%	0.42%	0.54%
1943	-0.22%	-0.01%	0.21%	1984	-0.26%	0.21%	0.47%
1944	0.00%	0.27%	0.27%	1985	-0.06%	0.31%	0.37%
1945	0.15%	0.13%	-0.02%	1986	-0.19%	0.28%	0.47%
1946	-0.34%	0.35%	0.69%	1987	-0.48%	0.27%	0.75%
1947	-0.31%	-0.10%	0.21%	1988	-0.18%	0.28%	0.46%
1948	-0.42%	0.06%	0.48%	1989	-0.23%	0.21%	0.44%
1949	-0.19%	0.00%	0.19%	1990	-0.33%	0.01%	0.34%
1950	-0.26%	0.33%	0.59%	1991	-0.08%	0.26%	0.34%
1951	-0.22%	0.14%	0.36%	1992	-0.04%	0.33%	0.37%
1952	-0.11%	0.20%	0.31%	1993	0.00%	0.30%	0.30%
1953	-0.30%	0.09%	0.39%	1994	-0.23%	0.21%	0.44%
1954	0.08%	0.36%	0.28%	1995	-0.18%	0.43%	0.61%
1955	-0.21%	0.26%	0.47%	1996	-0.13%	0.27%	0.40%
1956	-0.10%	0.20%	0.30%	1997	-0.17%	0.22%	0.39%
1957	-0.44%	0.04%	0.48%	1998	-0.33%	0.36%	0.69%
1958	0.03%	0.38%	0.35%	1999	0.12%	0.45%	0.33%
1959	-0.09%	0.35%	0.44%	2000	-0.20%	0.22%	0.42%
1960	-0.34%	0.17%	0.51%	2001	0.02%	0.26%	0.24%
1961	0.01%	0.21%	0.20%	2002	-0.23%	0.14%	0.37%
1962	-0.29%	-0.08%	0.21%	2003	0.30%	0.24%	-0.06%
1963	-0.19%	0.17%	0.36%	2004	-0.06%	0.23%	0.29%
1964	-0.03%	0.26%	0.29%	2005	0.05%	0.16%	0.11%
1965	0.03%	0.44%	0.41%	2006	-0.09%	0.14%	0.23%
1966	-0.28%	0.14%	0.42%	2007	-0.11%	0.12%	0.23%
				All	**-0.17%**	**0.18%**	**0.35%**

p-value < 0. 000001 using a binomial test with parameters n = 37, success = 36, probability = 0.5

Panel C: Mean Monday and Friday return (Decile 3)

Year	Monday Return	Friday Return	Difference	Year	Monday Return	Friday Return	Difference
1926	-0.28%	0.01%	0.29%	1967	-0.07%	0.52%	0.59%
1927	0.01%	0.03%	0.02%	1968	0.07%	0.29%	0.22%
1928	-0.13%	0.22%	0.35%	1969	-0.68%	0.12%	0.80%
1929	-0.74%	0.14%	0.88%	1970	-0.32%	0.15%	0.47%
1930	-0.57%	-0.18%	0.39%	1971	0.00%	0.20%	0.20%
1931	-1.04%	0.29%	1.33%	1972	-0.14%	0.28%	0.42%
1932	-0.73%	0.16%	0.89%	1973	-0.47%	0.00%	0.47%
1933	0.49%	0.13%	-0.36%	1974	-0.35%	0.06%	0.41%
1934	-0.50%	0.16%	0.66%	1975	0.24%	0.41%	0.17%
1935	0.20%	0.34%	0.14%	1976	0.06%	0.31%	0.25%
1936	-0.30%	0.10%	0.40%	1977	0.08%	0.31%	0.23%
1937	-0.95%	-0.26%	0.69%	1978	-0.10%	0.34%	0.44%
1938	-0.03%	-0.22%	-0.19%	1979	-0.03%	0.40%	0.43%
1939	-0.33%	-0.19%	0.14%	1980	-0.21%	0.38%	0.59%
1940	-0.31%	-0.18%	0.13%	1981	-0.24%	0.33%	0.57%
1941	-0.11%	-0.09%	0.02%	1982	-0.11%	0.34%	0.45%
1942	-0.05%	0.15%	0.20%	1983	-0.18%	0.44%	0.62%
1943	-0.22%	0.01%	0.23%	1984	-0.25%	0.16%	0.41%
1944	0.05%	0.28%	0.23%	1985	-0.08%	0.24%	0.32%
1945	0.16%	0.15%	-0.01%	1986	-0.28%	0.24%	0.52%
1946	-0.28%	0.28%	0.56%	1987	-0.65%	0.25%	0.90%
1947	-0.27%	-0.13%	0.14%	1988	-0.08%	0.24%	0.32%
1948	-0.36%	0.09%	0.45%	1989	-0.28%	0.17%	0.45%
1949	-0.17%	-0.08%	0.09%	1990	-0.28%	0.05%	0.33%
1950	-0.27%	0.26%	0.53%	1991	-0.14%	0.25%	0.39%
1951	-0.20%	0.13%	0.33%	1992	-0.16%	0.24%	0.40%
1952	-0.11%	0.25%	0.36%	1993	-0.12%	0.30%	0.42%
1953	-0.29%	0.04%	0.33%	1994	-0.22%	0.17%	0.39%
1954	0.06%	0.31%	0.25%	1995	-0.05%	0.35%	0.40%
1955	-0.32%	0.29%	0.61%	1996	-0.10%	0.25%	0.35%
1956	-0.08%	0.18%	0.26%	1997	-0.02%	0.19%	0.21%
1957	-0.48%	0.05%	0.53%	1998	-0.25%	0.27%	0.52%
1958	0.06%	0.34%	0.28%	1999	0.17%	0.49%	0.32%
1959	-0.13%	0.25%	0.38%	2000	-0.26%	0.27%	0.53%
1960	-0.24%	0.17%	0.41%	2001	-0.06%	0.21%	0.27%
1961	-0.05%	0.16%	0.21%	2002	-0.12%	0.11%	0.23%
1962	-0.35%	-0.06%	0.29%	2003	0.19%	0.28%	0.09%
1963	-0.13%	0.18%	0.31%	2004	-0.08%	0.20%	0.28%
1964	0.04%	0.28%	0.24%	2005	0.05%	0.15%	0.10%
1965	-0.05%	0.30%	0.35%	2006	-0.09%	0.09%	0.18%
1966	-0.31%	0.16%	0.47%	2007	-0.13%	0.09%	0.22%
				All	**-0.18%**	**0.18%**	**0.36%**

p-value < 0. 000001 using a binomial test with parameters n = 37, success = 37, probability = 0.5

Panel D: Mean Monday and Friday return (Decile 4)

Year	Monday Return	Friday Return	Difference	Year	Monday Return	Friday Return	Difference
1926	-0.26%	0.03%	0.29%	1967	-0.12%	0.50%	0.62%
1927	0.08%	0.06%	-0.02%	1968	0.09%	0.24%	0.15%
1928	-0.13%	0.12%	0.25%	1969	-0.53%	0.11%	0.64%
1929	-0.61%	0.09%	0.70%	1970	-0.33%	0.19%	0.52%
1930	-0.71%	-0.19%	0.52%	1971	0.03%	0.23%	0.20%
1931	-0.72%	0.24%	0.96%	1972	-0.14%	0.27%	0.41%
1932	-0.32%	0.26%	0.58%	1973	-0.48%	0.04%	0.52%
1933	0.71%	-0.30%	-1.01%	1974	-0.42%	-0.01%	0.41%
1934	-0.49%	0.21%	0.70%	1975	0.20%	0.46%	0.26%
1935	0.17%	0.46%	0.29%	1976	0.10%	0.23%	0.13%
1936	-0.31%	0.12%	0.43%	1977	0.01%	0.29%	0.28%
1937	-0.92%	-0.28%	0.64%	1978	-0.16%	0.31%	0.47%
1938	-0.07%	-0.27%	-0.20%	1979	-0.07%	0.43%	0.50%
1939	-0.44%	-0.11%	0.33%	1980	-0.24%	0.35%	0.59%
1940	-0.29%	-0.24%	0.05%	1981	-0.22%	0.33%	0.55%
1941	-0.03%	-0.22%	-0.19%	1982	-0.13%	0.30%	0.43%
1942	-0.01%	0.17%	0.18%	1983	-0.12%	0.36%	0.48%
1943	-0.19%	-0.01%	0.18%	1984	-0.27%	0.18%	0.45%
1944	-0.06%	0.24%	0.30%	1985	-0.09%	0.28%	0.37%
1945	0.06%	0.23%	0.17%	1986	-0.27%	0.25%	0.52%
1946	-0.37%	0.30%	0.67%	1987	-0.63%	0.23%	0.86%
1947	-0.34%	-0.12%	0.22%	1988	-0.06%	0.22%	0.28%
1948	-0.27%	0.05%	0.32%	1989	-0.28%	0.13%	0.41%
1949	-0.22%	-0.04%	0.18%	1990	-0.38%	-0.04%	0.34%
1950	-0.25%	0.24%	0.49%	1991	-0.12%	0.27%	0.39%
1951	-0.17%	0.13%	0.30%	1992	-0.13%	0.19%	0.32%
1952	-0.10%	0.22%	0.32%	1993	-0.04%	0.24%	0.28%
1953	-0.29%	0.09%	0.38%	1994	-0.16%	0.15%	0.31%
1954	0.04%	0.29%	0.25%	1995	-0.09%	0.32%	0.41%
1955	-0.24%	0.27%	0.51%	1996	-0.08%	0.23%	0.31%
1956	-0.12%	0.22%	0.34%	1997	-0.05%	0.12%	0.17%
1957	-0.46%	0.00%	0.46%	1998	-0.26%	0.18%	0.44%
1958	0.10%	0.36%	0.26%	1999	0.05%	0.42%	0.37%
1959	-0.18%	0.31%	0.49%	2000	-0.20%	0.25%	0.45%
1960	-0.37%	0.23%	0.60%	2001	-0.02%	0.18%	0.20%
1961	-0.02%	0.21%	0.23%	2002	-0.15%	0.14%	0.29%
1962	-0.28%	0.01%	0.29%	2003	0.27%	0.18%	-0.09%
1963	-0.09%	0.19%	0.28%	2004	-0.06%	0.19%	0.25%
1964	-0.01%	0.31%	0.32%	2005	0.07%	0.14%	0.07%
1965	-0.07%	0.39%	0.46%	2006	-0.09%	0.04%	0.13%
1966	-0.31%	0.16%	0.47%	2007	-0.14%	0.10%	0.24%
				All	**-0.18%**	**0.17%**	**0.35%**

p-value < 0. 000001 using a binomial test with parameters n = 37, success = 36, probability = 0.5

Panel E: Mean Monday and Friday return (Decile 5)

Year	Monday Return	Friday Return	Difference	Year	Monday Return	Friday Return	Difference
1926	-0.26%	0.04%	0.30%	1967	-0.04%	0.36%	0.40%
1927	0.01%	0.08%	0.07%	1968	0.07%	0.20%	0.13%
1928	-0.07%	0.12%	0.19%	1969	-0.54%	0.12%	0.66%
1929	-0.67%	0.13%	0.80%	1970	-0.38%	0.14%	0.52%
1930	-0.46%	-0.05%	0.41%	1971	-0.03%	0.20%	0.23%
1931	-0.80%	0.23%	1.03%	1972	-0.23%	0.32%	0.55%
1932	-0.90%	0.08%	0.98%	1973	-0.54%	0.02%	0.56%
1933	0.36%	-0.17%	-0.53%	1974	-0.40%	0.06%	0.46%
1934	-0.65%	0.18%	0.83%	1975	0.21%	0.46%	0.25%
1935	0.11%	0.27%	0.16%	1976	0.09%	0.24%	0.15%
1936	-0.28%	0.07%	0.35%	1977	0.00%	0.32%	0.32%
1937	-0.97%	-0.35%	0.62%	1978	-0.17%	0.31%	0.48%
1938	0.16%	-0.36%	-0.52%	1979	-0.09%	0.36%	0.45%
1939	-0.41%	-0.13%	0.28%	1980	-0.28%	0.38%	0.66%
1940	-0.29%	-0.19%	0.10%	1981	-0.29%	0.27%	0.56%
1941	-0.08%	-0.11%	-0.03%	1982	-0.18%	0.32%	0.50%
1942	0.04%	0.19%	0.15%	1983	-0.16%	0.33%	0.49%
1943	-0.23%	-0.05%	0.18%	1984	-0.29%	0.15%	0.44%
1944	0.00%	0.29%	0.29%	1985	-0.05%	0.26%	0.31%
1945	0.11%	0.14%	0.03%	1986	-0.24%	0.20%	0.44%
1946	-0.35%	0.26%	0.61%	1987	-0.68%	0.25%	0.93%
1947	-0.35%	-0.12%	0.23%	1988	-0.07%	0.16%	0.23%
1948	-0.34%	0.05%	0.39%	1989	-0.29%	0.11%	0.40%
1949	-0.17%	-0.06%	0.11%	1990	-0.35%	0.00%	0.35%
1950	-0.28%	0.24%	0.52%	1991	-0.07%	0.19%	0.26%
1951	-0.16%	0.11%	0.27%	1992	-0.03%	0.20%	0.23%
1952	-0.09%	0.20%	0.29%	1993	-0.05%	0.20%	0.25%
1953	-0.31%	0.02%	0.33%	1994	-0.14%	0.07%	0.21%
1954	0.05%	0.31%	0.26%	1995	-0.02%	0.30%	0.32%
1955	-0.28%	0.27%	0.55%	1996	-0.06%	0.21%	0.27%
1956	-0.14%	0.23%	0.37%	1997	0.02%	0.10%	0.08%
1957	-0.51%	-0.02%	0.49%	1998	-0.28%	0.20%	0.48%
1958	0.06%	0.31%	0.25%	1999	0.05%	0.36%	0.31%
1959	-0.15%	0.27%	0.42%	2000	-0.24%	0.26%	0.50%
1960	-0.36%	0.17%	0.53%	2001	-0.06%	0.16%	0.22%
1961	-0.01%	0.15%	0.16%	2002	-0.19%	0.09%	0.28%
1962	-0.36%	0.01%	0.37%	2003	0.28%	0.02%	-0.26%
1963	-0.15%	0.14%	0.29%	2004	-0.04%	0.16%	0.20%
1964	-0.01%	0.19%	0.20%	2005	0.12%	0.14%	0.02%
1965	-0.06%	0.30%	0.36%	2006	-0.12%	-0.03%	0.09%
1966	-0.22%	0.13%	0.35%	2007	-0.23%	0.06%	0.29%
				All	**-0.19%**	**0.14%**	**0.33%**

p-value < 0.000001 using a binomial test with parameters $n = 37$, success $= 36$, probability $= 0.5$

Panel F: Mean Monday and Friday return (Decile 6)

Year	Monday Return	Friday Return	Difference	Year	Monday Return	Friday Return	Difference
1926	-0.22%	0.02%	0.24%	1967	-0.07%	0.37%	0.44%
1927	0.02%	0.06%	0.04%	1968	0.02%	0.13%	0.11%
1928	-0.03%	0.21%	0.24%	1969	-0.58%	0.13%	0.71%
1929	-0.77%	0.16%	0.93%	1970	-0.37%	0.19%	0.56%
1930	-0.42%	-0.15%	0.27%	1971	0.03%	0.15%	0.12%
1931	-0.70%	0.23%	0.93%	1972	-0.22%	0.26%	0.48%
1932	-0.76%	0.06%	0.82%	1973	-0.55%	0.03%	0.58%
1933	0.57%	-0.13%	-0.70%	1974	-0.46%	0.02%	0.48%
1934	-0.43%	0.09%	0.52%	1975	0.19%	0.51%	0.32%
1935	0.20%	0.43%	0.23%	1976	0.12%	0.23%	0.11%
1936	-0.17%	0.06%	0.23%	1977	-0.03%	0.31%	0.34%
1937	-0.88%	-0.37%	0.51%	1978	-0.19%	0.31%	0.50%
1938	-0.04%	-0.24%	-0.20%	1979	-0.10%	0.36%	0.46%
1939	-0.37%	-0.08%	0.29%	1980	-0.24%	0.33%	0.57%
1940	-0.24%	-0.20%	0.04%	1981	-0.29%	0.27%	0.56%
1941	-0.08%	-0.16%	-0.08%	1982	-0.19%	0.30%	0.49%
1942	0.00%	0.17%	0.17%	1983	-0.13%	0.30%	0.43%
1943	-0.13%	-0.01%	0.12%	1984	-0.28%	0.16%	0.44%
1944	-0.02%	0.26%	0.28%	1985	-0.03%	0.25%	0.28%
1945	0.14%	0.16%	0.02%	1986	-0.28%	0.18%	0.46%
1946	-0.32%	0.30%	0.62%	1987	-0.58%	0.18%	0.76%
1947	-0.29%	-0.10%	0.19%	1988	-0.08%	0.20%	0.28%
1948	-0.34%	0.01%	0.35%	1989	-0.22%	0.11%	0.33%
1949	-0.20%	-0.07%	0.13%	1990	-0.29%	-0.03%	0.26%
1950	-0.29%	0.26%	0.55%	1991	-0.06%	0.18%	0.24%
1951	-0.15%	0.13%	0.28%	1992	-0.03%	0.16%	0.19%
1952	-0.06%	0.19%	0.25%	1993	-0.03%	0.16%	0.19%
1953	-0.26%	0.01%	0.27%	1994	-0.17%	0.07%	0.24%
1954	0.04%	0.27%	0.23%	1995	-0.02%	0.24%	0.26%
1955	-0.25%	0.18%	0.43%	1996	-0.01%	0.21%	0.22%
1956	-0.10%	0.23%	0.33%	1997	0.05%	0.11%	0.06%
1957	-0.47%	0.00%	0.47%	1998	-0.23%	0.15%	0.38%
1958	0.09%	0.28%	0.19%	1999	0.11%	0.39%	0.28%
1959	-0.18%	0.26%	0.44%	2000	-0.30%	0.27%	0.57%
1960	-0.29%	0.14%	0.43%	2001	-0.12%	0.10%	0.22%
1961	-0.03%	0.12%	0.15%	2002	-0.22%	0.03%	0.25%
1962	-0.39%	0.02%	0.41%	2003	0.25%	-0.06%	-0.31%
1963	-0.10%	0.13%	0.23%	2004	-0.03%	0.09%	0.12%
1964	0.02%	0.20%	0.18%	2005	0.14%	0.10%	-0.04%
1965	-0.09%	0.29%	0.38%	2006	-0.09%	-0.08%	0.01%
1966	-0.26%	0.06%	0.32%	2007	-0.20%	0.07%	0.27%
				All	**-0.17%**	**0.13%**	**0.30%**

p-value < 0. 000001 using a binomial test with parameters n = 37, success = 35, probability = 0.5

Panel G: Mean Monday and Friday return (Decile 7)

Year	Monday Return	Friday Return	Difference	Year	Monday Return	Friday Return	Difference
1926	-0.20%	0.04%	0.24%	1967	-0.13%	0.31%	0.44%
1927	0.02%	0.14%	0.12%	1968	0.07%	0.10%	0.03%
1928	-0.07%	0.20%	0.27%	1969	-0.49%	0.08%	0.57%
1929	-0.85%	0.30%	1.15%	1970	-0.27%	0.16%	0.43%
1930	-0.49%	-0.08%	0.41%	1971	0.02%	0.20%	0.18%
1931	-0.62%	0.22%	0.84%	1972	-0.20%	0.26%	0.46%
1932	-0.62%	0.16%	0.78%	1973	-0.56%	0.00%	0.56%
1933	0.42%	-0.14%	-0.56%	1974	-0.43%	0.00%	0.43%
1934	-0.43%	0.06%	0.49%	1975	0.20%	0.44%	0.24%
1935	0.19%	0.39%	0.20%	1976	0.16%	0.19%	0.03%
1936	-0.20%	0.04%	0.24%	1977	-0.03%	0.27%	0.30%
1937	-0.80%	-0.33%	0.47%	1978	-0.17%	0.27%	0.44%
1938	-0.07%	-0.23%	-0.16%	1979	-0.10%	0.33%	0.43%
1939	-0.37%	-0.09%	0.28%	1980	-0.33%	0.37%	0.70%
1940	-0.30%	-0.19%	0.11%	1981	-0.26%	0.24%	0.50%
1941	0.01%	-0.13%	-0.14%	1982	-0.16%	0.22%	0.38%
1942	0.03%	0.10%	0.07%	1983	-0.13%	0.25%	0.38%
1943	-0.16%	0.01%	0.17%	1984	-0.21%	0.13%	0.34%
1944	0.01%	0.23%	0.22%	1985	-0.04%	0.23%	0.27%
1945	0.08%	0.19%	0.11%	1986	-0.24%	0.19%	0.43%
1946	-0.31%	0.22%	0.53%	1987	-0.59%	0.14%	0.73%
1947	-0.32%	-0.06%	0.26%	1988	-0.03%	0.15%	0.18%
1948	-0.29%	0.04%	0.33%	1989	-0.19%	0.10%	0.29%
1949	-0.18%	-0.03%	0.15%	1990	-0.20%	-0.04%	0.16%
1950	-0.23%	0.25%	0.48%	1991	-0.05%	0.12%	0.17%
1951	-0.14%	0.14%	0.28%	1992	-0.04%	0.08%	0.12%
1952	-0.08%	0.20%	0.28%	1993	-0.05%	0.12%	0.17%
1953	-0.29%	0.03%	0.32%	1994	-0.11%	0.03%	0.14%
1954	0.03%	0.28%	0.25%	1995	-0.02%	0.25%	0.27%
1955	-0.24%	0.22%	0.46%	1996	0.00%	0.20%	0.20%
1956	-0.13%	0.24%	0.37%	1997	0.07%	0.08%	0.01%
1957	-0.43%	0.02%	0.45%	1998	-0.18%	0.15%	0.33%
1958	0.09%	0.30%	0.21%	1999	0.08%	0.30%	0.22%
1959	-0.12%	0.25%	0.37%	2000	-0.32%	0.26%	0.58%
1960	-0.33%	0.19%	0.52%	2001	-0.16%	0.01%	0.17%
1961	-0.06%	0.16%	0.22%	2002	-0.25%	0.03%	0.28%
1962	-0.38%	-0.03%	0.35%	2003	0.26%	-0.09%	-0.35%
1963	-0.09%	0.12%	0.21%	2004	-0.04%	0.10%	0.14%
1964	0.01%	0.16%	0.15%	2005	0.17%	0.11%	-0.06%
1965	-0.07%	0.26%	0.33%	2006	-0.10%	-0.08%	0.02%
1966	-0.21%	0.04%	0.25%	2007	-0.20%	0.10%	0.30%
				All	**-0.16%**	**0.13%**	**0.29%**

p-value < 0. 000001 using a binomial test with parameters n = 37, success = 35, probability = 0.5

Panel H: Mean Monday and Friday return (Decile 8)

Year	Monday Return	Friday Return	Difference	Year	Monday Return	Friday Return	Difference
1926	-0.21%	0.05%	0.26%	1967	-0.08%	0.23%	0.31%
1927	0.01%	0.03%	0.02%	1968	-0.01%	0.11%	0.12%
1928	-0.03%	0.10%	0.13%	1969	-0.42%	0.12%	0.54%
1929	-0.78%	0.16%	0.94%	1970	-0.26%	0.14%	0.40%
1930	-0.50%	-0.13%	0.37%	1971	0.02%	0.12%	0.10%
1931	-0.85%	0.26%	1.11%	1972	-0.12%	0.24%	0.36%
1932	-0.58%	-0.09%	0.49%	1973	-0.53%	0.00%	0.53%
1933	0.22%	-0.02%	-0.24%	1974	-0.41%	-0.05%	0.36%
1934	-0.39%	0.04%	0.43%	1975	0.18%	0.42%	0.24%
1935	0.05%	0.36%	0.31%	1976	0.13%	0.16%	0.03%
1936	-0.18%	-0.04%	0.14%	1977	-0.05%	0.23%	0.28%
1937	-0.77%	-0.35%	0.42%	1978	-0.18%	0.23%	0.41%
1938	-0.10%	-0.18%	-0.08%	1979	-0.10%	0.31%	0.41%
1939	-0.37%	-0.12%	0.25%	1980	-0.30%	0.28%	0.58%
1940	-0.29%	-0.27%	0.02%	1981	-0.27%	0.22%	0.49%
1941	-0.01%	-0.16%	-0.15%	1982	-0.13%	0.24%	0.37%
1942	0.05%	0.05%	0.00%	1983	-0.12%	0.24%	0.36%
1943	-0.11%	0.02%	0.13%	1984	-0.22%	0.16%	0.38%
1944	-0.05%	0.21%	0.26%	1985	-0.02%	0.21%	0.23%
1945	0.07%	0.14%	0.07%	1986	-0.23%	0.17%	0.40%
1946	-0.36%	0.29%	0.65%	1987	-0.56%	0.11%	0.67%
1947	-0.33%	-0.03%	0.30%	1988	-0.02%	0.14%	0.16%
1948	-0.28%	0.06%	0.34%	1989	-0.14%	0.07%	0.21%
1949	-0.17%	-0.02%	0.15%	1990	-0.12%	-0.06%	0.06%
1950	-0.31%	0.26%	0.57%	1991	0.02%	0.08%	0.06%
1951	-0.12%	0.13%	0.25%	1992	0.03%	0.06%	0.03%
1952	-0.07%	0.22%	0.29%	1993	0.02%	0.07%	0.05%
1953	-0.26%	0.00%	0.26%	1994	-0.11%	0.05%	0.16%
1954	0.08%	0.26%	0.18%	1995	0.03%	0.21%	0.18%
1955	-0.27%	0.22%	0.49%	1996	-0.02%	0.15%	0.17%
1956	-0.12%	0.21%	0.33%	1997	0.06%	0.12%	0.06%
1957	-0.49%	0.00%	0.49%	1998	-0.19%	0.12%	0.31%
1958	0.05%	0.30%	0.25%	1999	0.09%	0.32%	0.23%
1959	-0.14%	0.26%	0.40%	2000	-0.29%	0.19%	0.48%
1960	-0.25%	0.17%	0.42%	2001	-0.17%	-0.10%	0.07%
1961	-0.03%	0.16%	0.19%	2002	-0.25%	0.02%	0.27%
1962	-0.32%	-0.02%	0.30%	2003	0.22%	-0.04%	-0.26%
1963	-0.10%	0.10%	0.20%	2004	-0.02%	0.10%	0.12%
1964	0.01%	0.16%	0.15%	2005	0.15%	0.11%	-0.04%
1965	-0.07%	0.22%	0.29%	2006	-0.10%	-0.09%	0.01%
1966	-0.21%	0.07%	0.28%	2007	-0.21%	0.10%	0.31%
				All	**-0.16%**	**0.10%**	**0.26%**

p-value < 0. 000001 using a binomial test with parameters n = 37, success = 35, probability = 0.5

Panel I: Mean Monday and Friday return (Decile 9)

Year	Monday Return	Friday Return	Difference	Year	Monday Return	Friday Return	Difference
1926	-0.14%	0.02%	0.16%	1967	-0.16%	0.17%	0.33%
1927	-0.03%	0.09%	0.12%	1968	0.03%	0.09%	0.06%
1928	-0.04%	0.33%	0.37%	1969	-0.37%	0.11%	0.48%
1929	-0.80%	0.25%	1.05%	1970	-0.22%	0.14%	0.36%
1930	-0.49%	-0.14%	0.35%	1971	-0.04%	0.11%	0.15%
1931	-0.78%	0.12%	0.90%	1972	-0.16%	0.22%	0.38%
1932	-0.57%	0.00%	0.57%	1973	-0.49%	0.02%	0.51%
1933	0.30%	0.01%	-0.29%	1974	-0.42%	-0.07%	0.35%
1934	-0.34%	0.03%	0.37%	1975	0.17%	0.44%	0.27%
1935	0.12%	0.28%	0.16%	1976	0.13%	0.12%	-0.01%
1936	-0.23%	-0.05%	0.18%	1977	-0.05%	0.18%	0.23%
1937	-0.80%	-0.26%	0.54%	1978	-0.16%	0.22%	0.38%
1938	-0.11%	-0.12%	-0.01%	1979	-0.10%	0.24%	0.34%
1939	-0.39%	-0.08%	0.31%	1980	-0.29%	0.26%	0.55%
1940	-0.24%	-0.24%	0.00%	1981	-0.26%	0.20%	0.46%
1941	-0.01%	-0.15%	-0.14%	1982	-0.11%	0.19%	0.30%
1942	0.07%	0.06%	-0.01%	1983	-0.11%	0.20%	0.31%
1943	-0.15%	-0.02%	0.13%	1984	-0.22%	0.18%	0.40%
1944	-0.04%	0.20%	0.24%	1985	-0.01%	0.20%	0.21%
1945	0.12%	0.14%	0.02%	1986	-0.20%	0.13%	0.33%
1946	-0.31%	0.22%	0.53%	1987	-0.59%	0.07%	0.66%
1947	-0.28%	-0.09%	0.19%	1988	0.01%	0.12%	0.11%
1948	-0.30%	0.07%	0.37%	1989	-0.10%	0.07%	0.17%
1949	-0.11%	0.00%	0.11%	1990	-0.06%	-0.06%	0.00%
1950	-0.27%	0.28%	0.55%	1991	0.05%	0.06%	0.01%
1951	-0.10%	0.14%	0.24%	1992	0.02%	0.01%	-0.01%
1952	-0.04%	0.20%	0.24%	1993	0.04%	0.05%	0.01%
1953	-0.20%	0.05%	0.25%	1994	-0.05%	0.03%	0.08%
1954	0.03%	0.25%	0.22%	1995	0.01%	0.15%	0.14%
1955	-0.27%	0.23%	0.50%	1996	0.02%	0.12%	0.10%
1956	-0.12%	0.28%	0.40%	1997	0.05%	0.08%	0.03%
1957	-0.40%	-0.02%	0.38%	1998	-0.14%	0.13%	0.27%
1958	0.06%	0.28%	0.22%	1999	0.14%	0.34%	0.20%
1959	-0.14%	0.19%	0.33%	2000	-0.38%	0.23%	0.61%
1960	-0.27%	0.18%	0.45%	2001	-0.12%	-0.17%	-0.05%
1961	-0.02%	0.16%	0.18%	2002	-0.21%	0.04%	0.25%
1962	-0.32%	-0.03%	0.29%	2003	0.15%	0.08%	-0.07%
1963	-0.07%	0.12%	0.19%	2004	-0.02%	0.12%	0.14%
1964	0.01%	0.16%	0.15%	2005	0.16%	0.12%	-0.04%
1965	-0.09%	0.20%	0.29%	2006	-0.08%	-0.03%	0.05%
1966	-0.20%	0.04%	0.24%	2007	-0.13%	0.14%	0.27%
				All	**-0.15%**	**0.10%**	**0.25%**

p-value < 0. 00001 using a binomial test with parameters n = 37, success = 32, probability = 0.5

Panel J: Mean Monday and Friday return (Decile 10)

Year	Monday Return	Friday Return	Difference	Year	Monday Return	Friday Return	Difference
1926	-0.15%	0.09%	0.24%	1967	-0.14%	0.09%	0.23%
1927	-0.01%	0.13%	0.14%	1968	0.04%	0.04%	0.00%
1928	-0.06%	0.28%	0.34%	1969	-0.35%	0.12%	0.47%
1929	-0.86%	0.20%	1.06%	1970	-0.29%	0.18%	0.47%
1930	-0.46%	-0.05%	0.41%	1971	-0.04%	0.12%	0.16%
1931	-0.57%	0.14%	0.71%	1972	-0.15%	0.23%	0.38%
1932	-0.55%	-0.04%	0.51%	1973	-0.47%	-0.07%	0.40%
1933	0.15%	0.07%	-0.08%	1974	-0.35%	-0.25%	0.10%
1934	-0.30%	-0.02%	0.28%	1975	0.17%	0.26%	0.09%
1935	0.12%	0.25%	0.13%	1976	0.15%	0.02%	-0.13%
1936	-0.21%	-0.02%	0.19%	1977	-0.07%	0.07%	0.14%
1937	-0.73%	-0.31%	0.42%	1978	-0.03%	0.17%	0.20%
1938	-0.21%	-0.08%	0.13%	1979	0.01%	0.11%	0.10%
1939	-0.22%	-0.01%	0.21%	1980	-0.21%	0.14%	0.35%
1940	-0.17%	-0.18%	-0.01%	1981	-0.18%	0.08%	0.26%
1941	0.03%	-0.18%	-0.21%	1982	-0.06%	0.15%	0.21%
1942	0.09%	-0.02%	-0.11%	1983	-0.01%	0.08%	0.09%
1943	-0.10%	-0.05%	0.05%	1984	-0.09%	0.05%	0.14%
1944	0.01%	0.10%	0.09%	1985	0.09%	0.15%	0.06%
1945	0.09%	0.07%	-0.02%	1986	-0.09%	0.11%	0.20%
1946	-0.23%	0.17%	0.40%	1987	-0.64%	-0.04%	0.60%
1947	-0.20%	-0.07%	0.13%	1988	0.10%	0.12%	0.02%
1948	-0.26%	0.07%	0.33%	1989	0.04%	0.15%	0.11%
1949	-0.12%	-0.03%	0.09%	1990	0.14%	0.03%	-0.11%
1950	-0.19%	0.24%	0.43%	1991	0.11%	-0.04%	-0.15%
1951	-0.02%	0.06%	0.08%	1992	0.16%	-0.09%	-0.25%
1952	-0.05%	0.21%	0.26%	1993	0.19%	-0.08%	-0.27%
1953	-0.28%	0.05%	0.33%	1994	0.01%	0.00%	-0.01%
1954	0.06%	0.25%	0.19%	1995	0.10%	0.12%	0.02%
1955	-0.20%	0.29%	0.49%	1996	0.11%	0.12%	0.01%
1956	-0.10%	0.26%	0.36%	1997	0.15%	0.07%	-0.08%
1957	-0.49%	-0.03%	0.46%	1998	0.00%	0.23%	0.23%
1958	0.05%	0.24%	0.19%	1999	0.13%	0.26%	0.13%
1959	-0.13%	0.21%	0.34%	2000	0.01%	-0.02%	-0.03%
1960	-0.33%	0.18%	0.51%	2001	-0.09%	-0.32%	-0.23%
1961	-0.04%	0.14%	0.18%	2002	-0.20%	-0.06%	0.14%
1962	-0.32%	-0.01%	0.31%	2003	0.10%	0.06%	-0.04%
1963	-0.07%	0.11%	0.18%	2004	0.04%	-0.01%	-0.05%
1964	-0.03%	0.16%	0.19%	2005	0.12%	0.07%	-0.05%
1965	-0.14%	0.15%	0.29%	2006	0.01%	-0.05%	-0.06%
1966	-0.23%	0.01%	0.24%	2007	-0.07%	0.09%	0.16%
				All	**-0.11%**	**0.07%**	**0.18%**

p-value = 0. 09 using a binomial test with parameters n = 37, success = 24, probability = 0.5

Table 5: Monday effect in each year, separately for each NYSE/AMEX standard deviation deciles. In Panel A through Panel J, I compute the mean return on Monday and Friday in each year, separately for each NYSE/AMEX standard deviation deciles. Firms with highest standard deviation are in decile 1.

