Learning About Income Inequality: Long-Run Evidence from Pay Ratio Disclosures*

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Abstract - This study reconciles conflicting recent evidence on the relation between CEO-worker pay ratio and firm value. Consistent with the evidence in Pan et al. (2022), first-time high pay ratio disclosures of U.S. public companies generate negative announcement returns, but returns exhibit a reversal within three months and become positive, especially among firms with high inequality averse institutional shareholders. High pay ratio firms also have stronger operating performance, consistent with the view that high pay ratios reflect managerial talent (Mueller et al., 2017). The market learns about the positive pay ratio-talent relation after three disclosures and subsequently reacts positively to high pay ratio announcements. While sell-side analysts issue more pessimistic and inaccurate forecasts for these firms, generating stronger earnings surprises, institutional investors progressively overweight high pay-ratio firms, where local investors exhibit quicker weight adjustments. A trading strategy that exploits market's underreaction to pay ratio disclosures generates an annualized alpha of over 8%.

Keywords: Income inequality, CEO-worker pay ratio, return reversal, institutional investors, sell-side analysts, local bias.

JEL classification: G12, G14, G23, J31.

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Learning About Income Inequality: Long-Run Evidence from Pay Ratio Disclosures

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Abstract - Recent studies on CEO-worker pay ratios find conflicting evidence of their effect on firm value. Our paper reconciles these findings by examining the long-run market performance following pay ratio disclosures of U.S. public companies. Consistent with the evidence in Pan et al. (2022), first-time high pay ratio disclosures generate negative announcement returns, but returns exhibit a reversal within three months and become positive, especially among firms with high inequality averse institutional shareholders. The market learns about the positive pay ratio-talent relation after three disclosures and reacts positively to high pay ratio disclosures. High pay ratio firms also have stronger operating performance, consistent with the view that high pay ratios reflect managerial talent (Mueller et al., 2017). While sell-side analysts issue more pessimistic and inaccurate forecasts for these firms, generating stronger earnings surprises, institutional investors progressively overweight high pay-ratio firms, where local investors exhibit quicker weight adjustments. A trading strategy that exploits market's underreaction to pay ratio disclosures generates an annualized alpha of over 8%.

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"I think it is appropriate to ask whether [the extent and continuing increase in inequality in the United States] is compatible with values rooted in our nation's history, among them the high value Americans have traditionally placed on equality of opportunity".

– Janet Yellen, Federal Reserve Chairwoman

1 Introduction

Income inequality in the United States is on the rise.[1] Lying at the center of an intense policy debate over income inequality is the increasing pay gap between top managers and median workers.[2] In his seminal work "Capital in the Twenty-First Century" - Thomas Piketty points out that "*[Compared to other countries] Income from labor [in the United States] is about as unequally distributed as has ever been observed anywhere.*"

One of the major hurdles for empirical research on pay gap and income inequality is the lack of publicly available data on rank-and-file workers' compensation in the U.S.[3] The Securities and Exchange Commission (SEC) adopted a new rule, effective January 1, 2017, that requires U.S. companies to disclose the ratio of CEO pay to the median employee wage. Despite being one of the most controversial rules resulting from the Dodd-Frank reform following the financial crisis, the rule provides data to directly examine market's perceptions toward inequality in the U.S., where income inequality has persistently widened in comparison to European countries.

In a recent study, exploiting this unique pay ratio dataset, Pan et al. (2022) finds that firms experience negative abnormal announcement-returns when disclosing high pay ratios for the first time. This evidence suggests that the market perceives high pay ratio firms negatively. But how do firms with high pay ratios perform in the long run? Does the stock market react differently to this information over time? And do investors learn from

[1] Income inequality has evolved in the United States over several decades, with a pronounced increase after the year 2000. By 2022, the top 1% of earners accounted for 20% of total income, whereas the bottom 50% contributed only 10%. Source: World Income Inequality Database

[2] In 2022, among the 350 largest publicly owned U.S. firms by revenue, CEOs were paid 344 times as much as a typical worker, in contrast to 1965 when they were paid 21 times as much as a typical worker. Source: Economic Policy Institute (Bivens and Kandra, 2023)

[3] Prior work on the pay gap has mainly used proprietary datasets of firm-specific information on worker salaries outside of the US. For example, Mueller et al. (2017) use data from the UK and Alvarez et al. (2018) study pay ratio in Brazil.

the information contained in the pay ratio? In this paper, we examine these questions.

We begin our analysis by studying the stock market's initial reaction to pay ratio disclosures. Consistent with Pan et al. (2022), we find an initial negative market response to firms with high pay ratios over a five-day event window. Further, firms with more inequality-averse investors face greater investor scrutiny when disclosing high pay ratios, suggesting that investors are concerned about firm-level income inequality following first-time pay disclosure.

The short-term event window mostly captures the equity market's immediate reaction to pay ratio disclosures. Much of this initial response is driven by concerns about income inequality. However, in the long run, are high pay-ratio firms inherently bad? There is an ongoing debate among both academics and practitioners regarding the motives behind the widening pay gap.

On the one hand, the *managerial talent hypothesis* posits that high executive pay is justified, either as a means to attract scarce and highly productive managerial talent or as a reward for strong firm performance (e.g., Terviö (2008), Gabaix and Landier (2008), Edmans et al. (2009), Edmans and Gabaix (2011)). On the other hand, the *rent extraction perspective* conjectures that executives have significant influence over their own compensation structures, setting pay levels to maximize personal gain rather than aligning with firm performance (e.g., Bertrand and Mullainathan (2001), Bebchuk et al. (2002), Bebchuk and Fried (2006), Bebchuk et al. (2011)). More recent research suggests that high pay inequality does not hinder, but in fact, enhances firm performance (e.g., Mueller et al. (2017), Dittmann et al. (2023)).

To test these hypotheses directly, we first examine the relation between pay ratios and operating performance. Using several performance measures including ROA, the standard deviation of ROA, and profit margin, we estimate a panel regression while controlling for firm-specific characteristics and *Indsutry* $\times$ *Year* fixed effect. Consistent with prior literature supporting the managerial talent view of high pay ratio, we find that high pay ratios are associated with stronger operating performance. Specifically, high pay-ratio firms exhibit higher ROA, higher profit margins, and lower risk-taking, as reflected in a lower standard deviation of ROA.

A natural question that arises is whether investors, who initially underestimate high pay-ratio firms