The two-sided p-value indicated under each panel tests the null hypothesis that the return distribution on Monday is the same as that on Friday. This binomial test is an out-of-sample analysis and uses only data after the year 1970.

Panel A: Mean Monday and Friday return (Decile 1)

Year	Monday Return	Friday Return	Difference	Year	Monday Return	Friday Return	Difference
1926	-0.12%	0.37%	0.49%	1967	0.07%	0.78%	0.71%
1927	0.09%	0.65%	0.56%	1968	0.30%	0.37%	0.07%
1928	0.50%	0.30%	-0.20%	1969	-0.93%	0.18%	1.11%
1929	-0.36%	0.15%	0.51%	1970	-0.57%	0.22%	0.79%
1930	-0.49%	-0.09%	0.40%	1971	-0.05%	0.38%	0.43%
1931	-0.10%	1.26%	1.36%	1972	-0.21%	0.48%	0.69%
1932	1.00%	1.06%	0.06%	1973	-0.65%	0.11%	0.76%
1933	1.15%	0.69%	-0.46%	1974	-0.45%	0.34%	0.79%
1934	-0.49%	0.71%	1.20%	1975	0.30%	0.87%	0.57%
1935	0.76%	0.96%	0.20%	1976	0.17%	0.60%	0.43%
1936	-0.07%	0.43%	0.50%	1977	0.01%	0.45%	0.44%
1937	-0.99%	-0.16%	0.83%	1978	-0.16%	0.60%	0.76%
1938	0.14%	0.34%	0.20%	1979	-0.09%	0.50%	0.59%
1939	-0.33%	0.22%	0.55%	1980	-0.25%	0.53%	0.78%
1940	-0.54%	0.32%	0.86%	1981	-0.42%	0.42%	0.84%
1941	-0.20%	0.59%	0.79%	1982	-0.14%	0.44%	0.58%
1942	0.31%	0.92%	0.61%	1983	-0.06%	0.44%	0.50%
1943	-0.20%	0.30%	0.50%	1984	-0.34%	0.32%	0.66%
1944	0.08%	0.32%	0.24%	1985	-0.15%	0.40%	0.55%
1945	0.07%	0.27%	0.20%	1986	-0.39%	0.68%	1.07%
1946	-0.68%	0.39%	1.07%	1987	-0.69%	0.45%	1.14%
1947	-0.64%	-0.06%	0.58%	1988	-0.01%	0.60%	0.61%
1948	-0.61%	0.17%	0.78%	1989	-0.18%	0.47%	0.65%
1949	-0.36%	0.00%	0.36%	1990	-0.15%	0.57%	0.72%
1950	-0.47%	0.54%	1.01%	1991	0.46%	0.96%	0.50%
1951	-0.36%	0.08%	0.44%	1992	0.21%	0.78%	0.57%
1952	-0.21%	0.31%	0.52%	1993	0.06%	0.57%	0.51%
1953	-0.50%	0.15%	0.65%	1994	-0.02%	0.57%	0.59%
1954	0.02%	0.53%	0.51%	1995	-0.07%	0.57%	0.64%
1955	-0.32%	0.45%	0.77%	1996	-0.11%	0.53%	0.64%
1956	-0.27%	0.25%	0.52%	1997	-0.15%	0.43%	0.58%
1957	-0.70%	0.09%	0.79%	1998	-0.52%	0.69%	1.21%
1958	0.04%	0.51%	0.47%	1999	0.12%	0.65%	0.53%
1959	-0.31%	0.49%	0.80%	2000	-0.16%	0.61%	0.77%
1960	-0.51%	0.22%	0.73%	2001	-0.13%	0.73%	0.86%
1961	-0.13%	0.25%	0.38%	2002	-0.20%	0.60%	0.80%
1962	-0.49%	0.00%	0.49%	2003	0.51%	0.50%	-0.01%

1963	-0.19%	0.34%	0.53%
1964	0.05%	0.49%	0.44%
1965	0.13%	0.72%	0.59%
1966	-0.17%	0.27%	0.44%
2004	-0.07%	0.34%	0.41%
2005	-0.03%	0.35%	0.38%
2006	-0.27%	0.28%	0.55%
2007	-0.29%	0.34%	0.63%
All	**-0.15%**	**0.45%**	**0.60%**

p-value < 0. 000001 using a binomial test with parameters n = 37, success = 36, probability = 0.5

Panel B: Mean Monday and Friday return (Decile 2)

Year	Monday Return	Friday Return	Difference	Year	Monday Return	Friday Return	Difference
1926	-0.44%	0.02%	0.46%	1967	-0.09%	0.52%	0.61%
1927	0.04%	0.15%	0.11%	1968	0.08%	0.28%	0.20%
1928	-0.09%	0.31%	0.40%	1969	-0.77%	0.14%	0.91%
1929	-0.54%	0.30%	0.84%	1970	-0.47%	0.25%	0.72%
1930	-0.74%	0.06%	0.80%	1971	0.04%	0.32%	0.28%
1931	-0.68%	0.57%	1.25%	1972	-0.17%	0.44%	0.61%
1932	-0.02%	1.08%	1.10%	1973	-0.64%	0.08%	0.72%
1933	1.14%	0.32%	-0.82%	1974	-0.70%	0.24%	0.94%
1934	-0.38%	0.49%	0.87%	1975	0.33%	0.70%	0.37%
1935	0.28%	0.50%	0.22%	1976	0.16%	0.31%	0.15%
1936	-0.39%	0.24%	0.63%	1977	-0.05%	0.43%	0.48%
1937	-1.19%	-0.23%	0.96%	1978	-0.20%	0.30%	0.50%
1938	0.11%	-0.21%	-0.32%	1979	-0.17%	0.39%	0.56%
1939	-0.45%	-0.17%	0.28%	1980	-0.40%	0.41%	0.81%
1940	-0.44%	-0.21%	0.23%	1981	-0.45%	0.35%	0.80%
1941	-0.20%	-0.17%	0.03%	1982	-0.19%	0.30%	0.49%
1942	-0.07%	0.31%	0.38%	1983	-0.14%	0.31%	0.45%
1943	-0.15%	0.00%	0.15%	1984	-0.37%	0.21%	0.58%
1944	-0.09%	0.45%	0.54%	1985	-0.16%	0.26%	0.42%
1945	0.10%	0.24%	0.14%	1986	-0.31%	0.31%	0.62%
1946	-0.56%	0.38%	0.94%	1987	-0.78%	0.27%	1.05%
1947	-0.48%	-0.19%	0.29%	1988	-0.05%	0.29%	0.34%
1948	-0.56%	0.11%	0.67%	1989	-0.23%	0.12%	0.35%
1949	-0.33%	-0.04%	0.29%	1990	-0.44%	0.25%	0.69%
1950	-0.36%	0.39%	0.75%	1991	-0.10%	0.30%	0.40%
1951	-0.31%	0.09%	0.40%	1992	-0.10%	0.34%	0.44%
1952	-0.19%	0.28%	0.47%	1993	-0.04%	0.23%	0.27%
1953	-0.46%	0.05%	0.51%	1994	-0.18%	0.18%	0.36%
1954	0.06%	0.38%	0.32%	1995	-0.10%	0.26%	0.36%
1955	-0.38%	0.39%	0.77%	1996	-0.05%	0.22%	0.27%
1956	-0.21%	0.26%	0.47%	1997	-0.06%	0.16%	0.22%
1957	-0.65%	-0.01%	0.64%	1998	-0.38%	0.20%	0.58%
1958	0.03%	0.43%	0.40%	1999	0.08%	0.34%	0.26%
1959	-0.22%	0.34%	0.56%	2000	-0.17%	0.28%	0.45%
1960	-0.53%	0.34%	0.87%	2001	-0.12%	0.16%	0.28%
1961	-0.11%	0.25%	0.36%	2002	-0.26%	0.13%	0.39%
1962	-0.43%	-0.06%	0.37%	2003	0.29%	0.15%	-0.14%
1963	-0.16%	0.23%	0.39%	2004	-0.07%	0.27%	0.34%
1964	-0.05%	0.32%	0.37%	2005	0.10%	0.21%	0.11%
1965	-0.08%	0.44%	0.52%	2006	-0.15%	0.03%	0.18%
1966	-0.34%	0.17%	0.51%	2007	-0.21%	0.24%	0.45%
				All	**-0.22%**	**0.24%**	**0.46%**

p-value < 0. 000001 using a binomial test with parameters n = 37, success = 36, probability = 0.5

Panel C: Mean Monday and Friday return (Decile 3)

Year	Monday Return	Friday Return	Difference	Year	Monday Return	Friday Return	Difference
1926	-0.30%	-0.06%	0.24%	1967	-0.10%	0.51%	0.61%
1927	0.00%	0.07%	0.07%	1968	0.10%	0.23%	0.13%
1928	-0.12%	0.13%	0.25%	1969	-0.73%	0.14%	0.87%
1929	-0.68%	0.09%	0.77%	1970	-0.47%	0.24%	0.71%
1930	-0.52%	-0.13%	0.39%	1971	0.06%	0.25%	0.19%
1931	-0.79%	0.45%	1.24%	1972	-0.26%	0.36%	0.62%
1932	0.03%	1.31%	1.28%	1973	-0.62%	0.01%	0.63%
1933	0.65%	0.09%	-0.56%	1974	-0.48%	0.11%	0.59%
1934	-0.49%	0.18%	0.67%	1975	0.27%	0.59%	0.32%
1935	0.23%	0.34%	0.11%	1976	0.18%	0.22%	0.04%
1936	-0.25%	0.06%	0.31%	1977	-0.10%	0.40%	0.50%
1937	-1.01%	-0.28%	0.73%	1978	-0.25%	0.34%	0.59%
1938	-0.02%	-0.33%	-0.31%	1979	-0.15%	0.42%	0.57%
1939	-0.40%	-0.26%	0.14%	1980	-0.27%	0.47%	0.74%
1940	-0.48%	-0.34%	0.14%	1981	-0.33%	0.27%	0.60%
1941	-0.03%	-0.24%	-0.21%	1982	-0.19%	0.35%	0.54%
1942	-0.05%	0.25%	0.30%	1983	-0.11%	0.29%	0.40%
1943	-0.26%	-0.03%	0.23%	1984	-0.35%	0.11%	0.46%
1944	-0.03%	0.28%	0.31%	1985	-0.08%	0.22%	0.30%
1945	0.13%	0.19%	0.06%	1986	-0.28%	0.18%	0.46%
1946	-0.51%	0.40%	0.91%	1987	-0.74%	0.19%	0.93%
1947	-0.44%	-0.13%	0.31%	1988	0.02%	0.22%	0.20%
1948	-0.39%	0.09%	0.48%	1989	-0.18%	0.08%	0.26%
1949	-0.28%	-0.07%	0.21%	1990	-0.22%	-0.02%	0.20%
1950	-0.32%	0.35%	0.67%	1991	-0.01%	0.20%	0.21%
1951	-0.21%	0.18%	0.39%	1992	0.00%	0.11%	0.11%
1952	-0.15%	0.28%	0.43%	1993	0.02%	0.13%	0.11%
1953	-0.36%	0.04%	0.40%	1994	-0.11%	0.11%	0.22%
1954	0.01%	0.37%	0.36%	1995	-0.02%	0.21%	0.23%
1955	-0.30%	0.32%	0.62%	1996	-0.01%	0.16%	0.17%
1956	-0.14%	0.28%	0.42%	1997	-0.01%	0.10%	0.11%
1957	-0.64%	-0.01%	0.63%	1998	-0.27%	0.22%	0.49%
1958	0.04%	0.37%	0.33%	1999	0.04%	0.36%	0.32%
1959	-0.19%	0.28%	0.47%	2000	-0.11%	0.14%	0.25%
1960	-0.44%	0.24%	0.68%	2001	-0.03%	0.10%	0.13%
1961	-0.10%	0.20%	0.30%	2002	-0.22%	0.12%	0.34%
1962	-0.39%	0.03%	0.42%	2003	0.20%	0.13%	-0.07%
1963	-0.14%	0.22%	0.36%	2004	-0.07%	0.17%	0.24%
1964	-0.04%	0.27%	0.31%	2005	0.19%	0.15%	-0.04%
1965	-0.07%	0.38%	0.45%	2006	-0.14%	0.02%	0.16%
1966	-0.30%	0.20%	0.50%	2007	-0.22%	0.19%	0.41%
				All	**-0.19%**	**0.18%**	**0.37%**

p-value < 0. 000001 using a binomial test with parameters n = 37, success = 35, probability = 0.5

Panel D: Mean Monday and Friday return (Decile 4)

Year	Monday Return	Friday Return	Difference	Year	Monday Return	Friday Return	Difference
1926	-0.26%	0.03%	0.29%	1967	-0.06%	0.45%	0.51%
1927	0.09%	0.04%	-0.05%	1968	0.06%	0.18%	0.12%
1928	-0.01%	0.11%	0.12%	1969	-0.62%	0.14%	0.76%
1929	-0.73%	0.21%	0.94%	1970	-0.36%	0.22%	0.58%
1930	-0.69%	-0.10%	0.59%	1971	0.09%	0.22%	0.13%
1931	-0.83%	0.34%	1.17%	1972	-0.20%	0.30%	0.50%
1932	-0.11%	0.57%	0.68%	1973	-0.57%	0.08%	0.65%
1933	0.83%	0.14%	-0.69%	1974	-0.53%	0.08%	0.61%
1934	-0.52%	0.24%	0.76%	1975	0.29%	0.61%	0.32%
1935	0.22%	0.44%	0.22%	1976	0.24%	0.19%	-0.05%
1936	-0.36%	0.06%	0.42%	1977	-0.03%	0.32%	0.35%
1937	-1.10%	-0.37%	0.73%	1978	-0.21%	0.31%	0.52%
1938	0.27%	-0.23%	-0.50%	1979	-0.10%	0.35%	0.45%
1939	-0.53%	-0.24%	0.29%	1980	-0.28%	0.33%	0.61%
1940	-0.32%	-0.30%	0.02%	1981	-0.34%	0.25%	0.59%
1941	0.04%	-0.18%	-0.22%	1982	-0.11%	0.28%	0.39%
1942	0.08%	0.16%	0.08%	1983	-0.05%	0.25%	0.30%
1943	-0.21%	0.01%	0.22%	1984	-0.25%	0.14%	0.39%
1944	-0.03%	0.33%	0.36%	1985	-0.02%	0.19%	0.21%
1945	0.16%	0.20%	0.04%	1986	-0.20%	0.19%	0.39%
1946	-0.37%	0.34%	0.71%	1987	-0.65%	0.17%	0.82%
1947	-0.36%	-0.06%	0.30%	1988	0.08%	0.16%	0.08%
1948	-0.39%	0.05%	0.44%	1989	-0.13%	0.11%	0.24%
1949	-0.19%	-0.06%	0.13%	1990	-0.24%	-0.01%	0.23%
1950	-0.35%	0.30%	0.65%	1991	0.06%	0.13%	0.07%
1951	-0.16%	0.15%	0.31%	1992	0.00%	0.08%	0.08%
1952	-0.10%	0.22%	0.32%	1993	0.09%	0.13%	0.04%
1953	-0.31%	0.01%	0.32%	1994	-0.06%	0.06%	0.12%
1954	0.07%	0.32%	0.25%	1995	0.03%	0.17%	0.14%
1955	-0.29%	0.25%	0.54%	1996	0.01%	0.16%	0.15%
1956	-0.18%	0.27%	0.45%	1997	0.03%	0.08%	0.05%
1957	-0.59%	-0.02%	0.57%	1998	-0.20%	0.14%	0.34%
1958	0.03%	0.37%	0.34%	1999	0.00%	0.26%	0.26%
1959	-0.19%	0.26%	0.45%	2000	-0.05%	0.14%	0.19%
1960	-0.35%	0.19%	0.54%	2001	-0.06%	0.06%	0.12%
1961	-0.03%	0.21%	0.24%	2002	-0.19%	0.07%	0.26%
1962	-0.37%	-0.03%	0.34%	2003	0.18%	0.13%	-0.05%
1963	-0.10%	0.14%	0.24%	2004	0.00%	0.16%	0.16%
1964	-0.05%	0.24%	0.29%	2005	0.16%	0.14%	-0.02%
1965	-0.11%	0.36%	0.47%	2006	-0.09%	-0.04%	0.05%
1966	-0.26%	0.15%	0.41%	2007	-0.16%	0.16%	0.32%
				All	**-0.16%**	**0.15%**	**0.31%**

p-value < 0. 000001 using a binomial test with parameters n = 37, success = 34, probability = 0.5

Panel E: Mean Monday and Friday return (Decile 5)

Year	Monday Return	Friday Return	Difference	Year	Monday Return	Friday Return	Difference
1926	-0.24%	0.04%	0.28%	1967	-0.03%	0.37%	0.40%
1927	-0.02%	0.03%	0.05%	1968	0.09%	0.18%	0.09%
1928	-0.07%	0.16%	0.23%	1969	-0.52%	0.13%	0.65%
1929	-0.76%	0.06%	0.82%	1970	-0.29%	0.18%	0.47%
1930	-0.50%	-0.16%	0.34%	1971	0.06%	0.15%	0.09%
1931	-0.59%	0.45%	1.04%	1972	-0.13%	0.26%	0.39%
1932	-0.46%	0.32%	0.78%	1973	-0.59%	-0.03%	0.56%
1933	0.53%	0.03%	-0.50%	1974	-0.42%	0.03%	0.45%
1934	-0.60%	0.19%	0.79%	1975	0.19%	0.51%	0.32%
1935	0.21%	0.50%	0.29%	1976	0.19%	0.17%	-0.02%
1936	-0.28%	0.03%	0.31%	1977	-0.05%	0.30%	0.35%
1937	-1.05%	-0.41%	0.64%	1978	-0.16%	0.30%	0.46%
1938	-0.10%	-0.19%	-0.09%	1979	-0.07%	0.31%	0.38%
1939	-0.48%	-0.10%	0.38%	1980	-0.19%	0.30%	0.49%
1940	-0.32%	-0.23%	0.09%	1981	-0.22%	0.21%	0.43%
1941	0.03%	-0.18%	-0.21%	1982	-0.14%	0.25%	0.39%
1942	0.03%	0.17%	0.14%	1983	-0.06%	0.25%	0.31%
1943	-0.17%	0.01%	0.18%	1984	-0.23%	0.16%	0.39%
1944	-0.02%	0.29%	0.31%	1985	0.01%	0.20%	0.19%
1945	0.16%	0.19%	0.03%	1986	-0.18%	0.19%	0.37%
1946	-0.29%	0.33%	0.62%	1987	-0.56%	0.13%	0.69%
1947	-0.31%	-0.09%	0.22%	1988	0.05%	0.16%	0.11%
1948	-0.23%	0.01%	0.24%	1989	-0.09%	0.09%	0.18%
1949	-0.18%	-0.03%	0.15%	1990	-0.09%	-0.06%	0.03%
1950	-0.26%	0.28%	0.54%	1991	0.04%	0.07%	0.03%
1951	-0.17%	0.19%	0.36%	1992	0.09%	0.06%	-0.03%
1952	-0.04%	0.19%	0.23%	1993	0.12%	0.10%	-0.02%
1953	-0.29%	0.08%	0.37%	1994	-0.02%	0.03%	0.05%
1954	0.05%	0.27%	0.22%	1995	0.02%	0.16%	0.14%
1955	-0.25%	0.25%	0.50%	1996	0.03%	0.12%	0.09%
1956	-0.06%	0.28%	0.34%	1997	0.06%	0.09%	0.03%
1957	-0.57%	-0.04%	0.53%	1998	-0.12%	0.09%	0.21%
1958	0.08%	0.33%	0.25%	1999	0.03%	0.24%	0.21%
1959	-0.15%	0.29%	0.44%	2000	-0.02%	0.06%	0.08%
1960	-0.32%	0.14%	0.46%	2001	-0.04%	0.04%	0.08%
1961	-0.05%	0.15%	0.20%	2002	-0.17%	0.04%	0.21%
1962	-0.32%	-0.01%	0.31%	2003	0.18%	0.11%	-0.07%
1963	-0.09%	0.14%	0.23%	2004	0.00%	0.12%	0.12%
1964	0.03%	0.25%	0.22%	2005	0.16%	0.13%	-0.03%
1965	-0.06%	0.31%	0.37%	2006	-0.02%	-0.02%	0.00%
1966	-0.21%	0.08%	0.29%	2007	-0.15%	0.11%	0.26%
				All	**-0.14%**	**0.13%**	**0.27%**

p-value < 0. 00001 using a binomial test with parameters n = 37, success = 32, probability = 0.5

Panel F: Mean Monday and Friday return (Decile 6)

Year	Monday Return	Friday Return	Difference	Year	Monday Return	Friday Return	Difference
1926	-0.17%	0.04%	0.21%	1967	-0.04%	0.35%	0.39%
1927	0.06%	0.11%	0.05%	1968	0.10%	0.15%	0.05%
1928	-0.11%	0.13%	0.24%	1969	-0.48%	0.15%	0.63%
1929	-0.80%	0.19%	0.99%	1970	-0.25%	0.20%	0.45%
1930	-0.59%	-0.16%	0.43%	1971	0.04%	0.20%	0.16%
1931	-0.77%	0.44%	1.21%	1972	-0.13%	0.19%	0.32%
1932	-0.49%	0.26%	0.75%	1973	-0.55%	0.02%	0.57%
1933	0.52%	0.03%	-0.49%	1974	-0.37%	-0.02%	0.35%
1934	-0.51%	0.10%	0.61%	1975	0.27%	0.49%	0.22%
1935	0.12%	0.53%	0.41%	1976	0.23%	0.15%	-0.08%
1936	-0.28%	0.12%	0.40%	1977	-0.07%	0.23%	0.30%
1937	-0.93%	-0.36%	0.57%	1978	-0.12%	0.24%	0.36%
1938	-0.07%	-0.24%	-0.17%	1979	-0.03%	0.30%	0.33%
1939	-0.39%	-0.13%	0.26%	1980	-0.18%	0.23%	0.41%
1940	-0.27%	-0.17%	0.10%	1981	-0.17%	0.20%	0.37%
1941	-0.06%	-0.14%	-0.08%	1982	-0.11%	0.23%	0.34%
1942	0.07%	0.14%	0.07%	1983	-0.03%	0.21%	0.24%
1943	-0.09%	0.05%	0.14%	1984	-0.16%	0.15%	0.31%
1944	0.02%	0.27%	0.25%	1985	0.02%	0.19%	0.17%
1945	0.12%	0.15%	0.03%	1986	-0.16%	0.18%	0.34%
1946	-0.28%	0.22%	0.50%	1987	-0.57%	0.10%	0.67%
1947	-0.23%	-0.08%	0.15%	1988	0.04%	0.16%	0.12%
1948	-0.30%	0.06%	0.36%	1989	-0.04%	0.11%	0.15%
1949	-0.17%	-0.08%	0.09%	1990	-0.05%	-0.02%	0.03%
1950	-0.21%	0.27%	0.48%	1991	0.00%	0.04%	0.04%
1951	-0.13%	0.13%	0.26%	1992	0.06%	0.03%	-0.03%
1952	-0.10%	0.22%	0.32%	1993	0.11%	0.07%	-0.04%
1953	-0.28%	0.06%	0.34%	1994	-0.05%	0.02%	0.07%
1954	0.02%	0.32%	0.30%	1995	0.04%	0.16%	0.12%
1955	-0.21%	0.21%	0.42%	1996	0.08%	0.13%	0.05%
1956	-0.10%	0.22%	0.32%	1997	0.11%	0.08%	-0.03%
1957	-0.47%	-0.01%	0.46%	1998	-0.14%	0.14%	0.28%
1958	0.08%	0.28%	0.20%	1999	0.04%	0.16%	0.12%
1959	-0.12%	0.30%	0.42%	2000	0.02%	0.02%	0.00%
1960	-0.27%	0.17%	0.44%	2001	0.00%	0.00%	0.00%
1961	0.01%	0.13%	0.12%	2002	-0.14%	0.11%	0.25%
1962	-0.30%	-0.02%	0.28%	2003	0.15%	0.14%	-0.01%
1963	-0.07%	0.16%	0.23%	2004	0.02%	0.13%	0.11%
1964	0.04%	0.17%	0.13%	2005	0.10%	0.12%	0.02%
1965	-0.03%	0.25%	0.28%	2006	-0.02%	-0.02%	0.00%
1966	-0.16%	0.07%	0.23%	2007	-0.13%	0.11%	0.24%
				All	**-0.13%**	**0.12%**	**0.25%**

p-value < 0. 00001 using a binomial test with parameters n = 37, success = 32, probability = 0.5

Panel G: Mean Monday and Friday return (Decile 7)

Year	Monday Return	Friday Return	Difference	Year	Monday Return	Friday Return	Difference
1926	-0.16%	0.02%	0.18%	1967	-0.02%	0.28%	0.30%
1927	-0.02%	0.10%	0.12%	1968	0.05%	0.15%	0.10%
1928	0.02%	0.18%	0.16%	1969	-0.39%	0.11%	0.50%
1929	-0.60%	0.20%	0.80%	1970	-0.19%	0.15%	0.34%
1930	-0.44%	-0.07%	0.37%	1971	0.03%	0.15%	0.12%
1931	-0.68%	0.18%	0.86%	1972	-0.08%	0.21%	0.29%
1932	-0.56%	0.28%	0.84%	1973	-0.51%	-0.04%	0.47%
1933	0.41%	-0.03%	-0.44%	1974	-0.34%	-0.06%	0.28%
1934	-0.44%	0.03%	0.47%	1975	0.23%	0.35%	0.12%
1935	0.15%	0.33%	0.18%	1976	0.17%	0.11%	-0.06%
1936	-0.17%	0.03%	0.20%	1977	-0.02%	0.18%	0.20%
1937	-0.92%	-0.33%	0.59%	1978	-0.07%	0.21%	0.28%
1938	-0.07%	-0.18%	-0.11%	1979	-0.04%	0.24%	0.28%
1939	-0.37%	-0.06%	0.31%	1980	-0.16%	0.19%	0.35%
1940	-0.17%	-0.17%	0.00%	1981	-0.13%	0.18%	0.31%
1941	-0.01%	-0.09%	-0.08%	1982	-0.03%	0.20%	0.23%
1942	0.05%	0.13%	0.08%	1983	0.03%	0.19%	0.16%
1943	-0.06%	0.03%	0.09%	1984	-0.10%	0.13%	0.23%
1944	0.05%	0.20%	0.15%	1985	0.02%	0.16%	0.14%
1945	0.12%	0.10%	-0.02%	1986	-0.13%	0.17%	0.30%
1946	-0.19%	0.25%	0.44%	1987	-0.52%	0.08%	0.60%
1947	-0.22%	-0.12%	0.10%	1988	0.05%	0.19%	0.14%
1948	-0.26%	0.05%	0.31%	1989	-0.04%	0.09%	0.13%
1949	-0.11%	0.01%	0.12%	1990	0.00%	-0.04%	-0.04%
1950	-0.19%	0.23%	0.42%	1991	0.04%	0.05%	0.01%
1951	-0.10%	0.13%	0.23%	1992	0.08%	0.04%	-0.04%
1952	-0.05%	0.19%	0.24%	1993	0.13%	0.05%	-0.08%
1953	-0.21%	0.00%	0.21%	1994	-0.02%	0.00%	0.02%
1954	0.10%	0.27%	0.17%	1995	0.06%	0.13%	0.07%
1955	-0.18%	0.21%	0.39%	1996	0.10%	0.13%	0.03%
1956	-0.07%	0.20%	0.27%	1997	0.11%	0.08%	-0.03%
1957	-0.36%	0.01%	0.37%	1998	-0.09%	0.10%	0.19%
1958	0.09%	0.26%	0.17%	1999	0.03%	0.15%	0.12%
1959	-0.08%	0.21%	0.29%	2000	0.06%	-0.03%	-0.09%
1960	-0.25%	0.14%	0.39%	2001	0.02%	0.03%	0.01%
1961	0.02%	0.11%	0.09%	2002	-0.10%	0.05%	0.15%
1962	-0.26%	-0.02%	0.24%	2003	0.14%	0.14%	0.00%
1963	-0.05%	0.11%	0.16%	2004	0.02%	0.11%	0.09%
1964	0.05%	0.17%	0.12%	2005	0.08%	0.13%	0.05%
1965	-0.04%	0.24%	0.28%	2006	0.03%	0.00%	-0.03%
1966	-0.17%	0.03%	0.20%	2007	-0.11%	0.07%	0.18%
				All	**-0.10%**	**0.10%**	**0.20%**

p-value < 0. 001 using a binomial test with parameters n = 37, success = 30, probability = 0.5

Panel H: Mean Monday and Friday return (Decile 8)

Year	Monday Return	Friday Return	Difference	Year	Monday Return	Friday Return	Difference
1926	-0.13%	0.07%	0.20%	1967	-0.03%	0.21%	0.24%
1927	0.01%	0.12%	0.11%	1968	0.10%	0.16%	0.06%
1928	-0.04%	0.16%	0.20%	1969	-0.32%	0.11%	0.43%
1929	-0.69%	0.18%	0.87%	1970	-0.13%	0.14%	0.27%
1930	-0.34%	-0.10%	0.24%	1971	0.05%	0.12%	0.07%
1931	-0.70%	0.23%	0.93%	1972	-0.05%	0.18%	0.23%
1932	-0.64%	0.34%	0.98%	1973	-0.45%	-0.01%	0.44%
1933	0.49%	0.00%	-0.49%	1974	-0.33%	-0.08%	0.25%
1934	-0.34%	0.15%	0.49%	1975	0.26%	0.36%	0.10%
1935	0.17%	0.27%	0.10%	1976	0.15%	0.11%	-0.04%
1936	-0.17%	0.01%	0.18%	1977	-0.03%	0.16%	0.19%
1937	-0.69%	-0.23%	0.46%	1978	-0.07%	0.20%	0.27%
1938	-0.07%	-0.15%	-0.08%	1979	-0.01%	0.23%	0.24%
1939	-0.29%	-0.06%	0.23%	1980	-0.14%	0.16%	0.30%
1940	-0.14%	-0.13%	0.01%	1981	-0.06%	0.15%	0.21%
1941	-0.02%	-0.12%	-0.10%	1982	-0.03%	0.16%	0.19%
1942	0.06%	0.07%	0.01%	1983	0.00%	0.16%	0.16%
1943	-0.04%	0.06%	0.10%	1984	-0.11%	0.14%	0.25%
1944	0.07%	0.16%	0.09%	1985	0.06%	0.20%	0.14%
1945	0.10%	0.15%	0.05%	1986	-0.12%	0.15%	0.27%
1946	-0.16%	0.23%	0.39%	1987	-0.53%	0.07%	0.60%
1947	-0.22%	-0.06%	0.16%	1988	0.06%	0.15%	0.09%
1948	-0.16%	0.03%	0.19%	1989	-0.02%	0.09%	0.11%
1949	-0.06%	-0.03%	0.03%	1990	0.01%	0.01%	0.00%
1950	-0.15%	0.19%	0.34%	1991	0.07%	0.05%	-0.02%
1951	-0.06%	0.13%	0.19%	1992	0.06%	0.03%	-0.03%
1952	-0.02%	0.17%	0.19%	1993	0.11%	0.04%	-0.07%
1953	-0.19%	0.06%	0.25%	1994	-0.01%	0.01%	0.02%
1954	0.09%	0.21%	0.12%	1995	0.04%	0.13%	0.09%
1955	-0.21%	0.21%	0.42%	1996	0.09%	0.12%	0.03%
1956	-0.04%	0.18%	0.22%	1997	0.13%	0.07%	-0.06%
1957	-0.32%	0.03%	0.35%	1998	-0.07%	0.11%	0.18%
1958	0.10%	0.28%	0.18%	1999	0.04%	0.15%	0.11%
1959	-0.04%	0.18%	0.22%	2000	0.07%	0.01%	-0.06%
1960	-0.21%	0.14%	0.35%	2001	0.02%	0.03%	0.01%
1961	0.01%	0.15%	0.14%	2002	-0.07%	0.06%	0.13%
1962	-0.27%	0.01%	0.28%	2003	0.15%	0.13%	-0.02%
1963	-0.03%	0.11%	0.14%	2004	0.00%	0.11%	0.11%
1964	0.06%	0.13%	0.07%	2005	0.09%	0.10%	0.01%
1965	-0.04%	0.16%	0.20%	2006	0.02%	0.03%	0.01%
1966	-0.16%	0.02%	0.18%	2007	-0.07%	0.06%	0.13%
				All	**-0.08%**	**0.10%**	**0.18%**

p-value < 0. 001 using a binomial test with parameters n = 37, success = 30, probability = 0.5

Panel I: Mean Monday and Friday return (Decile 9)

Year	Monday Return	Friday Return	Difference	Year	Monday Return	Friday Return	Difference
1926	-0.09%	0.06%	0.15%	1967	-0.03%	0.16%	0.19%
1927	0.06%	0.11%	0.05%	1968	0.11%	0.13%	0.02%
1928	-0.01%	0.26%	0.27%	1969	-0.26%	0.12%	0.38%
1929	-0.66%	0.29%	0.95%	1970	-0.13%	0.15%	0.28%
1930	-0.38%	-0.07%	0.31%	1971	0.04%	0.09%	0.05%
1931	-0.56%	0.20%	0.76%	1972	-0.04%	0.16%	0.20%
1932	-0.36%	0.07%	0.43%	1973	-0.39%	0.01%	0.40%
1933	0.32%	0.02%	-0.30%	1974	-0.33%	-0.08%	0.25%
1934	-0.28%	0.10%	0.38%	1975	0.21%	0.33%	0.12%
1935	0.09%	0.20%	0.11%	1976	0.14%	0.09%	-0.05%
1936	-0.11%	0.04%	0.15%	1977	-0.03%	0.10%	0.13%
1937	-0.64%	-0.25%	0.39%	1978	-0.03%	0.15%	0.18%
1938	-0.02%	-0.05%	-0.03%	1979	0.02%	0.18%	0.16%
1939	-0.18%	0.00%	0.18%	1980	-0.13%	0.11%	0.24%
1940	-0.14%	-0.07%	0.07%	1981	-0.03%	0.18%	0.21%
1941	-0.07%	-0.07%	0.00%	1982	0.01%	0.17%	0.16%
1942	0.07%	0.05%	-0.02%	1983	0.05%	0.15%	0.10%
1943	-0.03%	0.06%	0.09%	1984	-0.07%	0.12%	0.19%
1944	0.08%	0.13%	0.05%	1985	0.08%	0.19%	0.11%
1945	0.12%	0.10%	-0.02%	1986	-0.09%	0.14%	0.23%
1946	-0.14%	0.14%	0.28%	1987	-0.42%	0.05%	0.47%
1947	-0.14%	-0.03%	0.11%	1988	0.02%	0.13%	0.11%
1948	-0.14%	0.03%	0.17%	1989	-0.02%	0.12%	0.14%
1949	-0.09%	0.01%	0.10%	1990	-0.04%	-0.03%	0.01%
1950	-0.14%	0.18%	0.32%	1991	0.07%	0.05%	-0.02%
1951	-0.06%	0.10%	0.16%	1992	0.05%	0.03%	-0.02%
1952	0.03%	0.15%	0.12%	1993	0.06%	0.04%	-0.02%
1953	-0.12%	0.03%	0.15%	1994	-0.04%	0.00%	0.04%
1954	0.06%	0.18%	0.12%	1995	0.06%	0.14%	0.08%
1955	-0.14%	0.17%	0.31%	1996	0.07%	0.10%	0.03%
1956	-0.02%	0.14%	0.16%	1997	0.11%	0.06%	-0.05%
1957	-0.29%	0.02%	0.31%	1998	-0.07%	0.08%	0.15%
1958	0.13%	0.21%	0.08%	1999	-0.03%	0.06%	0.09%
1959	-0.03%	0.14%	0.17%	2000	0.07%	0.05%	-0.02%
1960	-0.11%	0.13%	0.24%	2001	0.04%	0.01%	-0.03%
1961	0.03%	0.14%	0.11%	2002	-0.04%	0.08%	0.12%
1962	-0.23%	-0.03%	0.20%	2003	0.14%	0.14%	0.00%
1963	-0.02%	0.10%	0.12%	2004	-0.03%	0.12%	0.15%
1964	0.07%	0.12%	0.05%	2005	0.04%	0.08%	0.04%
1965	-0.06%	0.14%	0.20%	2006	0.02%	0.04%	0.02%
1966	-0.14%	0.02%	0.16%	2007	-0.03%	0.05%	0.08%
				All	**-0.06%**	**0.09%**	**0.15%**

p-value < 0. 001 using a binomial test with parameters n = 37, success = 30, probability = 0.5

Panel J: Mean Monday and Friday return (Decile 10)

Year	Monday Return	Friday Return	Difference	Year	Monday Return	Friday Return	Difference
1926	-0.06%	0.07%	0.13%	1967	0.00%	0.14%	0.14%
1927	0.02%	0.06%	0.04%	1968	0.11%	0.12%	0.01%
1928	-0.02%	0.17%	0.19%	1969	-0.22%	0.08%	0.30%
1929	-0.45%	0.22%	0.67%	1970	-0.06%	0.14%	0.20%
1930	-0.34%	-0.02%	0.32%	1971	0.05%	0.11%	0.06%
1931	-0.70%	0.20%	0.90%	1972	-0.01%	0.13%	0.14%
1932	-0.38%	0.05%	0.43%	1973	-0.24%	0.00%	0.24%
1933	0.26%	-0.03%	-0.29%	1974	-0.21%	-0.06%	0.15%
1934	-0.10%	0.10%	0.20%	1975	0.20%	0.24%	0.04%
1935	0.08%	0.14%	0.06%	1976	0.14%	0.10%	-0.04%
1936	-0.02%	0.00%	0.02%	1977	0.00%	0.08%	0.08%
1937	-0.37%	-0.13%	0.24%	1978	-0.06%	0.07%	0.13%
1938	0.01%	0.04%	0.03%	1979	-0.03%	0.11%	0.14%
1939	-0.08%	0.01%	0.09%	1980	-0.12%	0.11%	0.23%
1940	-0.08%	-0.07%	0.01%	1981	0.06%	0.13%	0.07%
1941	-0.06%	-0.11%	-0.05%	1982	0.06%	0.19%	0.13%
1942	0.07%	0.00%	-0.07%	1983	0.06%	0.11%	0.05%
1943	-0.04%	0.02%	0.06%	1984	-0.02%	0.12%	0.14%
1944	0.02%	0.10%	0.08%	1985	0.10%	0.16%	0.06%
1945	0.12%	0.08%	-0.04%	1986	-0.01%	0.13%	0.14%
1946	-0.10%	0.15%	0.25%	1987	-0.33%	0.03%	0.36%
1947	-0.12%	-0.05%	0.07%	1988	0.01%	0.12%	0.11%
1948	-0.11%	0.03%	0.14%	1989	0.00%	0.07%	0.07%
1949	-0.04%	0.03%	0.07%	1990	0.00%	-0.03%	-0.03%
1950	-0.13%	0.15%	0.28%	1991	0.09%	0.07%	-0.02%
1951	0.00%	0.08%	0.08%	1992	0.04%	0.04%	0.00%
1952	0.04%	0.13%	0.09%	1993	0.09%	0.00%	-0.09%
1953	-0.11%	0.02%	0.13%	1994	-0.09%	-0.02%	0.07%
1954	0.08%	0.17%	0.09%	1995	0.08%	0.12%	0.04%
1955	-0.09%	0.11%	0.20%	1996	0.06%	0.08%	0.02%
1956	0.00%	0.07%	0.07%	1997	0.10%	0.07%	-0.03%
1957	-0.11%	0.06%	0.17%	1998	-0.01%	0.04%	0.05%
1958	0.13%	0.18%	0.05%	1999	-0.08%	0.03%	0.11%
1959	0.01%	0.10%	0.09%	2000	0.05%	0.08%	0.03%
1960	-0.06%	0.14%	0.20%	2001	0.04%	0.02%	-0.02%
1961	0.08%	0.13%	0.05%	2002	0.00%	0.07%	0.07%
1962	-0.23%	0.00%	0.23%	2003	0.00%	0.08%	0.08%
1963	0.00%	0.08%	0.08%	2004	-0.09%	0.08%	0.17%
1964	0.06%	0.11%	0.05%	2005	0.02%	0.06%	0.04%
1965	-0.05%	0.08%	0.13%	2006	0.01%	0.06%	0.05%
1966	-0.13%	0.00%	0.13%	2007	0.01%	0.07%	0.06%
				All	**-0.04%**	**0.07%**	**0.11%**

p-value < 0. 0001 using a binomial test with parameters n = 37, success = 31, probability = 0.5

Table 6: Effect of relative information flow on the Monday effect. This cross-sectional analysis shows that higher relative information flow is associated with lower Monday effect.

In each firm-month, I regress the excess daily firm return on the daily Fama-French three factors. I then compute the standard deviation of residuals for each day of the week (i.e., my measure of information flow for each day of the week). Relative information flow is computed as the Monday information flow (per calendar day) minus the Friday information flow. As explained in Section 5, I use log returns for all returns in the market model regression to avoid spurious correlation between mean return and my measure of information flow.

Firms are then sorted cross-sectionally (by year) into ten groups. In Panel A below, I report the mean Monday effect for firms in each decile of relative information flow. The Monday effect is the difference between the mean return on Friday and Monday.

Panel B repeats Panel A for the subsample where Monday information flow (per calendar day) is less than Friday information flow. Panel C repeats Panel A for the subsample where Monday information flow (per calendar day) is greater or equal than Friday information flow.

Panel A: Mean Monday effect in deciles of Relative information flow

Relative information flow (ranks)	Mean Monday effect	Median Monday effect
1 (Lowest)	1.04 %	1.10 %
2	0.57 %	0.56 %
3	0.40 %	0.36 %
4	0.30 %	0.25 %
5	0.22 %	0.18 %
6	0.18 %	0.12 %
7	0.13 %	0.08 %
8	0.11 %	0.03 %
9	0.07 %	0.00 %
10 (Highest)	0.06 %	0.00 %

Panel B: Repeat Panel A for the subsample where Monday information flow (per calendar day) < Friday information flow

Relative information flow (ranks)	Mean Monday effect	Median Monday effect
1 (Lowest)	1.07 %	1.14 %
2	0.61 %	0.60 %
3	0.43 %	0.40 %
4	0.33 %	0.28 %
5	0.25 %	0.20 %
6	0.20 %	0.15 %
7	0.16 %	0.11 %
8	0.12 %	0.06 %
9	0.10 %	0.02 %
10 (Highest)	0.07 %	0.00 %

Panel C: Repeat Panel A for the subsample where Monday information flow (per calendar day) ≥ Friday information flow

Relative information flow (ranks)	Mean Monday effect	Median Monday effect
1 (Lowest)	0.02 %	0.00 %
2	0.03 %	0.00 %
3	0.08 %	0.00 %
4	0.07 %	0.00 %
5	0.07 %	0.00 %
6	0.06 %	0.01 %
7	0.10 %	0.03 %
8	0.09 %	0.03 %
9	0.09 %	0.03 %
10 (Highest)	0.01 %	-0.05 %

Surprising absence of scale for forecast error and forecast dispersion distributions

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Current Version: January 4, 2009

We received helpful comments from Jeff Abarbanell, Larry Brown, Jim Ohlson, Phil Shane, Frank Zhang and seminar participants at Yale. We thank Shawn Thomas for graciously providing us the data that allowed us to illustrate our conjectures about the impact of price deflation.

Surprising absence of scale for forecast error and forecast dispersion distributions

1. Introduction

Since both actual earnings per share (EPS) and consensus forecasts vary with the scale of individual shares, where scale is typically measured as price per share, conventional wisdom is that magnitudes of the difference should also vary with scale. That is, the distribution of forecast errors for high-price shares should be associated with larger absolute forecast errors and larger measures of variability, such as the variance and interquartile range. To investigate the validity of this intuition we examine the distributions of forecast errors for deciles of share price, where errors are measured as reported quarterly EPS according to I/B/E/S less the most recent consensus analyst forecast available. We find, much to our surprise, that there is little difference in measures of variability across forecast error distributions for different price deciles.

To explore further why the variability of forecast errors does not vary with share prices, we investigate the dispersion of individual forecasts around the consensus. Prior research (e.g., Barron et al. [1998]) has emphasized differences between the two constructs: whereas the variability of forecast errors is an across-firm-quarter measure of *predictability*—the ability of consensus forecasts to accurately predict actual EPS—forecast dispersion captures *disagreement* across analysts around the consensus for the same firm-quarter. Despite these differences, conventional wisdom holds that disagreement should also vary with scale, similar to predictability. Disagreement across analysts, measured in cents per share, must surely be higher for higher priced shares with larger values of forecast EPS. Again, much to our surprise, we find the evidence contradicts the intuition: dispersion of forecasts varies little across price deciles.

Before proceeding further, we find it useful to provide some background and describe the labels we use for different constructs. Underlying the I/B/E/S data are forecasts of EPS (F_{ijt}) made by analyst j for firm i in quarter t. The mean (μ_{it}) and standard deviation (σ_{it}) of the distribution of forecasts for each firm-quarter are referred to as the consensus forecast and forecast dispersion, respectively. Individual forecasts and the consensus are subtracted from the actual EPS reported for that firm-quarter to generate forecast errors for each analyst (FE_{ijt}) and for the firm-quarter (FE_{it}), respectively. These forecast errors are then pooled to generate a second set of distributions, described by parameters such as the mean (μ) and standard deviation (σ) representing forecast bias and predictability, respectively.[24]

To investigate these intuitions regarding predictability and disagreement, we collect a sample of firm-quarters, each with a forecast error (FE_{it}) and a dispersion value (σ_{it}). We then group observations into deciles every quarter, based on beginning-of-quarter share prices, and generate distributions for forecast error and dispersion for those price deciles. To describe the distributions generated, we compute two measures of central tendency—mean and median—and three measures of variability—standard deviation, interquartile range, and the range between the 5th and 95th percentiles. We focus on measures of variability for forecast errors when investigating predictability and mean/median dispersion when investigating disagreement. We considered mean/median *absolute* forecast errors as an alternative measure of predictability, but use those results only for purposes of illustration since they are biased slightly by mean forecast errors being systematically different from zero, especially for more extreme price deciles.

[24] We refer to these second set of distributions for illustrative purposes, since they may not actually arise in practice. For example, in analyses based on regressions of forecast errors on its determinants, bias may refer to the intercept and predictability may refer to variability of the error term.

The following statistics illustrate how substantially our findings deviate from the intuition in the literature. To provide context, the mean (median) beginning-of-quarter share price of our lowest price decile is approximately \$5 (\$5), which is less than one-tenth the mean (median) share price of our highest price decile of approximately \$73 (\$62). And the magnitudes of forecast and actual EPS vary proportionately with this substantial variation in the scale of share prices across price deciles. Despite this substantial variation across price deciles in the scale of actual and forecast EPS, disagreement and predictability vary only slightly with share price. The mean (median) dispersion of forecasts around the consensus forecast is 3 (1) cents for the lowest priced decile versus 5 (2) cents for the highest priced decile, and the standard deviation (interquartile range) of forecast errors for the lowest price decile is 24 (5) cents versus 27 (5) cents for the highest price decile. As a first approximation our evidence suggests that forecast dispersion and forecast errors of a particular amount (say within ± 5 cents) are as likely for a \$5 stock as they are for a \$70 stock. We conduct a host of sensitivity analyses and confirm that both findings are robust.

Prior research, apparently unaware of these results, has relied on the common wisdom regarding predictability and disagreement varying with scale and deflated both variables before using them as dependent or independent variables. Predictability is typically measured by absolute value of forecast errors and the scaling variable is share price or the level of reported/forecast earnings (e.g., Duru and Reeb [2002, eq. 1 and 4], Hope [2003, Table 5]). Disagreement is typically measured by forecast dispersion for that quarter (σ_{it}), and scale is measured by share price or the level of reported/forecast earnings.[25]

Because predictability and disagreement do not in fact vary with scale, deflating them creates a strong negative correlation with scale. In our sample, the standard deviation (interquartile range) for the distribution of price-deflated forecast errors declines sharply from 12 (1) percent of price for the lowest price decile to 0.32 (0.08) percent for the highest price decile. Similarly, the mean (median) price-deflated dispersion declines from 0.79 (0.32) percent of price for the lowest price decile to 0.07 (0.04) for the highest price decile. This large negative correlation between price and price-deflated measures of predictability and disagreement will bias estimated coefficients using these price-deflated measures as dependent (independent) variables if the included independent (dependent) variables happen to be correlated with price.

To illustrate the potential for such biases, we extend the analyses in Thomas [2002] that relate variation in price-deflated predictability and disagreement to the degree of firm diversification. Our results confirm the presence of substantial biases and suggest the following approach. Avoid deflation by scale, unless it is called for by theory. At a minimum, report results for both scaled and unscaled results, and include the price (inverse of price) as an additional regressor for the unscaled (scaled) variable specification.

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25 Lang and Lundholm [1996, p. 476] deflate forecast dispersion by stock price "to facilitate comparisons across firms." Examples of other studies that deflate forecast dispersion by stock price include Baber and Kang [2002, p. 288], Imhoff and Lobo [1992, p. 431], Thomas [2002, p. 381], Zhang [2006a, p. 110], and Zhang [2006b, p. 570]. Related studies that deflate dispersion by the absolute value of consensus forecast, rather than share price, include Ajinkya et al. [1991, p. 393], Bryan and Tiras [2007, p. 659], DeChow et al. [1996, p. 26], Diether et al. [2002, p. 2118], and Gu and Wu [2003, p. 13].

Although our main objective is to document the two surprising results and the extent of potential bias when scaled predictability and dispersion are used, we recognize that a better understanding of the reasons why we observe the surprising results is important to research on analyst forecasts. Our hypotheses about possible reasons why predictability and dispersion do not vary with scale fall into two categories: a) forecast error variability and forecast dispersion do not vary naturally with scale, and b) they vary naturally with scale, as intuition suggests, but that variation is masked by variation in other factors that also vary with scale but cause predictability and disagreement to shrink with scale.

An example of the first category is that predictability and disagreement may vary not with the level of earnings but with the precision of earnings, which in turn is determined by the precision of revenue and expense forecasts. If low and high price firms have similar precision for revenues and expenses, they may have similar precision for earnings. An example of the second category is that predictability and disagreement might vary with both scale and fundamental uncertainty, but the two effects might cancel each other out if fundamental uncertainty is higher for low price firms.

Our investigation of the different hypothesized reasons failed to identify any strong candidates. We are able, however, to document strong declines in predictability and disagreement around stock splits, and those declines are roughly proportional to the corresponding decline in share price. We investigate stock splits because they represent a natural experiment that provides built-in controls that restrict variation in the other factors that potentially cause reverse variation with scale. This result supports the second category of explanations and the common intuition that predictability and disagreement vary with scale.

The remainder of this paper is organized as follows. The sample and descriptive statistics are described in Section 2, and Section 3 contains our main findings and a summary of robustness tests. Section 4 discusses the results of extending Thomas [2002] to illustrate the potential for biases when predictability and disagreement are deflated by price. Section 5 summarizes our efforts to explain the two surprising findings, and Section 6 concludes.

2. Sample and descriptive statistics

2.1. Sample selection

We include all U.S. firms on the unadjusted I/B/E/S files (with data not adjusted for stock splits) that have fiscal quarters ending in the 14 calendar years from 1993 to 2006. We drop years before 1993 because of concerns about a shift around the early 1990's in the methodology used to compute "actual" EPS as reported by I/B/E/S.[26] For each firm-quarter included we obtain the actual quarterly EPS after adjustment by I/B/E/S for items analysts did not forecast (*IBESACTUAL*), the most recent consensus (mean) forecast EPS (*FORECAST*) and the standard deviation of individual forecasts around that consensus (*DISPERSION*).[27] We also obtain other variables such as the number of analysts issuing forecasts (*COVERAGE*), and the age of individual forecasts as of the date of the consensus forecast. To increase the reliability of consensus forecasts, we delete

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[26] Cohen et al. [2007, p. 272] state that "prior to the early 1990s, I/B/E/S did not always adjust actual earnings to exclude items not forecasted by analysts, thereby creating a mismatch between its actual (realized) and forecasted (expected) earnings." We find, however, that our main findings remain unchanged when we include data from before 1993.

[27] The most recent forecast is typically from the same month as the month of earnings announcement, or the prior month if the earnings announcement has already been made before I/B/E/S' cut off date for that month. In a few cases, we go back up to 90 days before the earnings announcement to find an available consensus forecast.

firm-quarters for which the consensus is based on fewer than three analysts. Finally, we require that stock price (*BEGPRICE*) is available on CRSP as of 90 calendar days before the fiscal quarter end (or the most recent trading day after that date if it is a non-trading day).

Our "full sample" that satisfies these requirements contains 142,726 firm-quarters. We then sort firm-quarters into price deciles each calendar quarter, based on the beginning-of-quarter price (*BEGPRICE*). For our supplementary analyses, we create additional variables, derived from Compustat and CRSP. Details of all variables are provided in the Appendix A. No variables have been Winsorized or truncated, and no sectors have been excluded (except the "Miscellaneous/Undesignated" sector, which contains eight firm-quarters in our sample)[28].

2.2. Summary statistics for sample

Table 1 describes the distribution of sample firm-quarters for each year and sector, where sector groupings are taken from I/B/E/S. The number of observations in each year generally increases through time, though there is a temporary decline in the years 1999 to 2003. All sectors have at least a few thousand firm-quarter observations. The Technology sector has the highest number of observations (28,005), while the Transportation sector has the least (3,397).

Table 2 presents descriptive statistics for several key variables, sorted in alphabetical order, and those results are generally consistent with prior research.[29]

[28] One firm, Berkshire Hathaway (I/B/E/S ticker is BKHT), is deleted from our sample because it had an unusually large forecast error for the quarter ending December 2006 (the forecast error of $406.64 per share arises from an *IBESACTUAL* of $1859 versus a *FORECAST* of $1452.36). This error is so large that it skews some of our descriptive statistics (the next highest forecast error in our sample is below $44).

[29] For example, Abarbanell and Lehavy [2003] also find that the mean forecast error is lower than the median forecast error and that the fraction of positive forecast errors exceeds the fraction of negative forecast errors.

FORECAST distributions in Panel A are similar to those for *IBESACTUAL*, suggesting that consensus forecasts are reasonably accurate. That inference is confirmed by the relatively tight interquartile range (from –1 cent to +3 cents) for forecast errors (*FORECASTERR*) and the relatively small values for absolute values of forecast error (*ABSFE*). The distribution for actual EPS according to Compustat (*COMPACTUAL*) is similar to that for *IBESACTUAL*, except that it is more left-skewed, and the corresponding forecast error (*COMPFE*) distributions are similar to those based on *IBESACTUAL*. Disagreement across analysts, measured by the dispersion of individual forecasts around consensus forecasts (*DISPERSION*) just prior to earnings report dates, is fairly narrow, indicated by mean (median) *DISPERSION* of 3 (2) cents per share.

The mean and median share prices (*BEGPRICE*) for our sample are \$27.1 and \$22.5, implying that the distribution of share prices is right-skewed. The mean number of analysts covering stocks in our sample (*COVERAGE*) is about 7 and the mean and standard deviation of the age of forecasts as of the consensus date is captured by *MEANSTALE* and *SDSTALE*, respectively. We deflate forecast error, absolute forecast errors, and dispersion by share price to generate *DEFLFE, DEFLABSFE*, and *DEFLDISP*, respectively, which are used later to investigate the impact of price deflation by comparing them with *INVBEGPRC*, which is the inverse of beginning share price. *VOL* is a measure of fundamental uncertainty, derived from the standard deviation of daily returns over a prior 200 day window.

Panel B of Table 2 provides Pearson and Spearman correlations between different pairs of these variables. We limit our attention at this stage to a few correlations with share price, and consider some other correlations later. The level of forecasts

(*FORECAST*) and actual earnings (*IBESACTUAL* and *COMPACTUAL*) are strongly positively related to *BEGPRICE*. And yet variability of forecast error, as captured by *ABSFE*, is only weakly positively related to *BEGPRICE*. Similarly, the dispersion of forecasts is also weakly related to share price.[30] More details regarding the variation of *ABSFE* and *DISPERSION* with *BEGPRICE* are explored in the next section. Because *ABSFE* and *DISPERSION* are only weakly related to price, deflating them by price creates a strong negative (positive) relation with *BEGPRICE* (*INVBEGPRC*).[31]

Panel C of Table 2 provides the means and medians for selected variables across different price deciles. The results show considerable variation in share price around the overall mean/median that is reported in the right-most column for purposes of comparison. Mean and median values of *BEGPRICE* for the highest decile are well over ten times those for the lowest decile. This variation in the scale of share price is mirrored in corresponding variation in the magnitudes of consensus EPS forecasts and both measures of actual EPS, since the means and medians reported for *FORECAST*, *IBESACTUAL*, *COMPACTUAL* for decile 10 are over ten times those reported for decile 1.

3. Main findings

As described in Section 1, we believe that the common practice of deflating variability of forecast errors and forecast dispersion by price or level of actual/forecast earnings is based on the intuition that the ability of consensus forecasts to predict reported EPS and the disagreement across analysts when forecasting EPS for a particular

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30 The relatively high Pearson correlation of 0.15 between *DISPERSION* and *BEGPRICE* appears to be due to extreme values because it declines to 0.11 when we Winsorize the extreme 1 percent of the distributions.

31 As mentioned in the prior footnote, the relatively low negative Pearson correlations observed for *DEFLABSFE* and *DEFLDISP* appear to be related to extreme values, since they increase to values close to the Spearman correlations when we Winsorize the extreme 1 percent of observations.

firm-quarter both vary with scale. It appears that price deflation is preferred over deflation by levels of actual or forecast earnings because of the potential for distortion when those levels are close to zero or negative. Regardless of which scaling variable is used, common wisdom is that deflation should improve comparability across shares of different scale.

3.1. Evidence of how predictability and disagreement vary with price

Figure 1 provides a more comprehensive perspective on the relation between prices and variability of forecast errors/dispersion than that provided by the correlations in Panel B of Table 2. Each vertical bar represents the distribution for a particular price decile, and the hash marks identify the location of the mean, median, and 5th, 25th, 75th, and 95th percentiles of the pooled forecast error distribution. Numerical values for the mean, median, standard deviation and interquartile ranges for these distributions are provided in the corresponding panels of Table 3.

The left block of Panel A describes the distribution of forecast errors (*FORECASTERR*) for different price deciles, where forecast errors are measured relative to the actual EPS as reported by I/B/E/S. There is a concern that this proxy for the "core" earnings number that analysts attempt to forecast may be biased in unexpected ways since I/B/E/S adjusts it after observing the price reaction to announced earnings.[32] To alleviate those concerns, the middle block of Panel A describes the distribution of *COMPFE*, forecast errors measured relative to actual EPS as reported by Compustat. The left blocks in Panels B and C provide the distributions for absolute forecast errors

[32] The Wharton Research Data Services (Glushkov [2007, p. 27]) provides the following description: "IBES observes the market reaction to the earnings announcement prior to choosing exactly which earnings components to include in street earnings. This leads to a potential ex post selection bias." Bradshaw and Sloan [2002, p. 42] define street earnings as the "numbers announced by corporations in their press releases and tracked by analyst estimate clearinghouse services, such as I/B/E/S."

(*ABSFE*), an alternative measure of forecast error variability, and dispersion in analyst forecasts around the consensus for each firm-quarter (*DISPERSION*). The right blocks in Panels A, B, and C provide the distributions for *DEFLFE*, *DEFLABSFE* and *DEFLDISP*, which are price-deflated values of forecast errors, absolute forecast errors, and dispersion, respectively.

The main finding from the left block of Figure 1, Panel A, and Panel A1 of Table 3 is that variability of forecast error distributions does not increase substantially with share price. The spread between the 5^{th} and 95^{th} percentiles, the interquartile range, and the standard deviation all suggest a shallow U-shaped relation between the variability of forecast error and share price, with the right end of the U (firms with higher priced shares) being slightly taller than the left end of the U (firms with lower priced shares). To illustrate the surprising absence of scale implied by these results, consider for example the relative lack of variation in the interquartile range across the price deciles. Even though firms in decile 1 are on average considerably smaller in scale than firms in decile 10 (in terms of price and actual and forecast EPS), the interquartile range of 5 cents for decile 1 is quite similar to the 5 cents reported for decile 10. In essence, holding aside systematic variation in forecast biases that are captured by differences in the mean/median forecast error across the ten share price deciles, consensus forecasts are almost equally accurate regardless of whether the EPS being forecasted is only a few cents (for firms in decile 1) or almost a dollar (for firms in decile 10).

The results in the middle block of Figure 1, Panel A, and Panel A2 of Table 3 confirm that the observed lack of scale exhibited by predictability is not sensitive to whether forecast errors are computed using actual EPS according to I/B/E/S or

Compustat. While the measures of variability for *COMPFE* in the middle block of Figure 1, Panel A, and Panel A2 of Table 3 are systematically higher than those for *FORECASTERR*, variation across the price deciles continues to be described by a U-shaped relation, rather than a sharply rising one.

The results reported for absolute forecast errors in the left block of Panel B in Figure 1 and Panel B1 of Table 3 confirm the first finding that variability of forecast errors does not increase much with scale. Mean and median levels of *ABSFE* for deciles 1 (10) are 0.07 (0.09) and 0.02 (0.03), respectively. Note that absolute values overstate true variability when the means/medians are not zero. And since the mean/median forecast errors in Panel A1 of Table 3 indicate a systematic pattern of negative (positive) bias that increases as we go toward lower (higher) price deciles, the absolute values of forecast errors overstate variability of forecast errors, with the degree of overstatement increasing for more extreme price deciles. As a result, we prefer to describe predictability in terms of measures of variability of *FORECASTERR*, such as the standard deviation and interquartile range, rather than mean/median values of *ABSFE*.

Our second finding regarding the lack of scale associated with analyst disagreement is described in the left block of Panel C in Figure 1 and Panel C1 of Table 3. As with *ABSFE*, the focus is not on the spreads of these distributions, but on the means and medians, since the variable (*DISPERSION*) already measures spread across individual forecasts. As with variability of forecast errors, the mean/median level of dispersion exhibits a shallow, asymmetric U-shaped relation, that is taller for high price deciles, rather than the proportional relation expected in prior research. This counterintuitive finding suggests that disagreement across analysts, measured in cents per share, does not vary much across the price deciles even though the level of forecasted EPS varies substantially.

The impact of the common practice of price deflation on these variables is described by the right block in Panels A, B, and C of Figure 1 and Panels A3, B2, and C2 of Table 3. Examining measures of variability for *DEFLFE* and means/medians for *DEFLABSFE* and *DEFLDISP* suggests that price deflation causes variability of forecast errors and forecast dispersion to decline sharply with price. Given the very mild evidence of a positive relation between share price and undeflated variability of forecast errors and forecast dispersion, scaling by price reverses that mild positive relation and creates a strong negative relation with share price or, more correctly, a strong positive relation with the inverse of share price.

3.2. Are the findings robust?

Panels A and B of Figure 2 offer a more detailed look at the distributions of forecast error and dispersion, respectively, to determine whether the distributional statistics reported in Figure 1 mask some unusual aspects. The histograms reported show the fraction of the sample represented by each cent of forecast error and dispersion. For brevity, we only report histograms for three price deciles: deciles 1, 5, and 10, representing low, medium, and high share price firms, respectively. Scrutiny of these histograms reveals interesting patterns, such as a) the frequency of large negative forecast errors (less than – 30 cents per share) is high for both low- and high-price shares, but low for medium-price shares, b) the frequency of large positive forecast errors (greater than 30 cents per share) is high only for high-price shares, consistent with the right-tail asymmetry observed in Figure 1, Panel A, c) the fraction of observations in the "just missed" category (forecast errors of -1 and -2 cents) is substantially lower for high-price shares.[33] The main conclusion, however, is that the underlying distributions described by these histograms support the findings inferred from statistics reported in Figure 1 and Table 3.

We repeated the *FORECASTERR* and *DISPERSION* plots in Figure 1 for each year in our sample period. In addition, we computed the following statistics for each price decile: a) standard deviation/interquartile range for forecast error, and b) mean/median dispersion of each price decile. Our results (untabulated) confirm that the full sample findings regarding predictability and disagreement are observed in most years. We conducted a similar analysis across each of the 11 sectors noted in Table 1. There are interesting patterns in the levels of predictability and disagreement in different sectors. For example, variability of forecast errors (predictability) and mean/median levels of dispersion (disagreement) are considerably lower in the health care and technology sectors, but considerably higher in the transport and utilities sectors. However, all sectors reflect the same general patterns of lack of variation in predictability and disagreement across price deciles that we noted in the full sample. We also confirm that our findings remain qualitatively unchanged when we a) use the median of the individual forecasts each quarter, instead of the mean, to represent the consensus forecast, and b) use absolute values of forecast earnings and per share level of total assets as alternative measures of scale, instead of share price.

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33 Abarbanell and Lehavy [2003, p. 106] define [left] tail asymmetry as "a larger number and a greater magnitude of observations that fall in the extreme negative relative to the extreme positive tail of the forecast error distributions" and middle asymmetry as "a higher incidence of small positive relative to small negative forecast errors in cross-sectional distributions." In our paper, we use the term "right tail asymmetry" to describe "a larger number and a greater magnitude of observations that fall in the extreme positive relative to the extreme negative tail of the forecast error distributions."

As an additional investigation, Appendix B finds that the main analysis of Table 3 changes when we examine non-EPS forecast (forecast of cash flow or sales per share), or when we examine the EPS forecast in countries outside United States. For example, for the sales per share forecast in United States, we see much higher variation with scale. The interquartile range of sales forecast error across the ten price deciles ranges from $0.09 to 0.53, while the median forecast dispersion ranges from $0.03 to $0.23. A stronger variation with scale is also observed for the cash flow forecasts in United States, and for all three types of forecast in many other countries.

4. Replication of Thomas [2002] to illustrate potential biases caused by price deflation

Until we obtain a better understanding of the factors that explain how predictability and disagreement vary with scale, researchers investigating these attributes should exercise caution when deflating by share price. If predictability and disagreement do not vary naturally with scale, price deflation will bias coefficient estimates, as long as other included variables happen to be correlated with share price. And even if both variables vary naturally with scale but that variation is reversed by other effects, scaling by price but not controlling for these effects raises the same concerns about potential biases caused by price deflation.

To illustrate these issues we extend the regressions of price-deflated predictability and dispersion on diversification reported in Thomas [2002], a study that investigates the relation between diversification and information asymmetry between managers and investors. Price-deflated measures of predictability and disagreement are two of many attributes of information asymmetry considered in that study, and diversification is measured by the Herfindahl Index (*HERF*) computed for each firm-year based on segment assets. Our objectives are to determine the extent to which the results of that study change when a) inverse of price is included as an additional regressor, b) predictability and disagreement are not deflated by price, and c) price is added as an additional regressor to the undeflated specifications.

Panel A of Table 4 contains Pearson and Spearman correlations among pairs of key variables from Thomas [2002] as well as other variables we created from the underlying data. To avoid confusion with similar variables used earlier, we choose our own labels for these variables. The dependent variables in the regressions estimated in Thomas [2002] are labeled *DEFLATAFE* and *DEFLATDISP*, which are price-deflated values of absolute forecast errors and forecast dispersion, where deflation is based on share price five days before the annual earnings announcement (*PRICE5*). We focus here only on two of the regressors, *HERF* and *RESIDVOL* considered in the different equations. *HERF*, which measures diversification, varies between 0 and 1, with lower values representing greater diversification across different segments. *RESIDVOL*, which measures the standard deviation of market model residuals, is included in the final specification in Thomas [2002] to control for potential relations between idiosyncratic volatility and predictability/dispersion. The variables we introduce are undeflated absolute forecast errors (*AFE*), dispersion (*DISP*), and the inverse of share price (*INVPRICE5*).[34] Key correlations are introduced where relevant in the discussion below.

Panels B and C of Table 4 contain the results of extending the analyses in Tables 3 and 4 of Thomas [2002], which explain variation in price-scaled absolute forecast error

[34] *AFE* is similar to *ABSFE* except that the consensus forecast is the median not the mean forecast for each firm-quarter, *PRICE5* the share price used for deflation is similar to *BEGPRICE* except that it is based on share price five days before the earnings announcement rather than beginning-of-quarter share price, and *RESIDVOL* is similar to *VOL* except that it focuses on idiosyncratic not total return volatility.

and dispersion, respectively. Specification I refers to the original results and equations (1) through (5), reported in the columns, refer to the corresponding equations estimated in the original paper. The main finding from the results for specification I in both panels that is relevant for our purposes is that the coefficient on *HERF* is positive and significant in equations (1) through (4), but that relation switches to a negative and significant coefficient in equation (5), when volatility is introduced. That is, lower diversification (larger *HERF*) is associated with higher variability of forecast errors and forecast dispersion, but that relation reverses when a control for idiosyncratic volatility is introduced in equation (5). Recall that the dependent variables in both panels are deflated by share price.

Specification II considers the impact of introducing the inverse of share price as an additional regressor. This extension would be appropriate if theory called for measures of predictability and disagreement to be scaled by share price, but there remained a concern whether that deflation might induce a spurious correlation with variables that are related to price. Panel A of Table 4 indicates that price-deflated absolute forecast errors and dispersion are strongly positively related to the inverse of price. Introducing the inverse of share price offers a simple way to mitigate such a concern. The main result in specification II for both panels B and C is that including *INVPRICE5* to the right hand side eliminates all of the significant positive coefficients on *HERF* observed in the original results for equations (1) through (4). These results can be anticipated by the negative correlation between *HERF* and price in Panel A of Table 4. And the lower coefficient on *RESIDVOL*, relative to that in specification I, is likely related to the positive correlation between volatility and inverse of price.

Specification III is similar to the original specification, but the dependent variables are no longer deflated by price. As with specification II, no significant positive coefficients are observed on *HERF* in either Panel B or C. These results suggest that the significant positive coefficients observed on *HERF* for equations (1) through (4) in the original specification are likely due to the negative correlation between *HERF* and share price, which then induces a positive correlation between *HERF* and the price-deflated dependent variables. Introducing a variable that is related to share price, such as *RESIDVOL* in equation (5), as an additional regressor controls for this correlation between *HERF* and the price-deflated variables.

Specification IV adds share price as an additional regressor to specification III to control for the small positive relations observed between share price and undeflated measures of predictability and disagreement (caused by the right end of the U-shaped relation, for firms with high-price shares, being slightly taller than the left end). Panel A of Table 4 confirms that *AFE* and *DISP* are positively related to share price. Observing a positive coefficient on *PRICE5*, that is especially significant in Panel C, illustrates the importance of controlling for the small residual positive relation with share price that is observed for undeflated measures of predictability and disagreement.

In sum, the results generated by extending the analyses in Thomas [2002] suggest the following implications for research that employs measures of predictability and disagreement.[35] First, unless called for by theory, these measures should either not be deflated or both sets of results based on deflated and undeflated measures should be

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[35] The conclusions reached in Thomas [2002] are ultimately supported in analysis conducted on alternative measures of asymmetric information that are not subject to the scaling issues investigated in the present paper, i.e., abnormal returns to seasoned equity offerings (Hadlock et al. [2001]) and market microstructure metrics (Clarke et al. [2004]).

reported. Second, if deflated measures are used, it is important to include the inverse of price as an additional regressor, to confirm that the coefficients are not biased because of the strong negative relation between deflated measures and share price. Third, even if undeflated measures are used, it is important to include price as an additional regressor, to mitigate any bias due to the small positive relation between undeflated measures and share price.

5. Why do predictability and disagreement not vary with scale?

We believe that research on analyst forecasts will benefit from understanding why we find that predictability and disagreement do not vary with scale. Even though developing such an understanding lies beyond the scope of this paper, we share below the results of our efforts to probe this question. Hopefully, future research will build on our early efforts.

We considered a number of possible reasons why predictability and disagreement do not vary with scale. These potential explanations fall into two general categories. First, predictability and disagreement do not naturally vary with share price. This position seems unintuitive since the levels of both forecast and actual EPS clearly vary with scale. And we are unable to find evidence consistent with the reasons we generated to explain why the difference between actual and forecast EPS and disagreement among analysts in their forecasts would not also vary with scale.[36] To be sure, it is quite possible that

[36] For example, we investigated whether the precision of earnings forecasts depends on the precision of revenue and expense forecasts, which in turn depend on the levels of revenues and expenses, not on the level of earnings. Take two firms that have similar levels of revenues, but the first (second) firm has expenses equal to 80% (90%) of revenues. Even though the first firm has twice the earnings of the second, the precision of earnings forecasts would be reasonably similar if it was derived from the precision of revenue and expense forecasts. If large and small earnings numbers, and by implication large and small prices, arise because expenses are relatively smaller and larger but revenues are reasonably similar across firms in the different price deciles, then predictability and disagreement could be similar across high and

additional investigation might uncover some possible reasons that are supported by the evidence.

The second possibility is that predictability and disagreement do in fact vary naturally with scale, but other factors cause that variation to be reversed on average. Of the many factors we considered, three seemed initially promising. First, fundamental uncertainty in earnings and forecasts, as determined by firm choices relating to issues such as operating and financial leverage, is positively related to the variability of forecast errors and forecast dispersion but is negatively related to share price. Second, firms with high-price shares may be associated with greater incentives for managers to guide analysts, greater incentives for analysts to revise forecasts, and greater incentives for I/B/E/S to adjust actual EPS accurately for items that analysts did not seek to forecast.

Our results, however, do not provide strong support for any of the different hypotheses. We are, however, able to provide clear evidence that is consistent with the second category of explanations when we consider how predictability and disagreement vary around stock splits. By holding the firm constant, we seek to limit variation across the factors that might potentially reverse the effects of any natural variation with scale. The results described below suggest that predictability and disagreement decline after stock splits, and that decline is proportionate to the corresponding price declines.

Panels A and B of Figure 3 compare the distributions for forecast errors and forecast dispersion, respectively, from four quarters before to four quarters after stock splits of different magnitudes. Panels A and B of Table 5 provide key measures of central tendency and variability for the corresponding distributions. Of the four most common

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low price firms. Our results, however, indicate that high price firms have considerably larger values for sales (and expense) per share than low price firms.

types of splits represented in our sample, a "2-for-1" stock split is the most frequent (1,341 instances) and the "3-for-1" split is the least frequent (76 instances).[37] Our results suggest that the variability of forecast errors (represented by measures such as the standard deviation and interquartile range) and the mean/median level of dispersion do indeed appear to decline substantially after the split. To be sure, the declines are not always proportionate to the split, for example, in the case of the "3-for-2" split one of the measures of variability (standard deviation) actually increases after the split.[38] However, many of the changes around stock splits are so strongly proportional to the corresponding price changes that we view this evidence as suggesting that forecast dispersion and variability of forecast error do indeed vary naturally with price. Presumably, that variation is not observed in aggregate data because it is reversed by other factors that also vary with price.

We also consider similar analyses based on the quarter just before and after the split (results available upon request). Our results again confirm that splits are associated with substantial declines in measures of forecast error variability and disagreement, proportional to the splits that occurred. We do note, however, considerable negative (positive) skewness for the post-split forecast error (dispersion) distributions. That is, immediately after the split we see many more negative forecast errors and many more forecasts that are higher than the median. Since this combination of negative and positive skewness is consistent with some pre-split individual analyst forecasts not being

[37] We did not include reverse splits and other stock splits because of the smaller sample sizes obtained (less than 50 firm-quarters in each case).

[38] One reason why the decline in the two measures is not exactly proportional to the split is that the measures are rounded to the nearest cent. Also, it is possible that underlying uncertainty increases after a split, which is then reflected in slightly less predictable earnings and slightly higher disagreement among analysts.

immediately adjusted for the split, we believe the results based on 4 quarters before and after the split are more meaningful.[39]

6. Concluding Remarks

In this paper, we document surprising empirical findings related to two aspects of analyst forecasts: a) predictability of reported EPS, measured by variability of forecast errors, and b) disagreement across analysts' EPS forecasts, measured by dispersion of forecasts around the consensus forecast. Prior research has relied on the intuition that predictability and disagreement should vary proportionately with scale, typically proxied by share price. We agree that this is a reasonable presumption since levels of both actual and forecast EPS, which are the variables underlying predictability and disagreement, vary with scale. However, contrary to these expectations, we find that measures of variability of forecast errors as well as dispersion of individual forecasts around the consensus do not vary much with share price.

We believe that explanations for the gap between the common intuition and our findings can be viewed as either being focused on explaining why variability and disagreement do not vary naturally with scale, or on explaining why natural variation with scale for both constructs is reversed on average by other factors that also vary with scale. We provide evidence consistent with the second explanation, by showing that predictability and disagreement decline proportionately after stock splits. However, we believe that there is considerable understanding yet to be gained about the factors that determine variation in predictability and disagreement.

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39 Note that the ± 4 quarter analysis is biased against observing proportional declines in predictability and disagreement because prices tend to rise substantially during the four quarters before the split and continue to rise, albeit to a smaller extent, during the four quarters after the split. Therefore the ratio of stock prices from four quarters before to four quarters after the split is less than that implied by the split.

Until progress is made on gaining that understanding, we believe that price deflation of these two variables be undertaken with caution. The observed lack of variation between price and undeflated measures of predictability/disagreement turns into a strong negative relation when these two constructs are deflated by price. As a result, there is considerable potential for biased coefficients, and researchers are encouraged to a) check whether the coefficients on variables of interest are robust to the use of deflated and undeflated measures of predictability/disagreement, and b) include price or inverse of price as an additional regressor where appropriate.

Appendix A
Variable definitions and sources

(Quarterly Compustat data items are provided in parentheses under Description)

Label	Description	Source
ABSFE (in dollars)	Absolute value of *FORECASTERR*	
BEGPRICE (in dollars)	Share price of firm at the beginning of quarter.	I/B/E/S Summary Actuals + Pricing unadjusted file (WRDS file name is ibes.actpsumu).
COMPACTUAL (in dollars)	Actual quarterly basic EPS as reported by Compustat, excluding extraordinary income and the after-tax effect of special items. *COMPACTUAL* = [#EPSPXQ – (1-tax)*(# SPIQ)/(#CSHPRQ)] / DilutionFactor. Scaling by DilutionFactor is necessary as *FORECAST* can be on a basic or diluted basis.	CRSP/COMPUSTAT Merged - Combined Industrial Quarterly file (WRDS filename is comp.fundq).[a] Tax rate is obtained from IRS: http://www.irs.gov/pub/irs-soi/02corate.pdf. DilutionFactor is obtained from I/B/E/S (WRDS filename is ibes.idsum).
COMPFE (in dollars)	*COMPACTUAL - FORECAST*	
COVERAGE (unit-free)	Number of estimates that constitute *FORECAST.*	I/B/E/S Unadjusted Summary Data (WRDS filename is ibes.statsumu).
DEFLABSFE	*ABSFE / BEGPRICE*	
DEFLDISP (unit-free)	*DISPERSION / BEGPRICE*	
DEFLFE (unit-free)	*FORECASTERR / BEGPRICE*	
DISPERSION (in dollars)	Standard deviation of the individual analyst's EPS forecast that constitute *FORECAST.*	I/B/E/S Unadjusted Summary Data (WRDS filename is ibes.statsumu).
FORECAST (in dollars)	Most recent consensus (mean) estimate of *IBESACTUAL* for the firm-quarter.	I/B/E/S Unadjusted Summary Data (WRDS filename is ibes.statsumu).
FORECASTERR (in dollars)	*IBESACTUAL – FORECAST*	

IBESACTUAL (in dollars)	Actual quarterly EPS as reported by I/B/E/S, after I/B/E/S has adjusted it "for comparability with estimates."	I/B/E/S Unadjusted Actuals Data (WRDS filename is ibes.actu).
INVBEGPRC (in 1/dollar)	Inverse of *BEGPRICE*	
MEANSTALE (in days)	The *mean* forecast age of (*effective*) individual forecast, measured between the issue date of the individual forecast and the date of the consensus forecast. What constitutes "*effective*" is explained in http://wrds.wharton.upenn.edu/ds/ibes/lib/IBES_Summary_from_Detail.pdf	I/B/E/S Unadjusted Detail Data (WRDS filename is ibes.detu).
SDSTALE (in days)	The standard deviation of (effective) individual forecast age. See description for *MEANSTALE*.	I/B/E/S Unadjusted Detail Data (WRDS filename is ibes.detu).
VOL	Standard deviation of stock returns over the period from day -210 to -11, relative to the fiscal quarter-end.	CRSP daily file (WRDS file name is crsp.dsf).

Appendix B

Forecast error and forecast dispersion in other countries and for other measures

This Appendix extends the main analysis of Table 3 to other countries and measures (i.e., forecast of cash flow per share, earnings per share, and sales per share). Given that there are few quarterly forecasts made for non-U.S. countries, we focus on annual forecasts. We select all country-firm-years from 1993 to 2006, with consensus forecasts made by at least three analysts. Countries with less than 100 forecasts (across all measures) are not listed below. "Countries" are aggregated and listed below based on their currency codes. For example, firms in mainland China whose forecasts are in Hong Kong dollars (HKD) are aggregated with other firms in Hong Kong. However, countries in the European monetary union (with forecasts denominated in Euros) are listed separately (e.g., France and Germany).

Curcode	Measure	Stats	Variable	1	2	3	4	5	6	7	8	9	10
ATS	CPS	Median	BEGPRICE	172	361	440	585	660	788	923	1317	1815	3223
		Median	IBESACTUAL	35	79.5	89	161	85	138	163	167	219.5	427.5
		QRange	T4IBESACTUAL	25.03	64	26.4	54	33.2	33.65	99	83	92.01	174
		QRange	FORECASTERR	11	15.35	12.1	36	29.29	17.4	45.53	36.6	30.9	86.8
		Median	DISPERSION	10.5	9.85	11.62	20.3	22	11.95	19.55	16.07	28.54	44
		N	IBESACTUAL	13	16	17	13	11	18	13	16	18	10
	EPS	Median	BEGPRICE	186.5	358	443.5	585	650	764	890	1215.5	1815	3095
		Median	IBESACTUAL	8	22	25	37	27	46	51	73.5	83.5	102.4
		QRange	T4IBESACTUAL	11.35	26	39.97	7	12	26.3	23.53	42	48	118.6
		QRange	FORECASTERR	12.1	3.2	7.89	5.7	14.3	14.6	8	15.4	11	30.1
		Median	DISPERSION	3.8	2.1	2.75	4.2	4.2	6.4	7.4	4.65	9.15	12.9
		N	IBESACTUAL	16	20	20	21	19	21	21	20	20	19
	SAL	Median	BEGPRICE	164	339	.	495	579	820	809	993	1540	2073
		Median	IBESACTUAL	1140.17	955.12	.	939.2	874.75	629	1553.27	1763.65	598	2597.37
		QRange	T4IBESACTUAL	.	.	.	.	.	.	.	.	0	.
		QRange	FORECASTERR	0	0	.	0	0	0	0	258	276.45	1758.47
		Median	DISPERSION	77.64	195.28	.	104.65	192.03	23.8	76.97	101.53	111.9	329.49
		N	IBESACTUAL	1	1	.	1	1	1	1	2	3	2
AUD	CPS	Median	BEGPRICE	0.6	1.1	1.4	2	2.5	3.1	4	5.4	8.1	17.2
		Median	IBESACTUAL	0.06	0.12	0.16	0.18	0.22	0.3	0.39	0.51	0.78	1.33

		QRange	T4IBESACTUAL	0.1	0.1	0.08	0.17	0.13	0.17	0.21	0.23	0.44	0.73
		QRange	FORECASTERR	0.06	0.06	0.06	0.09	0.09	0.11	0.12	0.17	0.23	0.44
		Median	DISPERSION	0.02	0.03	0.03	0.04	0.05	0.06	0.07	0.08	0.12	0.22
		N	IBESACTUAL	208	210	229	236	230	236	235	242	230	232
	EPS	Median	BEGPRICE	0.7	1.1	1.5	2	2.5	3.1	4	5.3	7.7	17
		Median	IBESACTUAL	0.04	0.08	0.11	0.14	0.17	0.2	0.25	0.32	0.47	0.87
		QRange	T4IBESACTUAL	0.06	0.05	0.04	0.06	0.05	0.07	0.08	0.11	0.14	0.25
		QRange	FORECASTERR	0.02	0.01	0.01	0.02	0.02	0.02	0.02	0.03	0.03	0.06
		Median	DISPERSION	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.04
		N	IBESACTUAL	298	304	313	301	306	310	309	310	309	301
	SAL	Median	BEGPRICE	0.6	1.1	1.4	1.9	2.5	3.1	4	5.4	8.4	18.3
		Median	IBESACTUAL	0.52	0.72	0.99	1.54	1.95	2.52	2.91	3.82	5.7	9.47
		QRange	T4IBESACTUAL	0.15	0.2	0.26	0.42	0.45	0.44	0.64	0.68	1.27	2.59
		QRange	FORECASTERR	0.06	0.05	0.07	0.11	0.13	0.18	0.16	0.18	0.37	0.88
		Median	DISPERSION	0.04	0.03	0.04	0.06	0.09	0.09	0.1	0.13	0.21	0.49
		N	IBESACTUAL	191	206	211	214	211	228	231	222	225	216
BEF	CPS	Median	BEGPRICE	604	1285	1750	2307.5	3020	3895	5590	8400	12237.5	24900
		Median	IBESACTUAL	121.5	250.5	250	319.5	339.5	548	897	1616	2064.5	4993
		QRange	T4IBESACTUAL	54	50	232	97.5	110.51	194	525	356	682.99	325
		QRange	FORECASTERR	35.55	58	39.76	54	61	61.39	181.73	296	314	504
		Median	DISPERSION	23	30.67	26.31	32.08	39.8	57	122.44	134	210	450
		N	IBESACTUAL	16	14	15	18	18	17	13	17	18	13
	EPS	Median	BEGPRICE	648	1322	1762.5	2307.5	2970	3895	5420	8220	12475	25150
		Median	IBESACTUAL	19	82.1	92	143.84	178	193.83	452.5	779.5	852.9	1308.24
		QRange	T4IBESACTUAL	38.23	69.79	82	38.72	38	51.17	145	230.38	138.6	762.81
		QRange	FORECASTERR	14.41	34	40	25.28	33	15	40.25	56	106.9	205
		Median	DISPERSION	12	15	15.5	17	29	17	20.5	42.5	76	183
		N	IBESACTUAL	17	18	18	20	19	17	20	18	19	16
	SAL	Median	BEGPRICE	175	1222	.	2095	2560	3555	4165	7310	12000	25400
		Median	IBESACTUAL	2890.18	7973.12	.	5808.19	9470.41	15970.9	539.03	4071.27	24736.1	32689.6
		QRange	T4IBESACTUAL	.	.	.	.	.	.	.	.	.	.
		QRange	FORECASTERR	0	0	.	0	0	523.43	0	0	11145.9	23960.8
		Median	DISPERSION	1844.88	142.06	.	65.83	443.49	367.36	94.21	24.72	234.77	187.2

		N	IBESACTUAL	1	1	.	1	1	2	1	1	3	3
BPN	CPS	Median	BEGPRICE	51.5	100.5	143.1	185	238.4	293.8	378	484.4	633.5	995.8
		Median	IBESACTUAL	6.79	12.23	17.1	20.45	27.52	30.04	36.5	48.26	54.1	70.55
		QRange	T4IBESACTUAL	6.57	7.48	10.2	10.93	16.27	14.1	16.27	19.32	24.07	40.65
		QRange	FORECASTERR	4.07	6.51	6.87	8.6	10.97	10.75	14.37	14.89	19.74	22.93
		Median	DISPERSION	1.76	2.81	3.33	3.6	4.5	4.9	5.46	7	7.85	10.57
		N	IBESACTUAL	309	331	364	417	412	444	462	476	497	482
	EPS	Median	BEGPRICE	48.6	98.8	140	181	230.8	286	370.3	470	611.5	937
		Median	IBESACTUAL	2.8	7.03	10.01	12.52	15.9	20.1	23.37	31.1	38.2	51.81
		QRange	T4IBESACTUAL	2.94	3.85	4.98	4.6	5.29	4.71	6.23	6.69	8.17	16.18
		QRange	FORECASTERR	1.22	1.26	1.34	1.28	1.54	1.64	1.91	2.25	2.53	3.66
		Median	DISPERSION	0.47	0.59	0.71	0.69	0.83	0.84	1.03	1.33	1.62	2.23
		N	IBESACTUAL	732	737	732	740	743	734	744	746	755	745
	SAL	Median	BEGPRICE	52	100.5	145.5	194.5	251	306.3	390	501.5	657.5	1026.5
		Median	IBESACTUAL	0.96	1.59	2.02	2.52	2.75	2.92	3.39	4.04	3.81	5.01
		QRange	T4IBESACTUAL	0.24	0.27	0.32	0.43	0.53	0.48	0.59	0.64	0.73	1.05
		QRange	FORECASTERR	0.06	0.1	0.1	0.13	0.15	0.15	0.18	0.2	0.21	0.3
		Median	DISPERSION	0.03	0.05	0.06	0.07	0.07	0.08	0.1	0.12	0.12	0.15
		N	IBESACTUAL	376	401	426	441	439	454	449	446	473	403
BRL	CPS	Median	BEGPRICE	1.4	4.5	13.1	15.2	42	82.3	271.5	514	4660	36000
		Median	IBESACTUAL	0.49	1.08	4.72	7.55	12	24.24	141.16	128.26	1259.9	6975.94
		QRange	T4IBESACTUAL	.	24.42	2.74	.	5.56	33.97	0	6.23	0	13770
		QRange	FORECASTERR	0.55	0.56	3.68	5.79	24.25	15.58	126.96	37.76	4138.61	9069.26
		Median	DISPERSION	0.11	0.57	0.61	4.6	8.52	7.67	16.45	70	240	1840.51
		N	IBESACTUAL	3	8	11	7	11	10	8	9	5	7
	EPS	Median	BEGPRICE	1.5	6.3	13.5	27.5	47.7	96.6	240	855	3440	17800
		Median	IBESACTUAL	0.18	0.54	1.57	3.01	3.3	10.37	21.57	197.88	456.81	1240.9
		QRange	T4IBESACTUAL	0.82	0.48	6.78	7.17	20.4	25.75	75.34	130.31	819.71	2577.25
		QRange	FORECASTERR	0.16	0.36	1.54	3.85	5.56	9.46	20.18	56.91	352.51	423.33
		Median	DISPERSION	0.13	0.19	0.6	1.22	2.14	6.94	10.92	42.27	140.22	285.5
		N	IBESACTUAL	29	34	41	39	33	40	37	40	39	33
	SAL	Median	BEGPRICE	1.9	6	13.3	27.1	46.3	113.5	258	1000	4815	26500
		Median	IBESACTUAL	2.73	5.17	40.9	42.97	71.18	138.17	333.23	2015.9	11544.4	17941.3

		QRange	T4IBESACTUAL	0.77	1.55	36.65	14.57	13.92	33.81	55.99	866.47	4493.35	10163.5
		QRange	FORECASTERR	0.58	0.76	11.47	6.83	9.62	89.86	174.45	548.17	2382.16	6855.25
		Median	DISPERSION	0.19	0.62	2.52	4.94	6.89	17.04	22.2	221.71	663.04	1239.22
		N	IBESACTUAL	30	35	34	37	37	40	37	35	34	31
CAD	CPS	Median	BEGPRICE	1.8	3.7	6	8.6	11.6	14.6	18.3	24.5	31.5	47.9
		Median	IBESACTUAL	0.32	0.62	0.91	1.17	1.49	1.83	2.26	2.75	3.53	5.07
		QRange	T4IBESACTUAL	0.31	0.47	0.56	0.56	0.6	0.63	1.01	1.24	1.21	2.61
		QRange	FORECASTERR	0.06	0.12	0.13	0.16	0.21	0.18	0.36	0.34	0.34	0.61
		Median	DISPERSION	0.04	0.07	0.07	0.1	0.11	0.11	0.15	0.21	0.27	0.32
		N	IBESACTUAL	155	161	151	147	180	169	155	149	142	166
	EPS	Median	BEGPRICE	1.8	3.8	5.9	8.6	11.5	14.8	18.7	24.2	31.7	47.9
		Median	IBESACTUAL	0.02	0.13	0.22	0.44	0.62	0.77	1.05	1.38	1.78	2.68
		QRange	T4IBESACTUAL	0.32	0.36	0.4	0.48	0.46	0.53	0.59	0.59	0.71	1.21
		QRange	FORECASTERR	0.07	0.09	0.1	0.13	0.13	0.13	0.14	0.14	0.14	0.15
		Median	DISPERSION	0.03	0.04	0.05	0.05	0.05	0.06	0.06	0.07	0.07	0.11
		N	IBESACTUAL	384	418	403	412	403	426	425	414	424	410
	SAL	Median	BEGPRICE	1.3	3.1	5.2	7.6	11	14.7	19.7	25.3	35	55
		Median	IBESACTUAL	0.62	1.08	3.13	5.15	6.35	12.13	13.34	18.63	23.95	25.66
		QRange	T4IBESACTUAL	0.34	0.51	0.84	1.3	2.09	2.58	2.43	4.05	6.29	11.46
		QRange	FORECASTERR	0.06	0.1	0.21	0.31	0.42	0.53	0.51	0.52	1.04	1.09
		Median	DISPERSION	0.02	0.03	0.11	0.08	0.19	0.26	0.24	0.29	0.48	0.57
		N	IBESACTUAL	100	113	116	123	119	147	143	142	136	144
CHF	CPS	Median	BEGPRICE	37	206.5	360	462.5	600	800	950	1315	1895	4224
		Median	IBESACTUAL	5.79	11.91	26.1	44.18	33.57	75	70.5	81.07	99.25	186
		QRange	T4IBESACTUAL	4.75	5.41	15.19	15.09	22.29	23.26	51.46	31.37	61.36	112.29
		QRange	FORECASTERR	2.69	3.56	11.08	11.03	14.78	15.32	21.03	18.88	27.86	78.08
		Median	DISPERSION	1.06	2.05	3.05	4.95	6.33	7.82	9.34	10	14	27.95
		N	IBESACTUAL	89	102	109	102	97	97	99	109	105	104
	EPS	Median	BEGPRICE	96	230	360.5	500.5	631	803.5	1065	1440	2115	4249
		Median	IBESACTUAL	1.58	8.93	19.39	22.04	30.5	37.21	37.22	60.3	71.75	128
		QRange	T4IBESACTUAL	7.59	5.43	8.59	13.15	17.9	23.09	29.77	31.66	63.26	130.1
		QRange	FORECASTERR	1.47	1.97	2.25	3.93	5.71	6.46	8.63	5.44	7.53	16.29
		Median	DISPERSION	0.8	1.21	1.41	2.63	3.61	3.75	4.49	4.37	5.61	12.23

		N	IBESACTUAL	145	160	157	160	143	152	155	157	156	143
	SAL	Median	BEGPRICE	33.1	140	324	443	570	745	893	1250	1841.5	3810
		Median	IBESACTUAL	50.64	123.58	205.57	280	372.34	629.76	750.76	962.51	875.59	1811.3
		QRange	T4IBESACTUAL	13.54	20.84	48.93	37.47	75.6	122.81	207.9	185.27	410.77	772.68
		QRange	FORECASTERR	3.17	4.87	5.97	6.18	20.05	37.72	35.81	38.77	39.58	86.73
		Median	DISPERSION	2.75	4.33	4.64	6.4	11.5	19.17	36.57	28.74	27.65	49.86
		N	IBESACTUAL	98	103	108	111	103	112	108	107	108	103
CLP	CPS	Median	BEGPRICE	18.5	106.1	150	227	280.5	620	920	1700	2275	7982.5
		Median	IBESACTUAL	0.9	7.95	13.3	56.1	17.37	405.55	66.2	206.87	164.43	572.73
		QRange	T4IBESACTUAL	0.22	.	0	0	13.7	.	16.58	109.74	85.93	0
		QRange	FORECASTERR	0.5	2.33	0	0	5.71	0	9.04	36.06	166.79	225.77
		Median	DISPERSION	0.46	0.44	1.94	19.33	4.48	9.7	18.6	34.69	23.76	102.15
		N	IBESACTUAL	3	3	1	1	4	1	2	5	7	2
	EPS	Median	BEGPRICE	6.9	83.8	151.5	218.5	280.5	567.5	1100	1750	2327.5	6501
		Median	IBESACTUAL	0.48	3.8	17.82	10.55	16.06	33.12	61.38	98.91	146.36	604.58
		QRange	T4IBESACTUAL	0.58	1.5	5.19	17.02	9.2	21.1	29.94	45.85	48.42	259.69
		QRange	FORECASTERR	0.12	0.81	2.14	6.37	3.24	9.65	9.37	27.35	24.18	75.12
		Median	DISPERSION	0.09	0.23	0.98	1.06	1.96	3.75	5.62	15.65	13	29.58
		N	IBESACTUAL	6	6	8	7	8	6	8	7	8	7
CNY	CPS	Median	BEGPRICE	1.4	1.8	1.9	2.1	2.5	2.7	3	4.1	5.9	12.3
		Median	IBESACTUAL	0.19	0.26	0.3	0.36	0.34	0.41	0.47	0.56	0.69	0.64
		QRange	T4IBESACTUAL	0.32	0.17	0.28	0.21	0.29	0.32	0.29	0.2	0.62	1.04
		QRange	FORECASTERR	0.27	0.27	0.19	0.16	0.13	0.18	0.27	0.3	0.3	0.75
		Median	DISPERSION	0.07	0.07	0.05	0.07	0.07	0.08	0.09	0.08	0.2	0.15
		N	IBESACTUAL	42	47	47	50	50	44	40	41	42	43
	EPS	Median	BEGPRICE	1.3	1.6	3.2	2.2	2.6	2.7	3.3	4.4	6.2	14.5
		Median	IBESACTUAL	0.04	0.16	0.18	0.22	0.29	0.31	0.33	0.42	0.49	0.65
		QRange	T4IBESACTUAL	0.15	0.11	0.11	0.16	0.11	0.14	0.12	0.17	0.19	0.33
		QRange	FORECASTERR	0.07	0.05	0.06	0.04	0.05	0.05	0.08	0.07	0.07	0.13
		Median	DISPERSION	0.02	0.03	0.02	0.03	0.03	0.03	0.04	0.03	0.05	0.07
		N	IBESACTUAL	75	82	78	79	82	80	80	79	82	74
	SAL	Median	BEGPRICE	1.4	2.6	3.2	3.9	5.2	5.9	6.8	8.5	10.4	15.2
		Median	IBESACTUAL	6.71	5.88	5.99	6.1	5.58	4.26	6.44	6.96	6.5	11.22

		QRange	T4IBESACTUAL	2.7	1.7	3.3	3.36	1.59	1.16	1.8	4.61	3.81	5.77
		QRange	FORECASTERR	0.72	0.52	0.57	0.51	0.34	0.41	0.46	1.03	0.84	1.54
		Median	DISPERSION	0.36	0.31	0.41	0.27	0.32	0.19	0.22	0.21	0.34	0.71
		N	IBESACTUAL	56	55	58	62	63	60	57	59	60	59
DEM	CPS	Median	BEGPRICE	139.5	219	260.5	325	372	430	524.2	627	779.5	1084
		Median	IBESACTUAL	12.51	25	35	49	50	60.31	82	80	81.92	107
		QRange	T4IBESACTUAL	28.59	30.4	43.02	29	20.5	21.28	35	26	78.19	44.84
		QRange	FORECASTERR	9.02	6.53	8.6	12.2	8.38	6.2	12.36	7.77	12.11	11.8
		Median	DISPERSION	8.1	7	7	8	6.91	6.15	7.76	8.7	10.9	11
		N	IBESACTUAL	44	43	45	43	44	37	42	43	48	33
	EPS	Median	BEGPRICE	74.9	150.5	214.5	264.1	330.4	375	420	519	662.3	1137.5
		Median	IBESACTUAL	1.13	2.4	2.7	4.65	8.33	16.2	19.65	25.75	21.03	40.72
		QRange	T4IBESACTUAL	11.14	8.31	9.2	11.33	11.32	11.3	14	15.5	23.61	29.74
		QRange	FORECASTERR	2.3	2.11	3.25	3.45	3.66	3.7	3.94	5.8	10.71	9.8
		Median	DISPERSION	1.6	1.3	1.9	2.1	2.1	1.9	2.3	2.2	2.95	3.7
		N	IBESACTUAL	99	103	103	101	102	103	102	102	102	98
	SAL	Median	BEGPRICE	34.1	59	111.5	184.5	227.5	278	410.6	477	623	1049.5
		Median	IBESACTUAL	94.92	116.94	97.99	73.91	364	559.36	113.72	942.47	308.8	583.23
		QRange	T4IBESACTUAL	.	.	1.63	66.27	0	.	.	0	0	0
		QRange	FORECASTERR	4.46	1.99	1.89	86.47	543.84	66.52	1.33	52.67	15.87	47.77
		Median	DISPERSION	6.61	2.72	1.37	13.22	9.92	2.36	4.88	31.83	13.78	1.94
		N	IBESACTUAL	5	9	6	6	9	3	6	11	13	9
DKK	CPS	Median	BEGPRICE	82.3	153.3	248	300.8	344.3	393.5	520	680.4	860	3455
		Median	IBESACTUAL	9.62	16.41	27.18	31.19	36.41	43.44	34.7	58.95	49.64	278
		QRange	T4IBESACTUAL	8.75	9.05	15.51	16.88	12.51	13.99	16.43	34.27	39.39	217.92
		QRange	FORECASTERR	3.66	8.06	8.97	6.96	9.31	8.41	13.77	18.15	18.35	89.64
		Median	DISPERSION	2.39	2.62	3.53	3.9	4.84	5.79	4.8	7.17	9.61	33.2
		N	IBESACTUAL	40	44	42	48	52	50	51	44	51	56
	EPS	Median	BEGPRICE	99	188	246	306.5	360	464.3	575.3	721.5	1015	2892.8
		Median	IBESACTUAL	5.2	11.15	15.7	17.07	23.29	21.3	23.7	36.33	42.5	134.03
		QRange	T4IBESACTUAL	9.5	10.54	15.59	11.1	10.15	14.91	18.05	25.1	39.37	118.33
		QRange	FORECASTERR	3.66	3.98	5.42	5.41	3.54	5.53	5.71	7.99	5.41	23.18
		Median	DISPERSION	1.54	1.79	2.51	2.81	2.39	3.52	3.87	3.3	5.04	10.59

		N	IBESACTUAL	75	84	79	81	80	81	78	80	84	77
	SAL	Median	BEGPRICE	81.8	139	198.2	250	316	357.5	443.2	560	810	2000
		Median	IBESACTUAL	125.93	230.97	341.07	278.2	311.86	321.69	529.59	518.43	619.77	1700.52
		QRange	T4IBESACTUAL	29.77	18.07	63.35	67.85	65.57	66.64	120.98	144.73	424.93	1217.14
		QRange	FORECASTERR	7.53	6.92	13.4	19.65	19.98	11.05	17.44	21.8	21.26	225.4
		Median	DISPERSION	3.58	5.61	6.62	11.56	8.22	11.07	14.92	17.39	16.87	102.44
		N	IBESACTUAL	48	49	59	53	54	57	55	51	59	45
ESP	CPS	Median	BEGPRICE	370	693	1205	1700	2127.5	2887.5	3565	4690	6600	12925
		Median	IBESACTUAL	22	162	170	214	259	509.5	686	685	1097.1	1972
		QRange	T4IBESACTUAL	48	74	164.4	113.99	73.5	306.25	85.5	357.45	367	663
		QRange	FORECASTERR	9.12	42.93	54.31	34.51	47.66	95	100.5	121.27	318.94	320.23
		Median	DISPERSION	15.26	31	28	23.03	45.55	50	52	65.19	131	225.5
		N	IBESACTUAL	17	25	17	18	18	22	19	16	23	20
	EPS	Median	BEGPRICE	354	700	1200	1630	2070	2900	3565	4725	6770	12900
		Median	IBESACTUAL	10.6	58	72	103.4	117.3	204.52	286.37	373	559.8	947.5
		QRange	T4IBESACTUAL	58.6	81.05	143.5	50.26	59	80.3	77.4	130.82	109.91	171.5
		QRange	FORECASTERR	6.58	11.9	17	15.44	11.28	22	17.9	35.82	35.9	68.18
		Median	DISPERSION	4	7	12	13	14	20	30	25	40	53.5
		N	IBESACTUAL	27	29	27	29	27	29	29	27	29	28
	SAL	Median	BEGPRICE	437	659	1145	1542.5	2242.5	2675	3305	5080	6940	13200
		Median	IBESACTUAL	1191.79	1041.77	1104.92	2541.52	1582.45	4413.94	3175.34	3266.19	11052.7	15466.1
		QRange	T4IBESACTUAL	.	293.39	225.37	0	0	0	0	531.48	1656.29	0
		QRange	FORECASTERR	54.44	53.14	115.62	213.38	89.96	73.99	161.05	215.3	252.06	141.94
		Median	DISPERSION	22.25	18.46	14.4	105.89	70.88	34.24	202.98	71.86	204.74	758.29
		N	IBESACTUAL	7	8	8	8	6	10	5	5	9	5
FIM	CPS	Median	BEGPRICE	8.5	12.5	35.3	55	69.5	85.8	108.5	139.5	178.5	447.5
		Median	IBESACTUAL	1.35	4.55	10.95	9	11.4	19.79	14.25	24.5	34.15	26.96
		QRange	T4IBESACTUAL	0	10.3	5.5	14.3	12.69	9.9	3.8	6.5	5.89	5.22
		QRange	FORECASTERR	2.3	0.88	1.4	1.47	2.7	2.08	4.2	3.5	3.5	5.93
		Median	DISPERSION	1.05	2.87	1.26	1.2	2.33	1.68	2.3	3.2	2.6	5.29
		N	IBESACTUAL	2	2	6	3	6	8	6	7	6	6
	EPS	Median	BEGPRICE	5.6	13	34.3	48	70	85	102.5	131	183	307.5
		Median	IBESACTUAL	0.13	1.15	4.55	4.7	5.53	12	9.73	13.2	18.69	14.4

		QRange	T4IBESACTUAL	1.87	2.7	4.8	6.7	10.82	7.87	3.69	11.16	4.86	23.14
		QRange	FORECASTERR	0.93	1.06	1.2	1.49	1.94	3.55	2.99	2.44	3.89	3.3
		Median	DISPERSION	0.45	1.15	1.05	1	1.25	1.3	1.05	1.5	2.2	2.6
		N	IBESACTUAL	12	14	14	15	14	15	14	13	15	14
	SAL	Median	BEGPRICE	4.7	16.2	28	47	70	83	105	125.4	165.5	315
		Median	IBESACTUAL	31.87	457.6	106.71	136.73	228.46	189.26	172.1	435.32	606.87	1208.47
		QRange	T4IBESACTUAL	.	.	.	.	52.02	65.9	0	0	.	0
		QRange	FORECASTERR	8.88	20.98	5.69	5.72	0.55	5.55	23.49	10.63	13.76	241.62
		Median	DISPERSION	5.21	15.4	3.58	1.23	3.52	5.42	12.89	13.43	4.69	42.12
		N	IBESACTUAL	2	2	3	4	5	5	6	5	6	3
FRF	CPS	Median	BEGPRICE	110	195	269.4	338	403.5	474	570	704	953	1909
		Median	IBESACTUAL	14.1	30.95	39.5	45.5	56	58.2	77.47	89.7	87.3	210
		QRange	T4IBESACTUAL	12.3	24.9	14.6	17.6	19.21	24.49	16.6	34.25	46.1	65.9
		QRange	FORECASTERR	4.45	6.96	8.75	6.95	11.97	8.84	11.24	14.84	10.93	25.82
		Median	DISPERSION	3.39	4.55	4.73	5.73	7.4	6.67	9.25	9.4	9.15	20.2
		N	IBESACTUAL	69	62	62	67	59	69	71	62	61	71
	EPS	Median	BEGPRICE	113	190	256.6	337.5	403.8	480	577	724	983.5	1940
		Median	IBESACTUAL	2.41	8	12.5	17.3	19.35	21.5	25.8	35.4	41.75	73
		QRange	T4IBESACTUAL	11.96	11.94	15.31	15.53	18.8	17.87	26.67	30.63	36.21	82.95
		QRange	FORECASTERR	3.82	5.54	7.44	9.21	9.7	9.05	13.23	11.28	12.09	19.88
		Median	DISPERSION	1.7	1.89	2.02	2.02	2.54	2.9	2.91	3.65	3.39	6.17
		N	IBESACTUAL	117	117	119	120	120	119	121	119	120	119
	SAL	Median	BEGPRICE	103.5	175.5	252	316.8	378.2	442.5	536.5	675	894	1531
		Median	IBESACTUAL	246.03	426.72	388.29	374.56	728.48	631.43	1034.55	868.03	735.7	3750.97
		QRange	T4IBESACTUAL	58.66	42.19	68.98	329.82	178.52	81.23	196.4	238.36	79.21	465.57
		QRange	FORECASTERR	4.16	13.01	11.16	16.62	22.16	16.03	26.46	17.52	24.13	58.48
		Median	DISPERSION	4.48	9.96	5.33	7	14.68	13.47	25.5	14.18	15.59	59.38
		N	IBESACTUAL	37	38	30	36	40	42	42	41	38	44
GRD	CPS	Median	BEGPRICE	.	790	.	1215	1460	2040	2690	3295	4500	15797.5
		Median	IBESACTUAL	.	167	.	230.2	270.2	230	424.6	423	529	1656
		QRange	T4IBESACTUAL	.	.	.	.	.	.	.	.	.	.
		QRange	FORECASTERR	.	0	.	73.99	75.26	232.35	102.49	154.86	356.29	581.35
		Median	DISPERSION	.	30.03	.	33.52	30.8	70.61	41.69	41.48	102.86	565.43

		N	IBESACTUAL	.	1	.	4	3	3	5	3	7	4
	EPS	Median	BEGPRICE	457.5	708	930	1250	1655	2050.8	2800	3535	5310	13435
		Median	IBESACTUAL	10.25	62	68.9	121.2	162.8	151.75	196.8	191	205.5	1178.48
		QRange	T4IBESACTUAL	48	68.28	91.57	99.14	104.82	126.5	109.4	112.29	173.45	792.83
		QRange	FORECASTERR	14.41	35.5	26.76	66.58	70	35.65	69.07	76.62	129.95	302.5
		Median	DISPERSION	5.5	17	14	17	27	34	25	32	42	140
		N	IBESACTUAL	20	21	23	21	22	22	21	22	22	21
	SAL	Median	BEGPRICE	335	706	938	1250	1725	2270	2800	3830	5700	11817.5
		Median	IBESACTUAL	991.26	1293.65	1534.08	1984	2378.35	1691.55	2646.08	1882.16	2740.47	4859.16
		QRange	T4IBESACTUAL	.	761.5	214.39	343.82	2285.07	798.42	1465.83	2575.19	438.55	4739.47
		QRange	FORECASTERR	77.19	282.12	440.2	107.37	2298.51	504.62	485.15	400.89	158.02	1893.02
		Median	DISPERSION	28.31	166.87	101.4	218.47	205.32	195.96	247.99	212.13	180.53	821.37
		N	IBESACTUAL	6	11	15	9	11	12	12	12	11	8
HKD	CPS	Median	BEGPRICE	0.6	1.1	1.6	2.2	3.4	4.8	7.3	11.4	17.9	44.1
		Median	IBESACTUAL	0.09	0.14	0.19	0.27	0.33	0.41	0.63	1.05	1.53	3.59
		QRange	T4IBESACTUAL	0.13	0.19	0.19	0.27	0.42	0.31	0.64	0.75	0.86	1.88
		QRange	FORECASTERR	0.1	0.14	0.2	0.2	0.24	0.23	0.43	0.53	0.54	1.09
		Median	DISPERSION	0.04	0.05	0.07	0.07	0.08	0.08	0.15	0.22	0.32	0.66
		N	IBESACTUAL	73	92	99	97	120	121	134	125	146	134
	EPS	Median	BEGPRICE	0.7	1.2	1.7	2.2	3.3	4.9	7.4	11.7	18	45.4
		Median	IBESACTUAL	0.07	0.13	0.18	0.22	0.25	0.37	0.57	0.89	1.37	3.32
		QRange	T4IBESACTUAL	0.11	0.11	0.13	0.12	0.17	0.19	0.34	0.42	0.4	0.95
		QRange	FORECASTERR	0.06	0.06	0.05	0.06	0.07	0.07	0.12	0.13	0.17	0.32
		Median	DISPERSION	0.02	0.02	0.03	0.03	0.03	0.04	0.05	0.08	0.09	0.2
		N	IBESACTUAL	201	213	213	211	208	216	212	207	213	207
	SAL	Median	BEGPRICE	0.7	1.3	1.8	2.8	3.5	5.1	7.6	11.9	18.4	48.2
		Median	IBESACTUAL	0.8	1.2	1.85	1.92	2.21	2.38	3.53	3.69	5.41	10.01
		QRange	T4IBESACTUAL	0.15	0.26	0.52	0.6	0.52	0.8	1.01	1.77	1.24	3.09
		QRange	FORECASTERR	0.1	0.15	0.16	0.21	0.2	0.3	0.34	0.41	0.55	2.06
		Median	DISPERSION	0.04	0.08	0.08	0.1	0.11	0.16	0.2	0.3	0.31	0.94
		N	IBESACTUAL	96	107	116	121	122	140	134	136	138	144
IDR	CPS	Median	BEGPRICE	1150	1462.5	1850	2475	3068.8	3600	4800	6075	8002.6	17300
		Median	IBESACTUAL	226	188.87	90.67	282.25	219	375	410.4	491.14	705	902

		QRange	T4IBESACTUAL	135	146	160.74	272.83	171.48	185.57	390.49	602.02	481.31	560.74
		QRange	FORECASTERR	167.49	101.2	117.15	111.57	133.01	190.24	210.31	210.58	134.33	156.09
		Median	DISPERSION	36.4	40.55	43	45.61	32.55	73.5	138.03	83.66	119.75	242.9
		N	IBESACTUAL	23	32	19	30	26	27	30	34	30	33
	EPS	Median	BEGPRICE	850	1412.5	1862.5	2112.5	2575	3325	4500	5300	7800	17500
		Median	IBESACTUAL	79	92.59	95.46	103	128	164	277	268.91	398.25	688
		QRange	T4IBESACTUAL	74.11	81	90.44	134	77.81	184	348	275	336	453.3
		QRange	FORECASTERR	10.9	18.2	30.05	74.45	25.4	38.63	67.98	52.7	43.65	223.4
		Median	DISPERSION	11.5	12.25	9.7	14.95	13.3	19.55	26.9	23.9	28.7	78.4
		N	IBESACTUAL	39	42	40	44	41	40	43	41	40	39
	SAL	Median	BEGPRICE	250	570	732.5	815	1000	1810	2775	4087.5	6150	14125
		Median	IBESACTUAL	0.28	0.63	0.88	0.68	1.38	0.76	3.34	1.93	2.39	8.38
		QRange	T4IBESACTUAL	0.57	0.12	0.28	0.15	0.43	0.34	1.32	0.27	0.79	2.2
		QRange	FORECASTERR	0.03	0.05	0.03	0.09	0.08	0.12	0.22	0.13	0.1	0.42
		Median	DISPERSION	0.04	0.03	0.04	0.04	0.06	0.06	0.16	0.09	0.08	0.38
		N	IBESACTUAL	15	21	18	18	21	20	22	20	23	24
INR	CPS	Median	BEGPRICE	31	73.2	106.6	162	208.9	275	362.5	436.8	692.5	1425
		Median	IBESACTUAL	7.8	10.45	12.85	19.3	20.91	21.8	25.12	28.7	39.35	66.69
		QRange	T4IBESACTUAL	8.75	10.46	14.19	13.5	14.13	14.51	19.87	12.1	29.39	31.03
		QRange	FORECASTERR	3.35	7.26	8.77	6.33	7.87	9.84	8.53	8.19	11.93	19.92
		Median	DISPERSION	1.65	2.4	2.81	3.35	2.44	3.25	2.74	3.34	3.94	6.64
		N	IBESACTUAL	50	60	62	79	74	89	78	76	74	82
	EPS	Median	BEGPRICE	33.2	68.3	109.4	162	208.9	257.3	357.4	477.4	670	1450.8
		Median	IBESACTUAL	4.88	8.55	11.7	14.3	15.8	18.2	22.89	25.1	32.4	50.2
		QRange	T4IBESACTUAL	4.38	5.43	8.67	6.98	8.72	9.57	6.76	9.03	15.92	24.11
		QRange	FORECASTERR	1.62	2.32	3.86	3.09	3.56	4.14	3.66	3.31	4.88	7.37
		Median	DISPERSION	0.78	1.23	1.75	1.71	1.62	1.94	1.98	1.87	2.43	3.78
		N	IBESACTUAL	117	126	127	129	121	133	126	128	125	125
	SAL	Median	BEGPRICE	39.7	78.3	128.1	175.4	225.9	274.3	408.3	538.4	726.6	1421.3
		Median	IBESACTUAL	68.6	104.33	164.31	182.88	170.58	223.14	200.93	228.77	249.83	348.79
		QRange	T4IBESACTUAL	19.55	53.44	53.94	33.85	52.81	44.41	49.18	63.65	104.46	169.11
		QRange	FORECASTERR	12.57	14.7	35.47	35.8	23.21	28.62	14.71	26.95	22.15	28.84
		Median	DISPERSION	4.55	8.25	8.93	12.02	8.49	12.51	10.73	11.42	13.36	16.99

		N	IBESACTUAL	78	85	90	94	86	100	93	100	98	96
ITL	CPS	Median	BEGPRICE	815.9	1410	2019.5	3489	4310	5740	8344.5	9349	12220	24800
		Median	IBESACTUAL	186.5	302	408.5	632	737	1153	1301.5	1227	1303	2437
		QRange	T4IBESACTUAL	110	284	134.95	641.29	282	624.03	771	681	572	1264
		QRange	FORECASTERR	40.79	111.99	73.04	207.75	165.67	263.5	165	227.17	489	456.96
		Median	DISPERSION	29.54	45	72	102.5	123	118.62	172.5	184	154	311.22
		N	IBESACTUAL	16	21	18	20	21	16	18	23	11	10
	EPS	Median	BEGPRICE	710	1289.5	1975	3061	4066	5500	8079.4	9800	13000	21890
		Median	IBESACTUAL	0.01	2.55	36.06	157.89	113.4	254.5	264.16	371	499	859.48
		QRange	T4IBESACTUAL	203.16	267.43	192.93	282.68	345.22	269.2	649.16	554.37	661.57	737.15
		QRange	FORECASTERR	73	70.32	176.6	159.3	331.11	195	521.74	347.33	402.66	407.35
		Median	DISPERSION	26	28	37.5	55	50	71	88	81	101	102
		N	IBESACTUAL	51	54	56	55	55	55	55	55	55	53
	SAL	Median	BEGPRICE	1027	1770	2185	2620	3627.5	6170	8560	11000	15007.5	20000
		Median	IBESACTUAL	3610.08	3711.33	3981.62	3286.87	7518.04	15209.4	25941.4	19810.6	23646.6	16842.9
		QRange	T4IBESACTUAL	.	.	.	.	1411.9	2477.66	0	40279.4	0	0
		QRange	FORECASTERR	324.81	0	31.24	2835.9	884.57	900.64	887.97	16909.1	559.04	219.57
		Median	DISPERSION	158.23	93.19	67.3	530.75	219.58	654.31	398.2	959.14	527.21	202.54
		N	IBESACTUAL	2	1	2	3	12	12	5	7	4	7
JPY	CPS	Median	BEGPRICE	235.5	392	543	780	1017	1441	1920.5	2852.5	4965	95900
		Median	IBESACTUAL	55.38	70.18	80.98	95.21	121.45	161.47	187.97	218.02	289.38	1718.58
		QRange	T4IBESACTUAL	38.12	51.99	71.09	71.69	81.9	102.99	121.3	148.59	214.63	5272.9
		QRange	FORECASTERR	30.96	40.39	54.91	53.48	64.63	83.67	89.89	105.13	148.88	2907.31
		Median	DISPERSION	4.05	5.5	5.9	7.1	7.95	10	13.1	15.55	20.03	399.2
		N	IBESACTUAL	318	323	307	346	348	319	362	374	396	357
	EPS	Median	BEGPRICE	236	400	522	700	896.5	1150	1575	2150	3485	13100
		Median	IBESACTUAL	2.8	9.1	12.8	23.28	28.65	42.6	56.2	73.15	111.41	273.4
		QRange	T4IBESACTUAL	22.95	23.81	23.16	23.1	30.56	36.81	38	52.47	55.09	184.77
		QRange	FORECASTERR	7.41	6.72	6.99	7.77	9.2	11	13.45	13.69	17.29	76.8
		Median	DISPERSION	2.2	2.2	2.5	3.05	3.7	4.4	5.2	5.9	7.6	25.5
		N	IBESACTUAL	949	960	965	958	950	954	959	950	956	935
	SAL	Median	BEGPRICE	210.5	380.5	512.5	700.5	912	1201	1687	2385	3940	22925
		Median	IBESACTUAL	0.81	0.94	1.09	1.39	1.58	1.88	2.08	2.22	2.62	9.38

		QRange	T4IBESACTUAL	0.1	0.1	0.12	0.15	0.16	0.2	0.26	0.29	0.37	2.18
		QRange	FORECASTERR	0.03	0.03	0.04	0.05	0.05	0.06	0.06	0.07	0.08	0.47
		Median	DISPERSION	0.01	0.01	0.02	0.02	0.02	0.03	0.03	0.03	0.04	0.2
		N	IBESACTUAL	802	810	812	806	811	818	816	813	809	812
KRW	CPS	Median	BEGPRICE	5945	8875	10400	12395.4	13900	16150	18700	21500	32200	52000
		Median	IBESACTUAL	377	719.5	1110	1101	1804	1555.5	2730	2235	3904.32	7898.99
		QRange	T4IBESACTUAL	1322.26	1842.7	2428.4	759.36	1557	1539.7	1832.01	1685.6	1537.68	5941
		QRange	FORECASTERR	1681.46	2011.02	805.6	1278.3	1003.09	1292.48	1056.18	2418.18	948.92	3149.14
		Median	DISPERSION	331.35	508.4	373.42	334	622	470.73	428.62	390.32	564.86	892.64
		N	IBESACTUAL	54	58	68	53	57	62	49	75	75	68
	EPS	Median	BEGPRICE	6800	8885	10500	12000	13800	15600	17900	21990.9	30375.8	53950
		Median	IBESACTUAL	68	137.5	371	469	536	681	712.5	978	1380.5	3325
		QRange	T4IBESACTUAL	1750.2	1500	1042	1054.9	951.45	868.5	1330	1310.8	1202	3018.61
		QRange	FORECASTERR	822.8	1079.5	560	645.63	680	499.2	611.45	702.07	650	1385
		Median	DISPERSION	206	153.5	158	174.5	184	203	231	231	261	565
		N	IBESACTUAL	131	136	137	140	134	141	136	140	138	134
	SAL	Median	BEGPRICE	3910	6140	8100	10900	12650	14575	15950	17900	25100	52000
		Median	IBESACTUAL	30.84	27.81	32.88	39.41	38.96	38.83	39.78	44.84	43.33	76.32
		QRange	T4IBESACTUAL	17.2	13.1	17.42	23.75	18.24	15.85	18.25	14.87	17.43	56.21
		QRange	FORECASTERR	3.18	3.25	3.2	4.87	3.73	4.25	3.63	2.97	2.39	9.35
		Median	DISPERSION	1.34	2.05	1.7	2.44	1.54	1.7	1.52	1.57	1.24	3.42
		N	IBESACTUAL	61	63	63	67	58	72	66	63	66	55
MXN	CPS	Median	BEGPRICE	1.9	4	6.2	10.3	14.4	18	24.7	31.8	44	71.6
		Median	IBESACTUAL	0.26	0.26	0.54	0.84	1.64	2.51	2.91	2.8	3.23	2.22
		QRange	T4IBESACTUAL	2.47	1.78	0.63	1.53	2.84	11.7	2.66	5	7.19	9.44
		QRange	FORECASTERR	0.53	0.67	1.24	1.82	2.45	4.2	2.59	2.31	4.45	6.88
		Median	DISPERSION	0.13	0.22	0.18	0.37	0.5	0.84	0.85	0.8	1.9	1.98
		N	IBESACTUAL	19	20	22	21	26	22	29	28	30	26
	EPS	Median	BEGPRICE	2	4.6	7.8	10.4	14.3	18.7	25.7	32.1	45.8	90.7
		Median	IBESACTUAL	0.23	0.35	0.51	0.72	1.05	1.49	1.93	1.75	2.89	1.65
		QRange	T4IBESACTUAL	0.43	0.75	0.54	1.09	1.46	1	2.56	2.05	3.02	6.18
		QRange	FORECASTERR	0.15	0.35	0.36	0.51	0.73	0.77	1.04	0.53	1.41	0.45
		Median	DISPERSION	0.08	0.13	0.12	0.19	0.28	0.39	0.42	0.36	0.58	0.68

		N	IBESACTUAL	35	40	39	34	37	39	40	39	42	38
	SAL	Median	BEGPRICE	2.5	5.3	6.5	8.9	13.2	16.5	24.2	33.3	27	90.9
		Median	IBESACTUAL	9.08	12.31	14.17	27.12	30.68	52.47	24.85	25.97	42.27	33.4
		QRange	T4IBESACTUAL	9.25	1.71	1.62	39.06	8.45	8.02	3.71	7.77	1.19	49.63
		QRange	FORECASTERR	2.02	0.76	1.13	4.85	1.32	2.69	2.51	3.48	2.66	2.48
		Median	DISPERSION	0.25	0.36	0.46	2.27	0.61	1.47	1.9	1.85	2.77	1.14
		N	IBESACTUAL	9	8	8	11	12	11	14	20	11	17
MYR	CPS	Median	BEGPRICE	1.1	2	2.4	2.7	3.3	4.4	5	6	9.1	14.6
		Median	IBESACTUAL	0.09	0.17	0.22	0.29	0.33	0.4	0.44	0.43	0.82	1.21
		QRange	T4IBESACTUAL	0.15	0.19	0.23	0.44	0.38	0.43	0.49	0.36	0.47	0.62
		QRange	FORECASTERR	0.2	0.14	0.19	0.29	0.26	0.19	0.32	0.25	0.28	0.38
		Median	DISPERSION	0.04	0.04	0.06	0.07	0.07	0.07	0.1	0.08	0.12	0.19
		N	IBESACTUAL	63	83	82	85	76	80	88	99	106	94
	EPS	Median	BEGPRICE	1.3	2	2.5	3.2	3.7	4.4	5.1	6.1	8.9	15
		Median	IBESACTUAL	0.07	0.15	0.17	0.19	0.24	0.28	0.36	0.37	0.53	0.75
		QRange	T4IBESACTUAL	0.11	0.11	0.14	0.18	0.15	0.17	0.22	0.21	0.24	0.36
		QRange	FORECASTERR	0.04	0.04	0.06	0.06	0.05	0.07	0.07	0.07	0.07	0.11
		Median	DISPERSION	0.02	0.02	0.03	0.03	0.03	0.04	0.03	0.04	0.05	0.06
		N	IBESACTUAL	182	187	193	189	185	191	188	193	192	182
	SAL	Median	BEGPRICE	1	1.8	2.2	2.7	3.4	4.1	4.8	5.6	7.9	13.5
		Median	IBESACTUAL	1.1	1.12	1.66	1.89	2.3	2.77	3.27	3.12	3.54	5.02
		QRange	T4IBESACTUAL	0.3	0.34	0.32	0.58	0.57	0.66	0.91	0.99	0.67	0.9
		QRange	FORECASTERR	0.14	0.14	0.18	0.21	0.25	0.3	0.35	0.35	0.27	0.3
		Median	DISPERSION	0.08	0.08	0.08	0.09	0.14	0.18	0.23	0.16	0.17	0.21
		N	IBESACTUAL	71	92	97	96	98	92	103	120	116	119
NLG	CPS	Median	BEGPRICE	13.4	25.6	37.9	45.9	54	64.6	80	103	140.4	221.1
		Median	IBESACTUAL	2.36	3.83	5.26	7.4	8.8	10	13.6	14.25	20.4	28.66
		QRange	T4IBESACTUAL	0.87	1.09	1.22	2.19	1.32	1.96	3.66	2.99	3.41	6.4
		QRange	FORECASTERR	0.39	0.47	0.76	0.61	0.71	1.56	1.03	1.47	1.54	1.33
		Median	DISPERSION	0.2	0.37	0.64	0.52	0.52	0.72	1.03	1.06	1.31	1.8
		N	IBESACTUAL	20	28	25	31	31	31	37	27	27	28
	EPS	Median	BEGPRICE	14.1	24.7	37	45.5	54	64.7	80.5	102.5	140.1	227.8
		Median	IBESACTUAL	0.7	1.37	2.19	3.49	3.61	5.25	6.47	6.33	9.95	12.92

		QRange	T4IBESACTUAL	1.05	1.48	1.72	1.97	2.61	3.55	2.92	5.11	6.17	12.41
		QRange	FORECASTERR	0.45	0.94	1.12	0.44	0.62	0.79	1.31	1.17	1.5	1.93
		Median	DISPERSION	0.19	0.22	0.26	0.3	0.23	0.34	0.34	0.24	0.38	0.53
		N	IBESACTUAL	66	68	69	69	69	67	72	67	70	67
	SAL	Median	BEGPRICE	19	23	32.8	45.7	52.5	63.5	82.6	103	138.6	238.4
		Median	IBESACTUAL	68.71	23.67	79.73	126.85	92.88	204.35	119.57	107.28	152.12	278.69
		QRange	T4IBESACTUAL	0	0	0	14.43	34.01	24.4	26.82	88.03	61.83	37.44
		QRange	FORECASTERR	8.03	3.1	2.27	4.12	2.61	5.44	2.82	3.86	4.55	10.76
		Median	DISPERSION	0.71	0.89	2.28	2.71	1.73	4.24	2.13	1.67	1.31	5.6
		N	IBESACTUAL	2	3	5	10	13	9	13	8	8	12
NOK	CPS	Median	BEGPRICE	5.7	18.8	32.8	47.5	59	73	94.5	124	178	303
		Median	IBESACTUAL	0.9	1.45	2.94	5.69	6.1	7.8	9.89	15.26	17.74	31.21
		QRange	T4IBESACTUAL	2.14	3.28	4.05	4.52	5.2	6.76	9.1	16.12	8.48	23.42
		QRange	FORECASTERR	0.76	1.04	1.75	2.75	3.34	3.6	3.13	5.87	3.31	9.07
		Median	DISPERSION	0.39	0.59	0.76	1.32	1.24	1.39	1.84	2.2	2.5	4.58
		N	IBESACTUAL	45	49	52	64	61	60	63	53	39	47
	EPS	Median	BEGPRICE	6.5	20.9	35	49.5	61	74.5	102	134	181	272
		Median	IBESACTUAL	-0.03	0.95	1.64	2.23	3.6	5.05	4.6	8.34	16.44	19
		QRange	T4IBESACTUAL	2.62	2.62	3.19	4.42	5.79	5.57	7.94	8.95	10.86	19.61
		QRange	FORECASTERR	0.67	0.99	1.4	1.02	1.7	1.93	1.81	2.59	4.48	4.41
		Median	DISPERSION	0.25	0.36	0.5	0.5	0.62	0.96	1.09	1.17	1.39	1.76
		N	IBESACTUAL	69	74	70	77	75	80	75	76	74	75
	SAL	Median	BEGPRICE	5.7	18.8	34.3	47.5	58.8	71.5	93	125	179	297.5
		Median	IBESACTUAL	8.24	18.28	24.18	45.23	59.28	55.16	92.82	179.62	196.28	253.83
		QRange	T4IBESACTUAL	4.67	8.9	6.23	12.13	16.81	12.09	21.14	24.44	75.97	126.48
		QRange	FORECASTERR	1.09	0.88	1.41	2.04	4.83	2.61	6.45	4.31	19.56	16.89
		Median	DISPERSION	0.44	0.52	0.73	1.34	2.43	2.77	2.76	3.74	8.43	14
		N	IBESACTUAL	59	65	68	70	76	69	69	63	49	52
NZD	CPS	Median	BEGPRICE	0.6	1	1.2	1.7	2.1	2.9	3.6	4.6	5.8	8.3
		Median	IBESACTUAL	0.05	0.09	0.19	0.19	0.23	0.25	0.4	0.38	0.58	0.77
		QRange	T4IBESACTUAL	0.08	0.05	0.08	0.14	0.13	0.24	0.26	0.35	0.15	0.48
		QRange	FORECASTERR	0.03	0.05	0.04	0.06	0.06	0.06	0.1	0.14	0.13	0.17
		Median	DISPERSION	0.01	0.01	0.03	0.03	0.04	0.03	0.05	0.04	0.05	0.09

		N	IBESACTUAL	27	31	31	30	30	34	35	33	35	30
	EPS	Median	BEGPRICE	0.6	0.9	1.3	1.7	2.1	2.9	3.6	4.6	5.9	8.7
		Median	IBESACTUAL	0.04	0.08	0.11	0.12	0.15	0.17	0.26	0.32	0.36	0.47
		QRange	T4IBESACTUAL	0.04	0.04	0.07	0.1	0.07	0.07	0.13	0.14	0.13	0.22
		QRange	FORECASTERR	0.03	0.02	0.03	0.03	0.03	0.03	0.04	0.05	0.05	0.03
		Median	DISPERSION	0.01	0.01	0.01	0.01	0.02	0.01	0.02	0.02	0.02	0.02
		N	IBESACTUAL	43	55	48	50	49	51	50	50	50	46
	SAL	Median	BEGPRICE	0.7	1	1.3	1.7	2.2	3.2	3.7	4.7	6.1	8.7
		Median	IBESACTUAL	0.2	0.18	1.98	2.09	1.91	1.88	3.94	3.47	2.99	2.47
		QRange	T4IBESACTUAL	0.08	0.05	0.21	0.32	0.56	0.53	0.34	1.05	0.45	0.99
		QRange	FORECASTERR	0.04	0.05	0.09	0.14	0.16	0.12	0.19	0.11	0.16	0.1
		Median	DISPERSION	0.03	0.01	0.06	0.1	0.09	0.05	0.14	0.07	0.08	0.09
		N	IBESACTUAL	33	43	37	37	38	40	39	39	40	35
PHP	CPS	Median	BEGPRICE	0.7	1.3	1.6	2.4	5.5	8.4	12.8	22.8	44	174
		Median	IBESACTUAL	-0.15	-0.06	0.17	0.2	0.4	0.49	0.42	1.35	3.63	12.68
		QRange	T4IBESACTUAL	0.68	0.2	0.5	0.64	0.39	0.33	0.32	0.9	4.47	54.51
		QRange	FORECASTERR	0.32	0.26	0.41	0.52	0.39	0.55	0.49	0.73	4.25	8.04
		Median	DISPERSION	0.17	0.08	0.17	0.15	0.18	0.19	0.22	0.33	1.36	2.69
		N	IBESACTUAL	6	8	15	12	20	16	17	13	11	10
	EPS	Median	BEGPRICE	0.7	1.4	3.1	3.8	5.5	8.4	13.6	20	45	266.3
		Median	IBESACTUAL	0.03	0.07	0.15	0.21	0.2	0.4	0.42	0.99	3.26	8.71
		QRange	T4IBESACTUAL	0.36	0.24	0.58	0.5	0.21	0.79	0.58	0.31	2.35	8.48
		QRange	FORECASTERR	0.15	0.11	0.2	0.14	0.19	0.12	0.38	0.19	0.74	2.02
		Median	DISPERSION	0.04	0.03	0.06	0.05	0.08	0.08	0.09	0.11	0.3	1.83
		N	IBESACTUAL	24	26	25	26	26	26	26	26	27	24
	SAL	Median	BEGPRICE	0.6	0.8	1.6	2.2	3.3	5.2	8.5	15	29.5	114
		Median	IBESACTUAL	0.38	0.68	1.08	1.88	2.05	4.41	1.77	6.66	26.15	107.7
		QRange	T4IBESACTUAL	1.75	0.29	0.98	0.46	0.73	2.11	0.95	1.76	7.02	104.81
		QRange	FORECASTERR	0.5	0.36	0.24	0.26	0.4	1	0.26	0.83	5.34	24.72
		Median	DISPERSION	0.14	0.07	0.26	0.11	0.18	0.45	0.25	0.62	3.71	10.94
		N	IBESACTUAL	5	4	10	8	12	13	14	12	7	13
PLN	CPS	Median	BEGPRICE	3.6	6.6	10.1	13.2	23.8	28.5	34.6	42.6	58.5	161
		Median	IBESACTUAL	0.84	2.2	1.16	1.55	5.6	3.6	4.45	3.95	10	19.2

		QRange	T4IBESACTUAL	.	.	.	.	.	.	.	.	.	.
		QRange	FORECASTERR	0.27	1.57	3.55	0.8	12.14	0.26	0.73	0.08	1.35	16.31
		Median	DISPERSION	0.18	0.3	0.36	0.26	0.97	1.03	0.85	0.75	1.43	4.27
		N	IBESACTUAL	2	3	4	4	4	5	4	2	3	3
	EPS	Median	BEGPRICE	3.6	7.3	10.1	13.2	23.8	28.5	34.6	43.3	59.3	126
		Median	IBESACTUAL	0.74	1.02	0.63	0.83	2.6	2.95	2.05	4.43	3.24	17.45
		QRange	T4IBESACTUAL	.	.	.	.	.	.	.	.	.	.
		QRange	FORECASTERR	0.22	0.23	0.24	0.26	0.87	0.68	0.47	0.65	0.81	0.7
		Median	DISPERSION	0.11	0.18	0.24	0.28	0.45	0.25	0.4	0.62	1.2	1.2
		N	IBESACTUAL	4	4	4	4	4	5	4	4	4	4
	SAL	Median	BEGPRICE	5.1	6.6	9.7	12.1	24.1	28.5	34.6	42.6	60	139.5
		Median	IBESACTUAL	10.58	24.33	21.93	33.38	41.86	61.46	54.7	34.04	70.44	98.91
		QRange	T4IBESACTUAL	.	.	.	.	.	.	.	.	.	.
		QRange	FORECASTERR	0	0	7.22	3.28	0.77	1.4	6.71	2.04	1084.71	33.81
		Median	DISPERSION	1.01	0.24	2.98	0.17	2.07	2.48	3.26	0.66	2.19	9.14
		N	IBESACTUAL	1	1	3	3	3	5	4	2	3	2
SEK	CPS	Median	BEGPRICE	12.8	36	56	78.5	90.3	112.8	136.3	168.3	219	307.5
		Median	IBESACTUAL	0.72	1.79	5.68	8.3	10.59	13.35	14.48	18.31	18.8	22.7
		QRange	T4IBESACTUAL	1.31	1.8	2.97	5.42	5.59	8.4	7.58	10.13	12.01	21.95
		QRange	FORECASTERR	0.89	1.43	2.43	2.47	3.69	2.71	4.71	4.7	5.42	5.15
		Median	DISPERSION	0.37	0.52	0.86	1.4	1.57	1.9	2.27	2.48	2.2	2.5
		N	IBESACTUAL	77	80	77	91	86	100	92	104	107	93
	EPS	Median	BEGPRICE	14.8	39.5	61.5	80	93.8	116	142	171.8	221.5	320
		Median	IBESACTUAL	0.13	1.76	3.68	5.04	6.82	8.32	9.86	10.26	12.37	10.09
		QRange	T4IBESACTUAL	2.95	2.89	3.4	4.57	4.62	4.94	6.27	5.14	7.09	15.6
		QRange	FORECASTERR	0.78	1.23	1.28	1.52	1.24	1.4	1.85	1.61	1.87	1.64
		Median	DISPERSION	0.27	0.54	0.57	0.81	0.83	0.8	0.93	1.1	0.92	0.94
		N	IBESACTUAL	117	126	133	126	124	136	125	130	128	125
	SAL	Median	BEGPRICE	13.9	34.2	56	74.3	91.5	113.5	139	168.8	219.3	307.8
		Median	IBESACTUAL	12.41	35.27	61.1	109.56	138.34	158.11	141.45	185.91	159.78	188.45
		QRange	T4IBESACTUAL	4.78	7.94	11.37	22.31	28.69	24.94	33.33	27.85	59.23	103.37
		QRange	FORECASTERR	0.62	0.69	1.71	3.02	4.56	3.91	4.34	3.9	4.02	4.11
		Median	DISPERSION	0.42	0.5	1.33	2.11	2.53	2.77	3.58	3.53	2.95	3.37

		N	IBESACTUAL	93	93	99	104	101	118	109	116	104	106
SGD	CPS	Median	BEGPRICE	0.4	0.8	0.9	1.1	1.5	1.8	2.2	3.2	6.5	13.7
		Median	IBESACTUAL	0.04	0.07	0.1	0.09	0.14	0.15	0.16	0.22	0.44	0.9
		QRange	T4IBESACTUAL	0.05	0.05	0.05	0.09	0.12	0.11	0.15	0.17	0.17	0.88
		QRange	FORECASTERR	0.03	0.05	0.06	0.07	0.08	0.08	0.1	0.1	0.17	0.44
		Median	DISPERSION	0.01	0.01	0.02	0.02	0.03	0.03	0.04	0.06	0.09	0.14
		N	IBESACTUAL	40	55	64	61	70	84	73	90	78	69
	EPS	Median	BEGPRICE	0.5	0.7	0.9	1.4	1.7	2	2.5	3.4	6.2	13.3
		Median	IBESACTUAL	0.02	0.05	0.05	0.07	0.09	0.11	0.15	0.18	0.31	0.66
		QRange	T4IBESACTUAL	0.04	0.03	0.04	0.05	0.06	0.08	0.1	0.11	0.11	0.3
		QRange	FORECASTERR	0.02	0.01	0.02	0.02	0.02	0.04	0.03	0.04	0.05	0.07
		Median	DISPERSION	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.03	0.04
		N	IBESACTUAL	135	145	146	140	139	147	144	141	143	136
	SAL	Median	BEGPRICE	0.4	0.6	0.8	1	1.3	1.5	2	2.9	4.8	13.3
		Median	IBESACTUAL	0.37	0.5	0.63	0.57	0.83	1	0.93	1.06	3.9	3.52
		QRange	T4IBESACTUAL	0.22	0.2	0.17	0.25	0.31	0.3	0.27	0.29	0.9	1.19
		QRange	FORECASTERR	0.05	0.04	0.09	0.07	0.11	0.12	0.11	0.1	0.38	0.82
		Median	DISPERSION	0.02	0.02	0.03	0.04	0.07	0.08	0.08	0.09	0.23	0.21
		N	IBESACTUAL	60	71	72	67	77	79	78	83	93	77
THB	CPS	Median	BEGPRICE	4.7	8.9	12.9	18.2	21.2	28.3	42.5	55.5	129	264
		Median	IBESACTUAL	0.95	1.4	1.8	1.75	2.59	5.18	5.57	9.09	11.06	20.7
		QRange	T4IBESACTUAL	2.14	2.17	1.67	2.36	3.22	3.25	5.09	6.19	8.84	13.3
		QRange	FORECASTERR	1.38	1.43	2.11	1.59	2.13	3.36	3.19	2.71	4.78	5.01
		Median	DISPERSION	0.45	0.38	0.83	0.78	0.76	0.78	0.94	1.66	2.1	2.82
		N	IBESACTUAL	54	55	55	47	65	59	63	69	62	73
	EPS	Median	BEGPRICE	4.3	7.5	13.1	17.1	22	29	39.6	50.5	97	264
		Median	IBESACTUAL	0.27	0.58	0.79	1.11	1.71	2.99	3.63	4.43	5.81	12.56
		QRange	T4IBESACTUAL	0.73	1.02	1.49	2.2	1.69	2.21	2.69	5.12	4.26	7.99
		QRange	FORECASTERR	0.2	0.35	0.46	0.46	0.47	0.76	0.63	0.64	0.96	1.64
		Median	DISPERSION	0.11	0.15	0.18	0.19	0.29	0.35	0.39	0.61	0.77	1.13
		N	IBESACTUAL	91	95	98	94	96	101	100	97	98	92
	SAL	Median	BEGPRICE	3.2	5.5	10.3	13.6	18.6	25.3	33.4	41.8	71.5	220
		Median	IBESACTUAL	2.94	5.32	6.37	10.04	12.41	20.03	26.27	30.37	50.05	71.52

		QRange	T4IBESACTUAL	1.33	1.97	2.3	3.72	3.94	2.63	7.21	16.32	22.62	30.46
		QRange	FORECASTERR	0.23	0.91	0.69	1.02	1.6	1.88	1.46	2.59	2.96	4.02
		Median	DISPERSION	0.2	0.26	0.41	0.49	0.72	1.04	1.23	1.78	2.78	3.11
		N	IBESACTUAL	57	51	63	54	63	65	64	63	55	60
TRY	CPS	Median	BEGPRICE	.	3.6	4.1	5.7	6.1	8.4	11	14.3	22.5	93
		Median	IBESACTUAL	.	0.44	0.35	1.15	0.8	1.38	1.75	1.53	2.11	1.61
		QRange	T4IBESACTUAL	.	0	2.34	.	.	1.09	4.78	1.86	5.01	18.68
		QRange	FORECASTERR	.	0.33	0.83	1.63	3.72	0.63	4.07	2.32	3.69	4.94
		Median	DISPERSION	.	0	0	0.29	0.36	0.07	0	0.14	0.39	0
		N	IBESACTUAL	.	5	5	6	7	10	11	18	19	15
	EPS	Median	BEGPRICE	1.6	3	4.1	5.5	6.9	9	12	16.1	26.5	74
		Median	IBESACTUAL	0.18	0.25	0.33	0.37	0.56	0.55	0.74	0.86	0.97	1.45
		QRange	T4IBESACTUAL	0.61	0.64	0.54	0.81	0.96	0.74	1.12	1.84	2.17	4.54
		QRange	FORECASTERR	0.27	0.31	0.27	0.24	0.28	0.41	0.32	0.4	0.61	1
		Median	DISPERSION	0.11	0.13	0.13	0.13	0.16	0.16	0.2	0.26	0.29	0.49
		N	IBESACTUAL	136	143	148	152	151	150	153	150	154	148
	SAL	Median	BEGPRICE	1.9	3.1	4.5	6.1	6.7	10	13.3	17	27.5	79
		Median	IBESACTUAL	3.47	4.31	6.16	7.97	10.22	9.15	11.51	13.99	17.77	44.13
		QRange	T4IBESACTUAL	2.42	2.67	4.49	6.49	6.2	7.53	6.56	16.35	26.04	79.94
		QRange	FORECASTERR	0.74	0.67	1.04	1.26	1.12	1.83	1.76	2.37	2.82	11.99
		Median	DISPERSION	0.42	0.51	0.59	0.81	0.86	1.02	1.56	1.35	2.32	6
		N	IBESACTUAL	48	48	63	74	72	76	83	79	85	83
TWD	CPS	Median	BEGPRICE	17.6	22.2	27.7	32.2	40.4	45.2	55	64.5	85	162.5
		Median	IBESACTUAL	1.65	1.93	1.67	2.42	2.71	3.15	3.62	3.51	4	5.74
		QRange	T4IBESACTUAL	2.04	1.67	2.08	3.51	2.32	2.51	1.95	2.82	4.59	6.23
		QRange	FORECASTERR	1.6	0.9	1.21	1.44	1.12	1.05	2.12	1.66	3.09	3.69
		Median	DISPERSION	0.5	0.61	0.45	0.57	0.5	0.64	0.73	0.68	0.86	1.31
		N	IBESACTUAL	55	62	71	69	70	80	76	81	91	84
	EPS	Median	BEGPRICE	15.9	21	26.8	32.1	39.1	44.5	51.5	63.5	80	153.1
		Median	IBESACTUAL	0.57	0.84	1.18	1.3	1.58	1.97	2.33	2.57	3.67	4.83
		QRange	T4IBESACTUAL	1.23	1.2	1.22	1.69	1.52	1.53	1.96	1.38	1.92	1.94
		QRange	FORECASTERR	0.36	0.47	0.38	0.42	0.39	0.44	0.42	0.43	0.53	0.71
		Median	DISPERSION	0.16	0.23	0.21	0.28	0.26	0.27	0.3	0.33	0.37	0.5

		N	IBESACTUAL	128	135	143	131	136	139	136	136	139	128
	SAL	Median	BEGPRICE	14.8	19.6	25.1	31.5	37.5	43.8	50.5	61.5	81.5	169
		Median	IBESACTUAL	14.16	13.77	13.7	19	18.46	23.61	27.02	24.35	32.23	43.27
		QRange	T4IBESACTUAL	3.09	3.56	3.99	6.28	6.08	7.24	7.68	7.05	10.53	17.1
		QRange	FORECASTERR	1.89	3.41	3.1	3.35	2.05	7.39	5.73	4.14	3.73	4.52
		Median	DISPERSION	0.75	0.68	0.84	0.95	0.78	1.2	1	0.61	0.94	1.4
		N	IBESACTUAL	87	93	99	92	94	94	95	90	97	89
USD	CPS	Median	BEGPRICE	4.5	8.9	12.5	16.4	20	24.1	28.9	35.4	43.6	63
		Median	IBESACTUAL	0.74	1.14	1.67	1.86	2.3	2.33	2.86	3.19	3.63	5.23
		QRange	T4IBESACTUAL	0.49	1.08	1.1	0.85	0.81	0.71	0.94	1.03	1.24	1.96
		QRange	FORECASTERR	0.18	0.44	0.4	0.56	0.56	0.56	0.56	0.6	0.82	1.04
		Median	DISPERSION	0.09	0.15	0.16	0.21	0.21	0.23	0.25	0.3	0.33	0.44
		N	IBESACTUAL	132	117	153	163	213	225	281	339	405	508
	EPS	Median	BEGPRICE	5.3	9.2	13	16.4	20	24	28.4	34.3	43	62
		Median	IBESACTUAL	-0.02	0.31	0.6	0.85	1.07	1.31	1.54	1.81	2.17	2.79
		QRange	T4IBESACTUAL	0.5	0.52	0.51	0.51	0.49	0.47	0.49	0.58	0.73	1.27
		QRange	FORECASTERR	0.08	0.06	0.07	0.06	0.06	0.06	0.05	0.05	0.06	0.07
		Median	DISPERSION	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03
		N	IBESACTUAL	3,323	3,656	3,682	3,766	3,753	3,751	3,831	3,827	3,816	3,567
	SAL	Median	BEGPRICE	4.3	8.4	12.4	16.3	20.2	24.7	29.6	36.1	44.7	64.4
		Median	IBESACTUAL	2.62	4.82	7.68	11.32	12.9	13.7	15.24	16.95	19.7	22.05
		QRange	T4IBESACTUAL	0.83	1.18	1.77	2.2	2.85	2.88	3.44	4.16	4.17	7.09
		QRange	FORECASTERR	0.09	0.14	0.18	0.25	0.3	0.33	0.38	0.43	0.49	0.53
		Median	DISPERSION	0.03	0.04	0.06	0.09	0.12	0.12	0.16	0.18	0.22	0.23
		N	IBESACTUAL	1,470	1,624	1,530	1,605	1,608	1,644	1,773	1,844	1,917	1,967
ZAR	CPS	Median	BEGPRICE	1.9	4.4	5.9	8.1	11.5	15	25.1	38.5	53.8	129.8
		Median	IBESACTUAL	0.32	0.65	0.84	1.19	1.74	1.83	2.81	4.91	6.74	18.56
		QRange	T4IBESACTUAL	0.22	0.36	1	0.62	1.1	1.29	3.38	4.66	4.63	22.96
		QRange	FORECASTERR	0.24	0.57	0.5	0.6	0.65	1.23	1.94	2.82	4.31	7.27
		Median	DISPERSION	0.15	0.25	0.34	0.46	0.54	0.6	0.96	2.02	1.9	4.74
		N	IBESACTUAL	17	26	34	27	32	39	33	41	46	33
	EPS	Median	BEGPRICE	2.2	4.5	7.1	9.9	12.7	19.1	26.6	44	65.5	146.5
		Median	IBESACTUAL	0.22	0.45	0.69	0.97	1.15	1.53	2.31	2.93	4.98	9.23

		QRange	T4IBESACTUAL	0.27	0.3	0.29	0.39	0.57	0.79	0.9	1.63	1.85	4.13
		QRange	FORECASTERR	0.08	0.12	0.14	0.16	0.19	0.23	0.3	0.5	0.52	0.9
		Median	DISPERSION	0.03	0.04	0.05	0.06	0.08	0.1	0.17	0.2	0.26	0.69
		N	IBESACTUAL	135	138	140	140	136	141	142	137	141	137
	SAL	Median	BEGPRICE	2	4.8	6.6	9	12.4	16.5	30.5	50.5	63.4	150.6
		Median	IBESACTUAL	5.03	7.43	14.15	17.24	18.34	28.7	35.45	43.34	61.72	101.27
		QRange	T4IBESACTUAL	2.88	2.52	4.44	3.28	2.89	7.31	11.1	8.48	24.15	18.32
		QRange	FORECASTERR	0.76	0.66	1.13	1.23	1.91	1.78	2.08	4.51	4.47	10.38
		Median	DISPERSION	0.44	0.2	0.66	0.41	0.92	1.32	0.92	1.2	2.62	4.19
		N	IBESACTUAL	10	14	24	15	23	29	34	26	37	36
EUR	CPS	Median	BEGPRICE	783	5.1	8.9	12.1	16.3	24.3	29.3	69.5	76.1	194
Belgium		Median	IBESACTUAL	3.53	0.98	0.04	2.7	2.67	3.95	5.8	5.64	6.97	13.76
		QRange	T4IBESACTUAL	.	0.52	1.42	0.7	2.68	2.7	1.87	2.18	3.5	12.35
		QRange	FORECASTERR	1.18	0.72	0.56	0.89	1.21	2.17	1.48	1.56	2.03	3.74
		Median	DISPERSION	0.2	0.26	0.2	0.47	0.27	0.4	0.59	0.61	1.08	2.11
		N	IBESACTUAL	2	6	12	10	21	30	27	55	42	41
	EPS	Median	BEGPRICE	783	5.1	9.1	15.7	16.8	31.4	34	69.5	95.6	204.6
		Median	IBESACTUAL	1.86	0.06	0.08	0.53	1.09	1.15	2.23	3.24	4.53	7.94
		QRange	T4IBESACTUAL	0	1.64	0.49	2.2	0.55	1.54	1.4	1.79	1.59	3.16
		QRange	FORECASTERR	0.33	0.03	0.3	0.38	0.19	0.66	0.7	0.83	0.92	1.31
		Median	DISPERSION	0.21	0.12	0.09	0.16	0.14	0.25	0.33	0.39	0.41	0.67
		N	IBESACTUAL	2	6	14	14	28	41	47	81	66	69
	SAL	Median	BEGPRICE	783	5.1	8.6	11.7	16.4	25.3	30.3	47.9	72.8	179
		Median	IBESACTUAL	66.88	22.66	6.87	26.46	14.71	31.53	22.65	55.16	69.31	106.56
		QRange	T4IBESACTUAL	.	2.03	3.03	3.25	1.78	3.48	4.17	8.57	18.67	67.24
		QRange	FORECASTERR	5.3	0.36	0.17	0.94	0.43	0.74	1.65	1.75	2.05	4.54
		Median	DISPERSION	1.4	0.55	0.13	0.34	0.33	0.52	1.23	1.55	1.79	3.88
		N	IBESACTUAL	2	6	16	15	24	35	36	51	46	51
EUR	CPS	Median	BEGPRICE	2.5	4.4	8.2	11.7	16	20.7	27.2	38.1	53.9	143
Germany		Median	IBESACTUAL	0.23	0.37	0.94	1.12	1.92	2.72	3.9	4.18	5.07	6.34
		QRange	T4IBESACTUAL	0.42	0.82	0.79	1.24	2.07	1.71	2.36	2.55	2.82	6.14
		QRange	FORECASTERR	0.31	0.58	0.98	1.5	1.28	1.45	2.1	2.54	2.28	3.86
		Median	DISPERSION	0.17	0.13	0.27	0.31	0.48	0.58	0.62	0.78	1.06	1.32

		N	IBESACTUAL	56	87	123	126	150	126	131	140	132	127
	EPS	Median	BEGPRICE	2.9	5.3	9.5	13.6	16.6	23.5	30.9	42	60.5	145.2
		Median	IBESACTUAL	-0.05	0.04	0.37	0.61	0.9	1.05	1.45	1.74	2.49	3.45
		QRange	T4IBESACTUAL	0.74	0.75	0.87	1.03	1.14	1.05	1.26	1.72	1.41	5.38
		QRange	FORECASTERR	0.45	0.33	0.27	0.37	0.38	0.65	0.43	0.35	0.38	0.66
		Median	DISPERSION	0.14	0.14	0.15	0.16	0.19	0.2	0.24	0.2	0.28	0.35
		N	IBESACTUAL	95	160	192	197	202	192	187	178	179	167
	SAL	Median	BEGPRICE	2.6	4.9	8.3	12.3	16	21.7	29.3	40.2	58	128.2
		Median	IBESACTUAL	4.48	7.5	11.14	20.94	26.8	31.52	37.07	41.54	55.45	92.49
		QRange	T4IBESACTUAL	1.76	1.74	3.34	3.53	4.67	6.36	8.79	10.36	11.49	48.64
		QRange	FORECASTERR	0.39	0.58	0.57	1.53	0.88	1.35	1.18	1.03	1.85	2.89
		Median	DISPERSION	0.22	0.28	0.32	0.76	0.62	0.93	0.83	1.06	1.4	2.56
		N	IBESACTUAL	85	144	180	184	204	185	195	182	179	165
EUR Spain	CPS	Median	BEGPRICE	1.7	6.1	10.2	12.1	15.5	20.4	35.2	37.2	2352.1	11940
		Median	IBESACTUAL	0.2	0.82	1.05	1.15	1.9	2.52	3.15	3.25	1.69	2.63
		QRange	T4IBESACTUAL	0.12	0.11	0.29	0.48	0.76	0.92	1.71	2.28	5.93	.
		QRange	FORECASTERR	0.07	0.24	0.37	0.28	0.39	0.8	0.78	0.62	0.63	1.1
		Median	DISPERSION	0.04	0.1	0.12	0.21	0.24	0.4	0.37	0.37	0.35	0.52
		N	IBESACTUAL	14	24	44	53	46	48	30	34	14	7
	EPS	Median	BEGPRICE	2.2	6	10	11.7	15.7	21.4	27.4	40.4	2198.5	11940
		Median	IBESACTUAL	0.11	0.42	0.52	0.75	1.09	1.36	1.67	1.77	1.73	2.12
		QRange	T4IBESACTUAL	0.15	0.19	0.2	0.21	0.25	0.31	0.73	0.51	1.15	1.61
		QRange	FORECASTERR	0.08	0.12	0.12	0.11	0.14	0.14	0.14	0.18	0.24	0.66
		Median	DISPERSION	0.03	0.08	0.07	0.08	0.1	0.11	0.12	0.13	0.15	0.26
		N	IBESACTUAL	48	88	111	112	105	87	63	63	42	15
	SAL	Median	BEGPRICE	1.9	5.5	9.7	11.8	15.2	21.1	27.3	39.5	59.2	11380
		Median	IBESACTUAL	2	5.39	5.72	8.24	11.04	13.99	12.5	14.62	22.86	21.72
		QRange	T4IBESACTUAL	0.29	0.9	1.49	2.23	1.76	2.65	2.64	4.05	6.29	9.23
		QRange	FORECASTERR	0.26	0.52	0.71	0.61	0.54	1.14	1.72	1.21	1.06	2.07
		Median	DISPERSION	0.14	0.22	0.34	0.45	0.7	0.85	0.97	0.73	0.98	1.66
		N	IBESACTUAL	46	84	110	111	98	91	64	63	37	13
EUR France	CPS	Median	BEGPRICE	1.3	5.1	8.7	15.9	20	25.1	33.7	41.5	60.9	113.8
		Median	IBESACTUAL	0.08	0.36	0.98	1.7	3.06	3.08	3.82	4.36	6.01	8.84

		QRange	T4IBESACTUAL	0.27	0.63	0.6	1.4	1.45	1.49	1.78	2.6	2.68	6.54
		QRange	FORECASTERR	0.22	0.5	0.51	0.91	1.07	1.16	1.17	1.85	1.54	2.2
		Median	DISPERSION	0.1	0.2	0.18	0.4	0.5	0.58	0.68	0.68	0.96	1.19
		N	IBESACTUAL	39	49	51	83	137	148	205	263	332	335
	EPS	Median	BEGPRICE	1.5	5.8	10.3	17.6	22.9	30	35.9	44	67.4	115.7
		Median	IBESACTUAL	-0.05	-0.25	0.4	0.63	1.37	1.42	1.92	2.22	3.51	4.88
		QRange	T4IBESACTUAL	0.31	1.21	0.58	1.22	1.05	1.33	1.36	1.31	1.35	3.85
		QRange	FORECASTERR	0.11	0.55	0.55	0.56	0.41	0.57	0.53	0.53	0.56	0.74
		Median	DISPERSION	0.06	0.18	0.2	0.19	0.21	0.28	0.23	0.28	0.35	0.43
		N	IBESACTUAL	39	48	58	86	155	184	215	285	338	359
	SAL	Median	BEGPRICE	1.4	5.2	8.5	15	20.5	23.2	33	41	60	105.4
		Median	IBESACTUAL	1.49	7.48	12.53	26.18	28.96	29.33	38.67	54.72	73.23	81.53
		QRange	T4IBESACTUAL	0.72	1.81	1.99	4.05	4.29	5	6.08	8.03	11.51	36.59
		QRange	FORECASTERR	0.12	0.33	0.28	0.87	0.72	0.79	1.06	0.92	1.44	1.48
		Median	DISPERSION	0.05	0.15	0.18	0.81	0.79	0.79	0.84	0.96	1.4	1.5
		N	IBESACTUAL	49	64	67	99	172	204	249	328	396	422
EUR	CPS	Median	BEGPRICE	2.4	4.3	8	10	16.3	18.9	25.7	37.6	.	10925
Greece		Median	IBESACTUAL	0.43	0.51	0.63	0.76	1.66	1.71	0.64	3.57	.	0.95
		QRange	T4IBESACTUAL	0.32	0.61	1.13	1.36	0.44	0.52	1.95	0	.	0
		QRange	FORECASTERR	0.21	0.52	0.78	1.08	0.31	0.73	3.12	3.53	.	0.15
		Median	DISPERSION	0.04	0.06	0.1	0.11	0.22	0.19	0.25	0.28	.	0.16
		N	IBESACTUAL	24	49	35	17	13	16	13	3	.	19
	EPS	Median	BEGPRICE	2.3	4.2	6.9	9.8	14.6	17	25	39	12222.9	8300
		Median	IBESACTUAL	0.14	0.26	0.39	0.48	0.74	1.09	1.59	2.24	2.44	0.37
		QRange	T4IBESACTUAL	0.07	0.2	0.31	0.36	0.47	0.38	0.98	1.3	2.14	0.29
		QRange	FORECASTERR	0.03	0.07	0.1	0.17	0.11	0.21	0.14	0.37	1.07	0.16
		Median	DISPERSION	0.02	0.03	0.05	0.05	0.08	0.06	0.1	0.28	0.33	0.1
		N	IBESACTUAL	42	80	66	30	31	23	15	8	2	56
	SAL	Median	BEGPRICE	2.4	4.4	7.2	10	14.6	17.4	25	39	12222.9	8570
		Median	IBESACTUAL	3.49	4.52	5.66	8.77	6.37	10.62	6.76	12.46	17.92	4.37
		QRange	T4IBESACTUAL	0.56	1.23	1.5	2.31	2	2.57	3.13	1.44	0	0
		QRange	FORECASTERR	0.27	0.31	0.37	0.37	0.49	0.52	0.29	0.48	0.27	0.65
		Median	DISPERSION	0.1	0.15	0.21	0.28	0.33	0.45	0.41	0.41	1.36	0.38

		N	IBESACTUAL	47	91	71	30	27	26	19	8	2	52
EUR Italy	CPS	Median	BEGPRICE	2	5.5	8.2	11.5	15.2	19.6	27.3	39.1	56.6	8975
		Median	IBESACTUAL	0.25	0.61	0.77	1.22	1.91	1.77	1.08	2.05	0.53	0.54
		QRange	T4IBESACTUAL	0.27	0.36	0.41	0.34	1.24	1.51	0.51	2.64	2.67	.
		QRange	FORECASTERR	0.2	0.32	0.31	0.34	0.47	1.04	1.21	1.23	0.25	0.59
		Median	DISPERSION	0.05	0.09	0.1	0.19	0.22	0.26	0.14	0.44	0.11	0.21
		N	IBESACTUAL	210	105	69	53	33	18	16	21	18	9
	EPS	Median	BEGPRICE	2	5.5	8.5	11	14.8	19.7	28.3	44.3	5120	14097.5
		Median	IBESACTUAL	0.08	0.32	0.42	0.45	0.91	0.86	0.63	0.56	0.16	0.38
		QRange	T4IBESACTUAL	0.11	0.13	0.23	0.23	0.5	1.01	0.33	0.66	0.38	0.13
		QRange	FORECASTERR	0.06	0.09	0.1	0.14	0.24	0.24	0.28	0.1	0.15	0.1
		Median	DISPERSION	0.03	0.04	0.05	0.08	0.12	0.13	0.11	0.13	0.04	0.07
		N	IBESACTUAL	278	138	100	71	60	37	35	37	42	50
	SAL	Median	BEGPRICE	2	5.3	7.9	11.1	14.7	19.5	26.2	40.9	2330.5	12800
		Median	IBESACTUAL	2.49	4.49	6.03	6.45	9.55	10.68	18.97	14.67	5.24	4.9
		QRange	T4IBESACTUAL	0.65	0.92	0.95	1.3	2.27	4.94	3.9	3.31	4.09	0
		QRange	FORECASTERR	0.17	0.34	0.25	0.31	0.78	0.56	1.38	0.87	0.36	0.57
		Median	DISPERSION	0.1	0.18	0.16	0.21	0.34	0.54	0.98	0.32	0.21	0.34
		N	IBESACTUAL	284	149	114	81	67	41	34	39	32	37
EUR Nether-lands	CPS	Median	BEGPRICE	2.4	8.1	9.9	13.9	17.9	20.7	26.4	37.1	52.3	127.1
		Median	IBESACTUAL	0.1	0.84	1.15	1.61	2.26	2.18	3.1	3.53	4.1	4.06
		QRange	T4IBESACTUAL	0.53	0.39	1.22	1.38	2.37	1.78	1.57	2.23	3.03	8.01
		QRange	FORECASTERR	0.33	1.02	1.04	0.88	0.87	1.27	0.91	2	1.15	3.32
		Median	DISPERSION	0.18	0.2	0.28	0.24	0.33	0.41	0.44	0.52	0.59	0.78
		N	IBESACTUAL	28	47	59	95	86	90	106	68	64	24
	EPS	Median	BEGPRICE	12.5	8.7	11.8	15.5	21.9	22.4	27.2	39.8	52.3	189
		Median	IBESACTUAL	0.26	0.43	0.96	1.07	1.35	1.75	1.98	2.98	3.5	2.95
		QRange	T4IBESACTUAL	0.39	0.7	0.55	0.57	0.79	0.62	1.05	0.85	1.51	2.62
		QRange	FORECASTERR	0.17	0.22	0.17	0.21	0.21	0.21	0.25	0.25	0.36	1.24
		Median	DISPERSION	0.08	0.11	0.11	0.1	0.11	0.14	0.15	0.15	0.27	0.36
		N	IBESACTUAL	54	97	88	124	109	121	127	73	68	27
	SAL	Median	BEGPRICE	3.3	8.5	10.9	14	19.5	22.1	27.3	37.8	52.3	93.3
		Median	IBESACTUAL	8.54	18.16	31.18	26.58	36.33	31.01	40.71	45.61	43.33	31.23

		QRange	T4IBESACTUAL	3.11	3.56	5.93	4.49	5.35	7.61	6.92	7.12	14.67	30.92
		QRange	FORECASTERR	0.42	1.33	1.86	0.96	1.21	1.5	1.43	1.16	2.07	1.48
		Median	DISPERSION	0.24	0.74	0.98	0.59	0.81	1.15	1.1	0.84	1.44	1.46
		N	IBESACTUAL	39	76	79	126	102	113	128	77	72	26
EUR Portugal	CPS	Median	BEGPRICE	.	6.7	12.5	17.8	26.7	32.8	43.2	.	113	200.6
		Median	IBESACTUAL	.	0.48	1.54	1.66	2.64	2.45	1.62	.	6.74	1.15
		QRange	T4IBESACTUAL	.	0	.	0	0	.	0	.	.	.
		QRange	FORECASTERR	.	0.7	1.39	3.15	3.23	4.26	0.58	.	0	0
		Median	DISPERSION	.	0.18	0.23	0.15	0.62	0.22	0.25	.	0.3	0.1
		N	IBESACTUAL	.	5	9	7	5	2	4	.	1	1
	EPS	Median	BEGPRICE	.	6.8	12.4	18.2	26.7	32.8	43.2	.	113	200.6
		Median	IBESACTUAL	.	0.24	0.65	1.09	1.05	0.3	0.53	.	2.26	0.36
		QRange	T4IBESACTUAL	.	0.46	0.96	0.26	0.85	0.06	1.36	.	.	0
		QRange	FORECASTERR	.	0.2	0.11	0.12	0.61	0.02	0.25	.	0	0
		Median	DISPERSION	.	0.05	0.12	0.08	0.14	0.03	0.16	.	0.23	0.08
		N	IBESACTUAL	.	6	10	9	7	2	4	.	1	1
	SAL	Median	BEGPRICE	.	6.7	12.4	17.8	26.6	32.8	43.2	.	113	200.6
		Median	IBESACTUAL	.	17.82	23.67	13.89	17.13	20.68	18.71	.	37.5	3.16
		QRange	T4IBESACTUAL	.	4.18	3.37	1.25	22.42	2.02	19.83	.	.	0
		QRange	FORECASTERR	.	1.4	0.9	0.61	12.46	3.59	4.9	.	0	0
		Median	DISPERSION	.	0.77	1.11	0.31	1.41	0.47	0.96	.	1.27	0.11
		N	IBESACTUAL	.	5	10	7	6	2	4	.	1	1
EUR Ireland	CPS	Median	BEGPRICE	2.3	7.6	10.8	21.9	.	.	.	.	.	.
		Median	IBESACTUAL	0.23	0.73	1.34	2.24	.	.	.	.	.	.
		QRange	T4IBESACTUAL	0.2	18.15	2.25	0	.	.	.	.	.	.
		QRange	FORECASTERR	0.23	0.31	0.15	0	.	.	.	.	.	.
		Median	DISPERSION	0.05	0.08	0.12	0.13	.	.	.	.	.	.
		N	IBESACTUAL	12	7	3	1	.	.	.	.	.	.
	EPS	Median	BEGPRICE	1.8	7.6	11.5	21.9	23.5	.	.	.	.	.
		Median	IBESACTUAL	0.2	0.64	0.72	1.36	2.81	.	.	.	.	.
		QRange	T4IBESACTUAL	0.08	0.16	0.13	0	0	.	.	.	.	.
		QRange	FORECASTERR	0.04	0.05	0.06	0	0	.	.	.	.	.
		Median	DISPERSION	0.01	0.02	0.02	0.07	0.03	.	.	.	.	.

		N	IBESACTUAL	25	10	5	1	1	.	.	.	.	.
	SAL	Median	BEGPRICE	1.8	7.6	11.5	21.9	23.5	.	.	.	.	.
		Median	IBESACTUAL	3.12	8.41	2.86	21.01	50.43	.	.	.	.	.
		QRange	T4IBESACTUAL	0.79	1.93	1.49	0	0	.	.	.	.	.
		QRange	FORECASTERR	0.23	2	0.36	0	0	.	.	.	.	.
		Median	DISPERSION	0.07	0.75	0.53	1.66	0.14	.	.	.	.	.
		N	IBESACTUAL	24	8	5	1	1	.	.	.	.	.
EUR	CPS	Median	BEGPRICE	1.9	5.7	9.4	11.5	15.8	24.2	30	35	82.6	440
Finland		Median	IBESACTUAL	0.1	0.8	1.06	1.65	1.84	2.31	2.45	1.92	2.61	1.64
		QRange	T4IBESACTUAL	0.18	0.69	1.04	0.99	1.15	1.9	2.37	3.51	2.74	13.47
		QRange	FORECASTERR	0.09	0.45	0.45	0.52	0.43	0.5	0.79	0.68	1.07	0.83
		Median	DISPERSION	0.03	0.17	0.13	0.23	0.28	0.36	0.26	0.29	0.44	0.25
		N	IBESACTUAL	50	64	61	73	58	61	45	26	16	9
	EPS	Median	BEGPRICE	2	5.7	8.9	11.9	16.3	22.5	27.2	36.6	105.4	440
		Median	IBESACTUAL	0.05	0.27	0.55	0.84	1.12	1.43	1.52	1.34	2.21	1.02
		QRange	T4IBESACTUAL	0.18	0.5	0.54	0.83	0.62	0.93	0.93	1.32	2.26	1.33
		QRange	FORECASTERR	0.06	0.14	0.18	0.21	0.21	0.26	0.29	0.17	0.36	0.15
		Median	DISPERSION	0.02	0.07	0.08	0.09	0.12	0.17	0.14	0.1	0.19	0.12
		N	IBESACTUAL	68	95	79	97	77	69	53	31	16	9
	SAL	Median	BEGPRICE	2	5.3	8.7	11.9	16.3	22.6	28.1	36.1	96	440
		Median	IBESACTUAL	1.33	7.61	16.16	21.57	21.59	30.39	33.78	29.79	38.62	34.89
		QRange	T4IBESACTUAL	0.36	1.62	2.76	3.18	4.75	5.77	12.93	31.43	48.76	93.13
		QRange	FORECASTERR	0.08	0.22	0.44	0.58	0.47	0.83	0.75	1.02	1.42	1
		Median	DISPERSION	0.03	0.15	0.23	0.39	0.4	0.48	0.46	0.68	1.1	1.19
		N	IBESACTUAL	80	106	84	101	77	74	53	32	17	9

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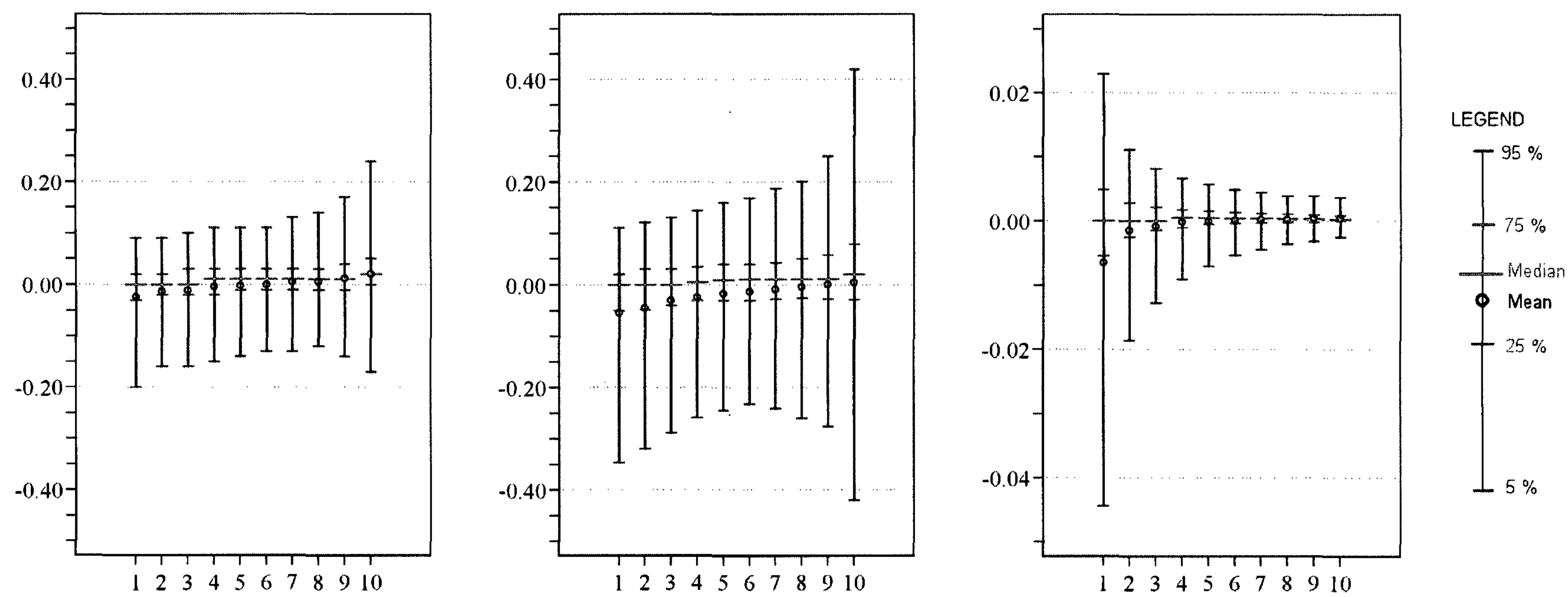
Figure 1. Distribution of forecast error and dispersion for different *BEGPRICE* deciles

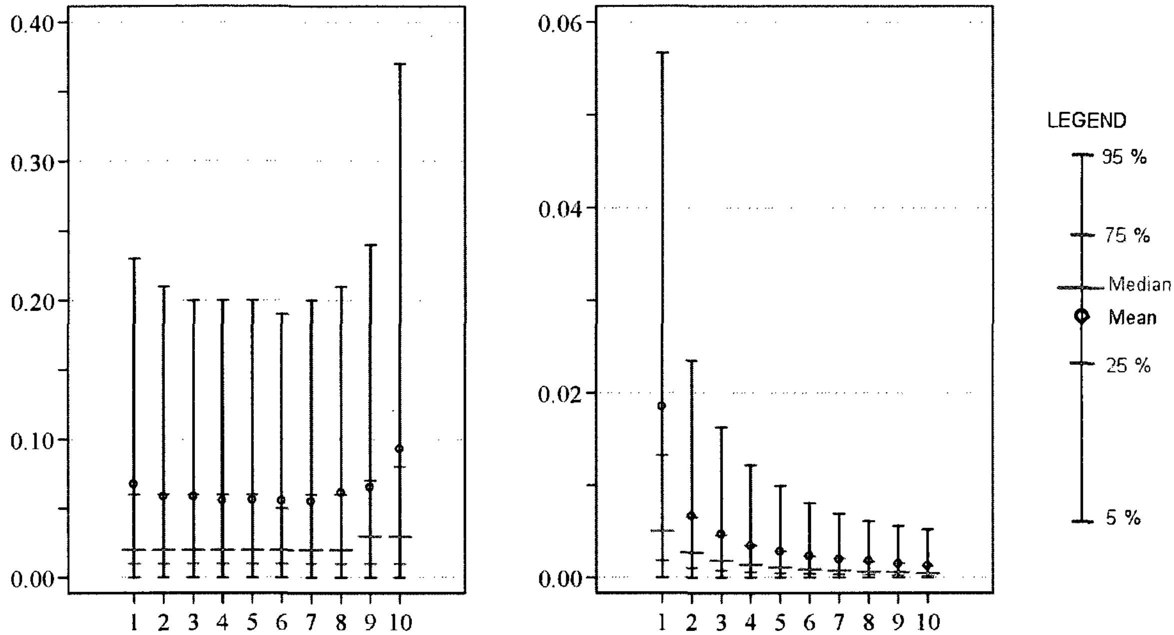
The plots below describe key distributional statistics for measures of forecast error and forecast dispersion for different deciles of *BEGPRICE*, which is the beginning-of-quarter share price (in dollars). The price deciles are computed each calendar quarter, and the lowest (highest) price decile is denoted by 1 (10). The mean is indicated by the solid circle, the median by the long horizontal hash mark, and the remaining hash marks locate the 5^{th}, 25^{th}, 75^{th}, and 95^{th} percentiles of the pooled distributions for the different variables. *FORECASTERR* is defined as *IBESACTUAL* minus *FORECAST*, where *IBESACTUAL* is the actual quarterly EPS (in dollars) as reported by I/B/E/S, and *FORECAST* is the most recent consensus (mean) EPS forecast (in dollars) for that firm-quarter. *COMPFE* equals *FORECAST* minus *COMPACTUAL*, where *COMPACTUAL* is the actual quarterly EPS (in dollars) as reported by Compustat.

ABSFE is the absolute value of *FORECASTERR*. *DISPERSION* is the standard deviation of the *individual* analysts' EPS forecasts around the consensus in that firm-quarter. *DEFLFE*, *DEFLABSFE*, and *DEFLDISP* are defined as *FORECASTERR*, *ABSFE*, and *DISPERSION* scaled by the beginning-of-quarter share price (*BEGPRICE*), respectively. All variables relate to firm-quarters, and are described in more detail in the Appendix A.

Panel A: Distribution of *FORECASTERR*, *COMPFE*, and *DEFLFE* in each *BEGPRICE* decile



Panel B: Distribution of *ABSFE* and *DEFLABSFE* in each *BEGPRICE* decile



Panel C: Distribution of *DISPERSION* and *DEFLDISP* in each *BEGPRICE* decile

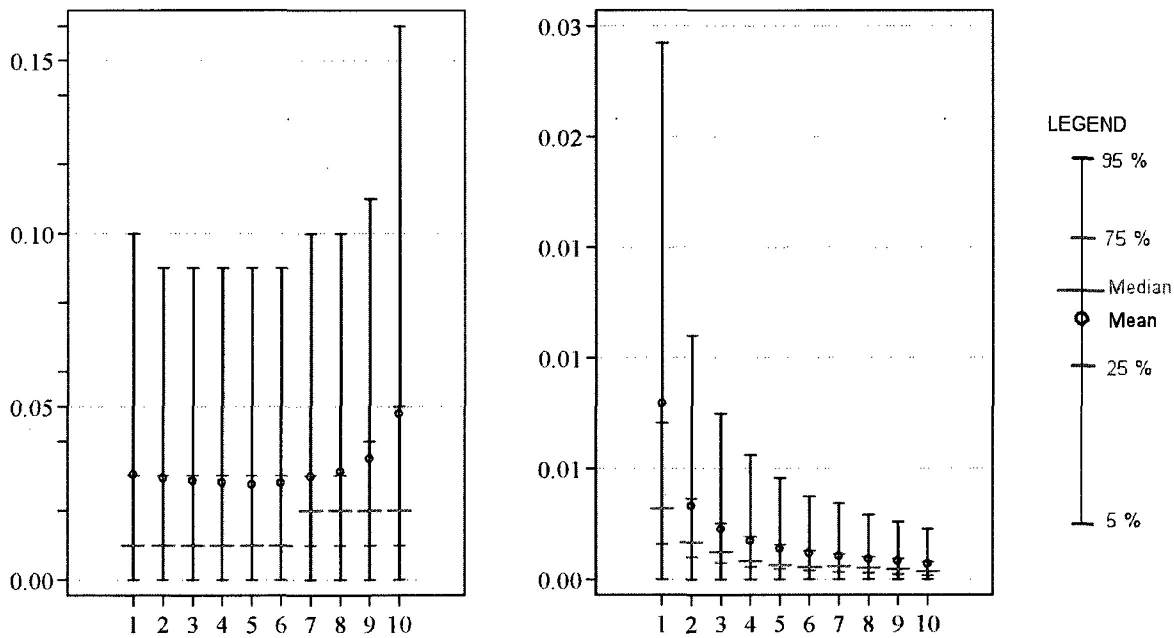
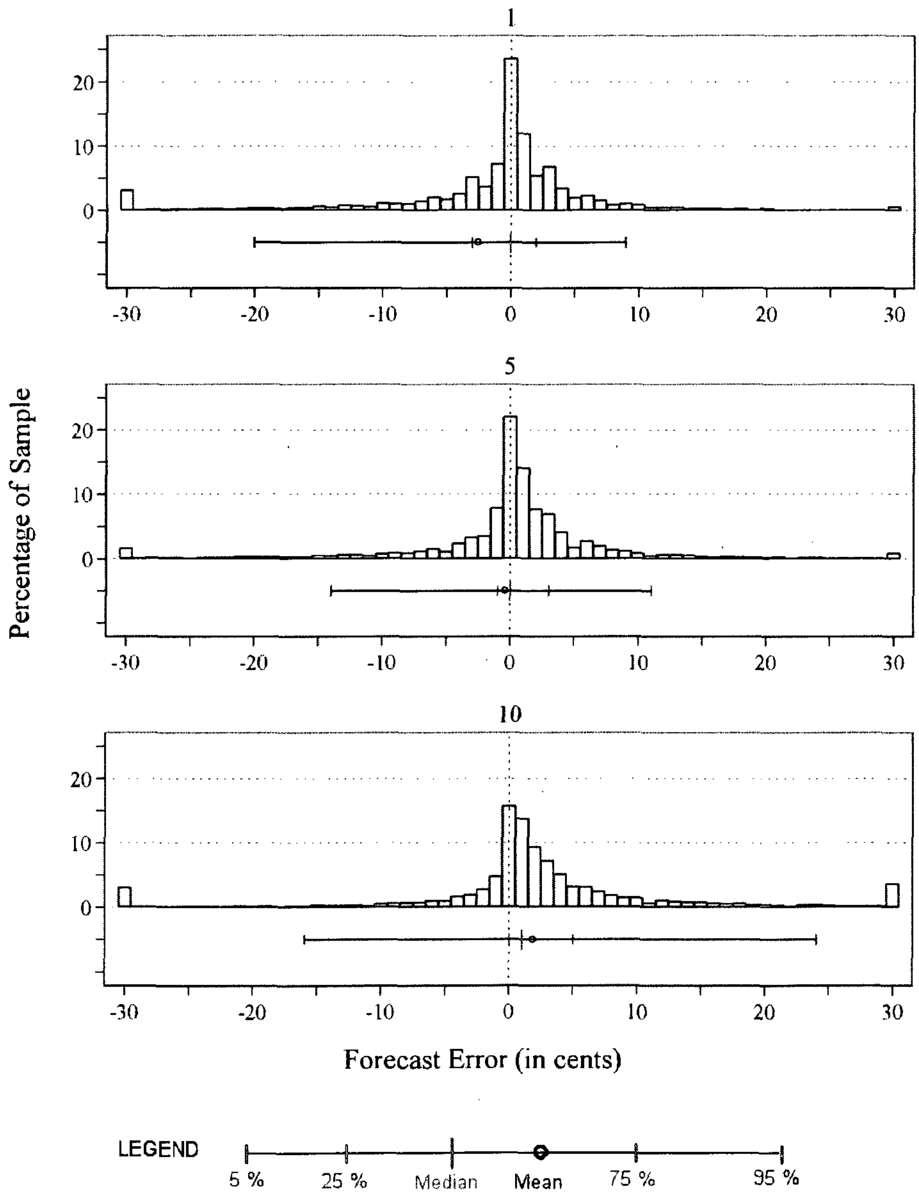


Figure 2. Histograms of forecast error and dispersion for selected *BEGPRICE* deciles

The histograms below for *FORECASTERR* and *DISPERSION* are provided for deciles 1, 5, and 10 of *BEGPRICE*, which is the beginning-of-quarter share price. Values below (above) -30 (30) cents are combined with observations in the -30 (30) cent group. The horizontal line below each histogram contains a solid circle to represent the mean, a long vertical hash mark for the median and hash marks for the 5th, 25th, 75th, and 95th percentiles. *FORECASTERR* is defined as *IBESACTUAL* minus *FORECAST*, where *IBESACTUAL* is the actual quarterly EPS (in dollars) as reported by I/B/E/S, and *FORECAST* is the most recent consensus (mean) EPS forecast (in dollars) for that firm-quarter. *DISPERSION* is the standard deviation of the *individual* analysts' EPS forecasts around the consensus in that quarter. All variables relate to firm-quarters, and are described in more detail in the Appendix A.

Panel A: Histograms for *FORECASTERR*



Panel B: Histogram for *DISPERSION*.

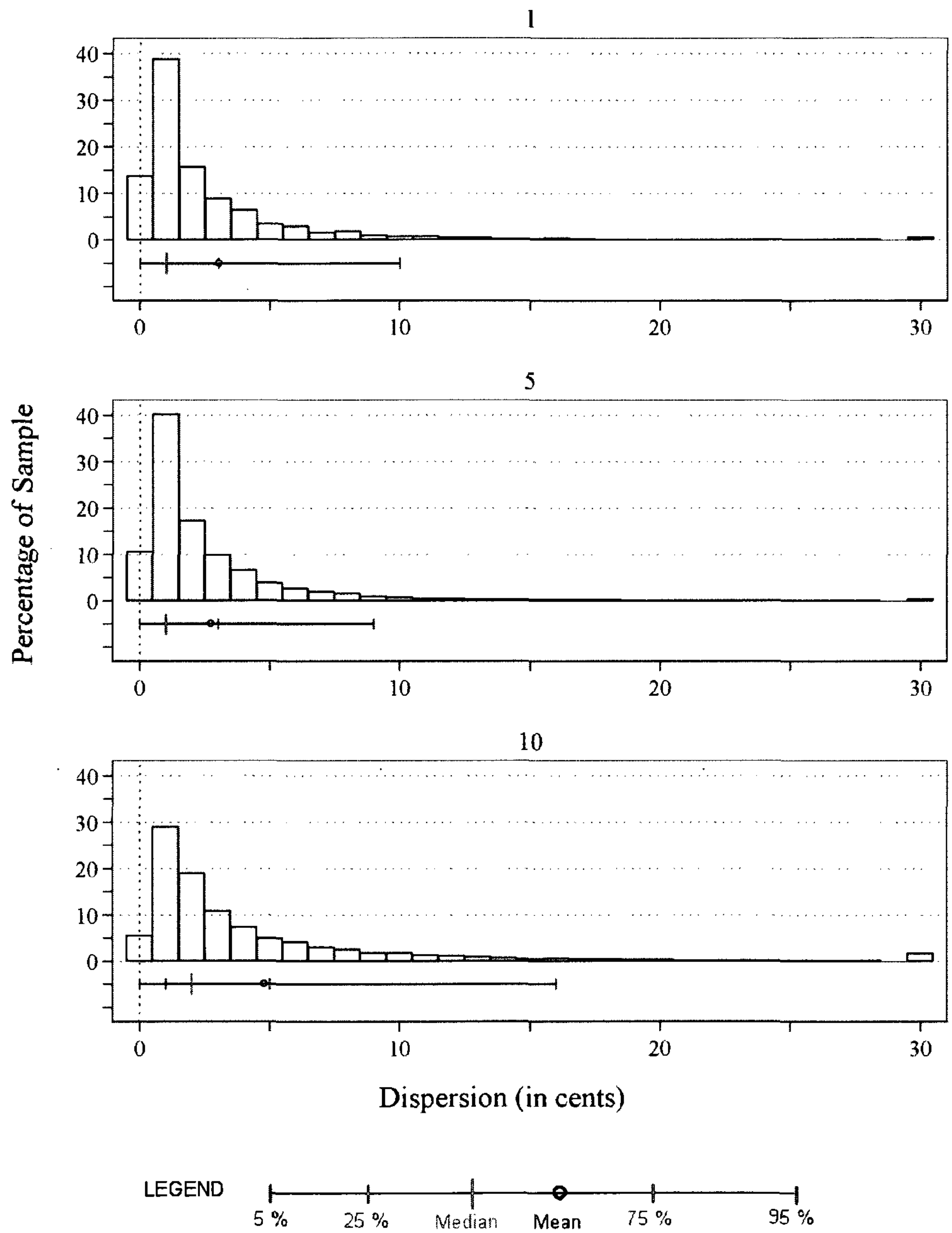
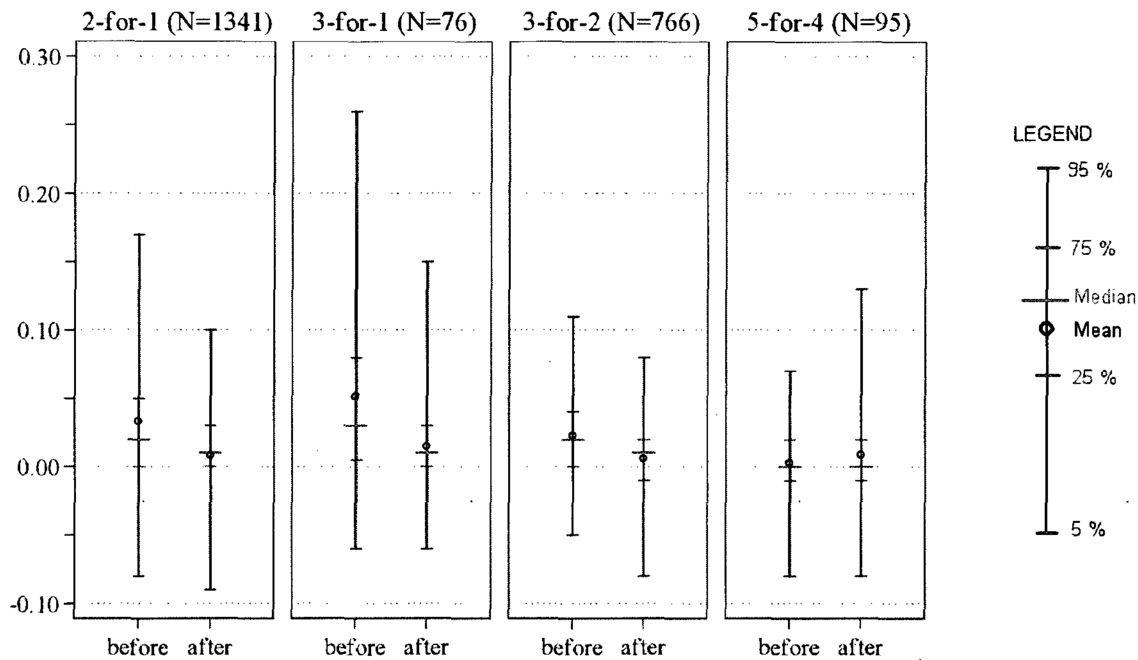


Figure 3. Distribution of forecast error and dispersion before and after stock splits

This Figure describes how the distributions of *FORECASTERR* and *DISPERSION* vary from four quarters before to four quarters after stock splits. The mean is indicated by the solid circle, the median by the long horizontal hash mark, and the remaining hash marks locate the 5th, 25th, 75th, and 95th percentiles of the pooled distributions for the different variables. *FORECASTERR* is defined as *IBESACTUAL* minus *FORECAST*, where *IBESACTUAL* is the actual quarterly EPS (in dollars) as reported by I/B/E/S, and *FORECAST* is the most recent consensus (mean) estimate (in dollars) of *IBESACTUAL* for that firm-quarter. *DISPERSION* is the standard deviation of the *individual* analysts' EPS forecasts around the consensus in that quarter. Additional details for all variables are provided in the Appendix A.

Panel A: Percentile plots of *FORECASTERR* before and after stock split (+/- 4 quarters from stock split)



Panel B: Percentile plots of *DISPERSION* before and after stock split (+/- 4 quarters from stock split)

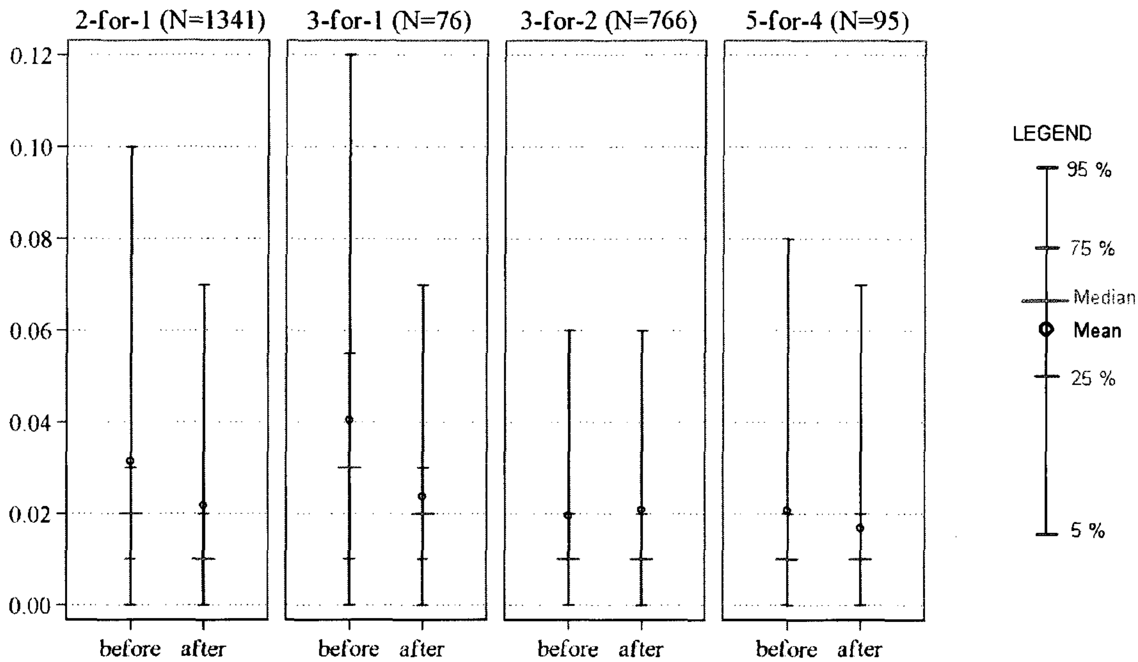


Table 1
Distribution of firm-quarter observation in each year and sector

This Table reports the number of firm-quarter observations in each year and sector. The sectors, as defined in the I/B/E/S database, are Basic Industries, Capital Goods, Consumer Durables, Consumer Non-Durables, Consumer Services, Energy, Finance, Health Care, Technology, Transportation, and Public Utilities. The sector named "Miscellaneous/Undesignated" has been deleted because only eight firm-quarters satisfied our sample requirements.

Year	Basic Ind	Capital Gds	Durables	NonDurables	Services	Energy	Finance	Health Care	Technology	Transport	Utilities	All
1993	683	779	344	474	1,239	446	1,275	991	1,098	209	584	8,122
1994	746	834	424	555	1,472	508	1,399	1,047	1,299	227	609	9,120
1995	839	841	493	528	1,521	508	1,506	1,068	1,538	262	625	9,729
1996	820	896	480	544	1,686	573	1,598	1,210	1,975	265	620	10,667
1997	855	957	475	584	2,019	617	1,517	1,430	2,392	284	667	11,797
1998	814	999	476	628	2,226	591	1,590	1,409	2,428	292	609	12,062
1999	733	894	420	589	2,242	548	1,616	1,245	2,272	267	626	11,452
2000	610	697	353	502	2,192	478	1,395	1,066	2,404	222	518	10,437
2001	509	661	303	440	1,784	521	1,320	1,241	2,406	196	484	9,865
2002	415	627	295	413	1,669	478	1,375	1,221	2,046	195	421	9,155
2003	425	598	292	457	1,621	473	1,532	1,172	1,938	209	426	9,143
2004	407	663	300	468	1,658	503	1,713	1,336	2,099	228	419	9,794
2005	440	724	337	483	1,724	542	1,962	1,516	2,114	242	419	10,503
2006	528	774	328	529	1,728	653	2,063	1,580	1,996	299	402	10,880
All	8,824	10,944	5,320	7,194	24,781	7,439	21,861	17,532	28,005	3,397	7,429	142,726

Table 2
Descriptive statistics

All variables relate to firm-quarters, and are described in more detail in the Appendix A. *IBESACTUAL* is the actual quarterly EPS (in dollars) as reported by I/B/E/S and *COMPACTUAL* is the actual quarterly EPS (in dollars) as reported by Compustat. *FORECAST* is the most recent consensus (mean) estimate (in dollars) of *IBESACTUAL* for that firm-quarter, prior to the earnings announcement. *FORECASTERR* is defined as *IBESACTUAL* minus *FORECAST*. *ABSFE* is the absolute value of *FORECASTERR*. *DISPERSION* is the standard deviation of the *individual* analysts' EPS forecasts around the consensus in that quarter. *COVERAGE* is the number of estimates that underlie the consensus *FORECAST*. *BEGPRICE* is the share price (in dollars) at the beginning-of-quarter, and *INVBEGPRC* is the inverse of *BEGPRICE*. *MEANSTALE* and *SDSTALE* are the mean and standard deviation of forecast age (in days) of individual forecasts, respectively. *COMPFE* is *COMPACTUAL* minus *FORECAST*. *DEFLABSFE*, *DEFLDISP*, and *DEFLFE* are *ABSFE*, *DISPERSION*, and *FORECASTERR* scaled by *BEGPRICE*, respectively. *VOL* is the standard deviation of stock returns over the period from day -210 to -11, relative to its fiscal quarter-end.

Panel A: Distributional statistics

Variable	*N*	*Mean*	*StdDev*	*Min*	*Q1*	*Median*	*Q3*	*Max*
ABSFE	142,726	0.06	0.22	0.00	0.01	0.02	0.06	43.03
BEGPRICE	142,726	27.1	24.0	0.0	13.4	22.5	34.9	908.0
COMPACTUAL	139,841	0.28	0.65	-35.92	0.06	0.26	0.50	24.00
COMPFE	139,841	-0.02	0.38	-35.27	-0.03	0.01	0.04	23.52
COVERAGE	142,726	7.1	5.4	1.0	3.0	5.0	9.0	44.0
DEFLABSFE	142,726	0.0043	0.0362	0.0000	0.0004	0.0011	0.0032	8.6250
DEFLDISP	142,726	0.0020	0.0128	0.0000	0.0004	0.0008	0.0018	3.5339
DEFLFE	142,726	-0.0008	0.0364	-8.6250	-0.0006	0.0003	0.0015	3.8305
DISPERSION	142,726	0.03	0.06	0.00	0.01	0.02	0.03	4.30
FORECAST	142,726	0.31	0.49	-14.96	0.08	0.26	0.49	11.22
FORECASTERR	142,726	-0.00	0.22	-43.03	-0.01	0.01	0.03	8.84
IBESACTUAL	142,726	0.30	0.55	-46.46	0.08	0.27	0.50	12.21
INVBEGPRC	142,726	0.07	0.20	0.00	0.03	0.04	0.07	50.00
MEANSTALE	142,456	77.2	47.8	0.0	46.4	68.8	96.5	720.0
SDSTALE	140,012	46.9	39.2	0.0	20.1	37.4	64.3	523.9
VOL	142,696	0.030	0.017	0.002	0.018	0.026	0.038	0.300

Panel B: Pearson (lower diagonal) and Spearman (upper diagonal) correlation

	ABSFE	*BEGPRICE*	*COMPACTUAL*	*COMPFE*	*COVERAGE*	*DEFLABSFE*	*DEFLDISP*	*DEFLFE*	*DISPERSION*	*FORECAST*	*FORECASTERR*	*IBESACTUAL*	*INVBEGPRC*	*MEANSTALE*	*SDSTALE*	*VOL*
ABSFE		0.06	0.03	0.09	-0.08	0.87	0.36	0.13	0.46	0.05	0.17	0.03	-0.06	-0.15	-0.11	-0.03
BEGPRICE	0.08		0.58	0.13	0.44	-0.36	-0.45	0.00	0.11	0.62	0.13	0.61	-1.00	-0.06	0.06	-0.45
COMPACTUAL	-0.10	0.39		0.43	0.24	-0.23	-0.28	0.19	0.05	0.93	0.26	0.95	-0.58	-0.01	0.08	-0.58
COMPFE	-0.17	0.02	0.67		0.05	0.03	-0.09	0.66	-0.02	0.19	0.69	0.30	-0.13	-0.01	-0.02	-0.12
COVERAGE	-0.03	0.34	0.14	0.00		-0.25	-0.18	0.03	0.05	0.26	0.09	0.26	-0.44	-0.02	0.14	-0.19
DEFLABSFE	0.42	-0.06	-0.14	-0.10	-0.05		0.52	0.14	0.37	-0.23	0.10	-0.24	0.36	-0.11	-0.12	0.17
DEFLDISP	0.14	-0.08	-0.14	-0.02	-0.05	0.44		-0.03	0.79	-0.27	-0.08	-0.28	0.45	-0.16	-0.09	0.16
DEFLFE	-0.31	0.02	0.11	0.15	0.02	-0.68	0.13		-0.05	0.05	0.96	0.20	-0.00	0.01	-0.03	0.00
DISPERSION	0.33	0.15	-0.08	-0.05	-0.00	0.18	0.44	-0.00		0.09	-0.02	0.06	-0.11	-0.23	-0.07	-0.11
FORECAST	-0.00	0.51	0.81	0.11	0.19	-0.10	-0.16	0.03	-0.07		0.13	0.97	-0.62	-0.01	0.09	-0.60
FORECASTERR	-0.69	0.03	0.26	0.34	0.04	-0.31	-0.01	0.43	-0.09	0.08		0.29	-0.13	-0.01	-0.03	-0.05
IBESACTUAL	-0.28	0.47	0.82	0.23	0.19	-0.21	-0.15	0.20	-0.09	0.91	0.47		-0.61	-0.01	0.09	-0.59
INVBEGPRC	0.00	-0.17	-0.10	-0.01	-0.09	0.20	0.22	-0.10	-0.01	-0.12	-0.01	-0.12		0.06	-0.06	0.45
MEANSTALE	-0.02	-0.05	-0.03	-0.02	-0.05	0.01	-0.01	-0.02	-0.11	-0.03	-0.02	-0.03	0.03		0.63	0.04
SDSTALE	-0.03	-0.00	0.02	-0.01	0.03	-0.00	-0.00	-0.01	-0.04	0.03	-0.01	0.02	-0.00	0.66		-0.07
VOL	0.03	-0.20	-0.40	-0.12	-0.14	0.10	0.10	-0.05	0.00	-0.44	-0.05	-0.41	0.16	0.06	-0.04	

Panel C: Variation across *BEGPRICE* deciles in means and medians of selected variables, reported in the top and bottom halves of each row, respectively.

Variable	**Stats**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**All**
BEGPRICE	Mean	5.1	9.1	12.8	16.3	19.9	23.9	28.5	34.6	43.7	72.5	27.1
	Median	5.2	9.2	12.9	16.4	20.0	24.0	28.4	34.3	43.0	62.1	22.5
COMPACTUAL	Mean	-0.10	-0.01	0.08	0.14	0.22	0.29	0.36	0.43	0.54	0.80	0.28
	Median	-0.02	0.06	0.13	0.20	0.25	0.32	0.37	0.44	0.54	0.71	0.26
COVERAGE	Mean	4.1	4.7	5.3	5.8	6.3	6.9	7.5	8.4	9.6	12.0	7.1
	Median	3.0	4.0	4.0	4.0	5.0	5.0	6.0	7.0	8.0	11.0	5.0
FORECAST	Mean	-0.04	0.03	0.11	0.17	0.24	0.31	0.37	0.44	0.55	0.81	0.31
	Median	0.00	0.07	0.14	0.20	0.26	0.32	0.37	0.44	0.53	0.72	0.26
IBESACTUAL	Mean	-0.07	0.02	0.10	0.16	0.24	0.31	0.37	0.44	0.56	0.83	0.30
	Median	-0.01	0.07	0.14	0.20	0.26	0.32	0.38	0.45	0.54	0.72	0.27

Table 3

Distributional statistics for forecast error and dispersion in each *BEGPRICE* decile

This Table reports the mean, median, standard deviation (StdDev), inter-quartile range (QRange), and the number of observations (N) for distributions of forecast error, absolute forecast error, and forecast dispersion for different deciles of *BEGPRICE*, which is the beginning-of-quarter share price (in dollars). Price deciles are computed each calendar quarter, and the lowest (highest) price decile is denoted by 1 (10). *FORECASTERR* is defined as *IBESACTUAL* minus *FORECAST*, where *IBESACTUAL* is the actual quarterly EPS (in dollars) as reported by I/B/E/S, and *FORECAST* is the most recent consensus (mean) estimate (in dollars) of *IBESACTUAL* for that firm-quarter. *COMPFE* is *COMPACTUAL* minus *FORECAST*, where *COMPACTUAL* is the actual quarterly EPS (in dollars) as reported by Compustat. *ABSFE* is the absolute value of *FORECASTERR*. *DISPERSION* is the standard deviation of the *individual* analysts' EPS forecasts around the consensus in that firm-quarter. *DEFLFE*, *DEFLABSFE*, and *DEFLDISP* are defined as *FORECASTERR*, *ABSFE*, and *DISPERSION* scaled by *BEGPRICE*, respectively. Additional details for all variables are provided in the Appendix A.

Panel A1: Distributional statistics for *FORECASTERR* in each *BEGPRICE* decile

	1	2	3	4	5	6	7	8	9	10	All
Mean	-0.02	-0.01	-0.01	-0.00	-0.00	-0.00	0.00	0.01	0.01	0.02	-0.00
Median	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01
StdDev	0.24	0.17	0.18	0.15	0.20	0.20	0.16	0.40	0.16	0.27	0.22
QRange	0.05	0.04	0.05	0.05	0.04	0.04	0.04	0.04	0.05	0.05	0.04
N	12,227	13,917	14,014	14,332	14,379	14,601	14,937	14,964	15,066	14,289	142,726

Panel A2: Distributional statistics for *COMPFE* in each *BEGPRICE* decile

	1	2	3	4	5	6	7	8	9	10	All
Mean	-0.06	-0.05	-0.03	-0.02	-0.02	-0.01	-0.01	-0.00	-0.00	0.00	-0.02
Median	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01
StdDev	0.34	0.49	0.31	0.30	0.28	0.36	0.36	0.32	0.36	0.58	0.38
QRange	0.07	0.08	0.07	0.06	0.07	0.07	0.07	0.08	0.09	0.11	0.07
N	12,027	13,742	13,771	14,106	14,096	14,324	14,634	14,610	14,727	13,804	139,841

Panel A3: Distributional statistics for *DEFLFE* in each *BEGPRICE* decile

	1	2	3	4	5	6	7	8	9	10	All
Mean	-0.0066	-0.0016	-0.0009	-0.0003	-0.0002	-0.0000	0.0002	0.0001	0.0003	0.0003	-0.0008
Median	0.0000	0.0000	0.0000	0.0005	0.0004	0.0004	0.0003	0.0003	0.0002	0.0002	0.0003
StdDev	0.1191	0.0209	0.0143	0.0092	0.0101	0.0086	0.0053	0.0112	0.0036	0.0032	0.0364
QRange	0.0102	0.0053	0.0036	0.0028	0.0021	0.0017	0.0015	0.0013	0.0011	0.0008	0.0021
N	12,227	13,917	14,014	14,332	14,379	14,601	14,937	14,964	15,066	14,289	142,726

Panel B1: Distributional statistics for *ABSFE* in each *BEGPRICE* decile

	1	2	3	4	5	6	7	8	9	10	All
Mean	0.07	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.07	0.09	0.06
Median	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.02
StdDev	0.23	0.16	0.17	0.14	0.20	0.19	0.15	0.40	0.15	0.25	0.22
QRange	0.05	0.05	0.05	0.05	0.05	0.04	0.05	0.05	0.06	0.07	0.05
N	12,227	13,917	14,014	14,332	14,379	14,601	14,937	14,964	15,066	14,289	142,726

Panel B2: Distributional statistics for *DEFLABSFE* in each *BEGPRICE* decile

	1	2	3	4	5	6	7	8	9	10	All
Mean	0.0185	0.0067	0.0047	0.0035	0.0028	0.0023	0.0019	0.0018	0.0015	0.0013	0.0043
Median	0.0051	0.0027	0.0018	0.0014	0.0011	0.0009	0.0008	0.0007	0.0006	0.0005	0.0011
StdDev	0.1178	0.0199	0.0135	0.0085	0.0097	0.0083	0.0049	0.0110	0.0033	0.0030	0.0362
QRange	0.0114	0.0054	0.0038	0.0029	0.0024	0.0019	0.0017	0.0014	0.0013	0.0011	0.0028
N	12,227	13,917	14,014	14,332	14,379	14,601	14,937	14,964	15,066	14,289	142,726

Panel C1: Distributional statistics for *DISPERSION* in each *BEGPRICE* decile

	1	2	3	4	5	6	7	8	9	10	All
Mean	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.05	0.03
Median	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02
StdDev	0.07	0.06	0.05	0.06	0.04	0.05	0.05	0.05	0.06	0.09	0.06
QRange	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.04	0.02
N	12,227	13,917	14,014	14,332	14,379	14,601	14,937	14,964	15,066	14,289	142,726

Panel C2: Distributional statistics for *DEFLDISP* in each *BEGPRICE* decile

	1	2	3	4	5	6	7	8	9	10	All
Mean	0.0079	0.0033	0.0023	0.0017	0.0014	0.0012	0.0010	0.0009	0.0008	0.0007	0.0020
Median	0.0032	0.0017	0.0013	0.0008	0.0007	0.0006	0.0006	0.0005	0.0005	0.0004	0.0008
StdDev	0.0421	0.0068	0.0037	0.0037	0.0020	0.0020	0.0018	0.0016	0.0013	0.0012	0.0128
QRange	0.0055	0.0026	0.0018	0.0014	0.0011	0.0009	0.0008	0.0007	0.0007	0.0006	0.0015
N	12,227	13,917	14,014	14,332	14,379	14,601	14,937	14,964	15,066	14,289	142,726

Table 4
Extension of analyses in Tables 3 and 4 of Thomas [2002] to show price deflation effect

Panel A reports the Pearson (Spearman) correlation of selected variables from Thomas [2002] in the lower (upper) diagonal. Panel B (C) reports a partial view of the regression results based on Table 3 (Table 4) of Thomas [2002], which investigates the relation between absolute forecast error (forecast dispersion) and diversification. Absolute forecast error (*AFE*) and dispersion are measured as |*IBESACTUAL – median FORECAST*| and standard deviation of analyst forecasts. When scaled by *PRICE5*, which is share price five days before the annual earnings announcement, we denote them as *DEFLATAFE* and *DEFLATDISP*. Diversification is measured by *HERF*, which is the Herfindahl Index, based on assets reported for different segments. A smaller value of *HERF* represents more diversification or more balanced asset investments spread across more segments. *RESIDVOL*, measured as the standard deviation of the market model residuals over the period from 210 to 11 days before the earnings announcement date, is a control variable that is included in equation (5) in both Panels. See Thomas [2002] for more details. Specification I refers to the regressions estimated in the original study. Specification II includes the inverse of *PRICE5* (*INVPRICE5*) as an additional regressor. Specification III returns to specification I but considers undeflated values of the dependent variables. Specification IV adds price as an additional regressor to specification III. Associated White [1980] t-statistics are reported in parentheses below each coefficient estimate, and significance at the 10%, 5%, and 1% levels are indicated by *, **, and ***, respectively.

Panel A: Pearson (lower diagonal) and Spearman (upper diagonal) correlation

	AFE	*DEFLATAFE*	*DISP*	*DEFLATDISP*	*PRICE5*	*INVPRICE5*	*HERF*	*RESIDVOL*
AFE		0.89	0.45	0.48	-0.13	0.13	-0.10	0.12
DEFLATAFE	0.56		0.32	0.63	-0.54	0.54	0.03	0.39
DISP	0.50	0.14		0.75	0.14	-0.14	-0.25	-0.17
DEFLATDISP	0.27	0.53	0.49		-0.51	0.51	-0.03	0.30
PRICE5	0.10	-0.26	0.29	-0.25		-1.00	-0.29	-0.69
INVPRICE5	0.04	0.58	-0.09	0.52	-0.48		0.29	0.69
HERF	-0.09	0.06	-0.17	0.03	-0.26	0.18		0.40
RESIDVOL	0.05	0.42	-0.11	0.35	-0.47	0.64	0.34	

Panel B: Selected coefficients from regressions based on Table 3 of Thomas [2002].

Specification Dep. Var.	Variable	Equation				
		(1)	(2)	(3)	(4)	(5)
I *DEFLATAFE*	*HERF*	2.55 (8.65)***	0.91 (2.73)***	0.95 (2.88)***	0.86 (2.49)**	-1.02 (3.14)***
	RESIDVOL					4.37 (22.82) ***
II *DEFLATAFE*	*HERF*	-1.40 (5.13)***	0.45 (1.59)	0.47 (1.65)*	0.35 (1.19)	-0.36 (1.20)
	INVPRICE5	67.01 (24.11)***	71.55 (22.73)***	70.38 (22.09)***	70.27 (22.05)***	56.28 (17.11)***
	RESIDVOL					1.89 (11.46) ***
III *AFE*	*HERF*	-0.2701 (7.10)***	0.0139 (0.30)	0.0154 (0.33)	-0.0021 (0.04)	-0.0861 (1.84)*
	RESIDVOL					0.1955 (18.52)***
IV *AFE*	*HERF*	-0.1954 (4.35)***	0.0159 (0.33)	0.0209 (0.43)	0.0049 (0.10)	-0.0737 (1.56)
	PRICE5	0.0031 (3.10)***	0.0004 (0.36)	0.0011 (0.97)	0.0013 (1.16)	0.0038 (3.32)***
	RESIDVOL					0.2151 (16.98)***

Panel C: Selected coefficients from regressions based on Table 4 of Thomas [2002].

Specification Dep. Var.	Variable	Equation				
		(1)	(2)	(3)	(4)	(5)
I *DEFLATDISP*	*HERF*	0.29 (5.49)***	0.17 (2.66)***	0.18 (2.84)***	0.13 (2.01)**	-0.16 (2.83)***
	RESIDVOL					0.68 (25.54) ***
II *DEFLATDISP*	*HERF*	-0.39 (7.85)***	0.09 (1.63)	0.09 (1.75)*	0.04 (0.76)	-0.04 (0.74)
	INVPRICE5	11.53 (21.12)***	12.57 (20.39)***	12.18 (19.80)***	12.12 (19.72)***	10.52 (15.51)***
	RESIDVOL					0.22 (7.75) ***
III *DISP*	*HERF*	-0.1401 (16.02)***	-0.0062 (0.57)	-0.0060 (0.55)	-0.0124 (1.15)	-0.0228 (2.15)**
	RESIDVOL					0.0241 (12.31)***
IV *DISP*	*HERF*	-0.0766 (7.37)***	0.0017 (0.15)	0.0032 (0.28)	-0.0022 (0.20)	-0.0153 (1.43)
	PRICE5	0.0026 (11.61)***	0.0016 (6.07)***	0.0018 (6.83)***	0.0019 (7.15)***	0.0023 (8.82)***
	RESIDVOL					0.0360 (13.86)***

Table 5
Distributional statistics for forecast error and dispersion before and after stock splits

This Table describes how the distributions of *FORECASTERR* and *DISPERSION* vary from four quarters before to four quarters after stock splits (Panels A and B), and one quarter before to sixteen quarters after stock splits (Panels C and D). We report the mean, median, standard deviation (StdDev), inter-quartile range (QRange), and the number of observations (N) for the distributions of *FORECASTERR* and *DISPERSION*. *FORECASTERR* is defined as *IBESACTUAL* minus *FORECAST*, where *IBESACTUAL* is the actual quarterly EPS (in dollars) as reported by I/B/E/S, and *FORECAST* is the most recent consensus (mean) estimate (in dollars) of *IBESACTUAL* for that firm-quarter. *DISPERSION* is the standard deviation of the *individual* analysts' EPS forecasts around the consensus in that firm-quarter. Additional details for all variables are provided in the Appendix A.

Panel A: Distributional statistics for *FORECASTERR* before and after stock split (+/- 4 quarters from stock split)

	2 for 1 split		3 for 1 split		3 for 2 split		5 for 4 split	
	pre-split	post-split	pre-split	post-split	pre-split	post-split	pre-split	post-split
Mean	0.03	0.01	0.05	0.01	0.02	0.01	0.00	0.01
Median	0.02	0.01	0.03	0.01	0.02	0.01	0.00	0.00
StdDev	0.15	0.08	0.09	0.07	0.06	0.07	0.10	0.05
QRange	0.05	0.03	0.08	0.03	0.04	0.03	0.03	0.03
N	1,341	1,341	76	76	766	766	95	95

Panel B: Distributional statistics for *DISPERSION* before and after stock split (+/- 4 quarters from stock split)

	2 for 1 split		3 for 1 split		3 for 2 split		5 for 4 split	
	pre-split	post-split	pre-split	post-split	pre-split	post-split	pre-split	post-split
Mean	0.03	0.02	0.04	0.02	0.02	0.02	0.02	0.02
Median	0.02	0.01	0.03	0.02	0.01	0.01	0.01	0.01
StdDev	0.05	0.03	0.04	0.02	0.02	0.07	0.04	0.02
QRange	0.02	0.01	0.05	0.02	0.01	0.01	0.01	0.01
N	1,341	1,341	76	76	766	766	95	95

Panel C: Distributional statistics for *FORECASTERR* before and after stock split (-1 to +16 quarters from stock split)

	2 for 1 split		3 for 1 split		3 for 2 split		5 for 4 split	
	pre-split	post-split	pre-split	post-split	pre-split	post-split	pre-split	post-split
Mean	-0.01	0.01	0.02	0.04	0.01	-0.00	-0.01	-0.00
Median	0.02	0.01	0.03	0.02	0.02	0.01	0.00	0.00
StdDev	0.23	0.16	0.35	0.13	0.13	0.10	0.09	0.05
QRange	0.06	0.03	0.11	0.05	0.04	0.03	0.04	0.02
N	1,109	1,109	68	68	640	640	85	85

Panel D: Distributional statistics for *DISPERSION* before and after stock split (-1 to +16 quarters from stock split)

	2 for 1 split		3 for 1 split		3 for 2 split		5 for 4 split	
	pre-split	post-split	pre-split	post-split	pre-split	post-split	pre-split	post-split
Mean	0.03	0.03	0.05	0.03	0.02	0.02	0.02	0.01
Median	0.02	0.01	0.03	0.01	0.01	0.01	0.01	0.01
StdDev	0.06	0.13	0.05	0.03	0.02	0.02	0.02	0.01
QRange	0.02	0.01	0.07	0.02	0.01	0.01	0.01	0.01
N	1,109	1,109	68	68	640	640	85	85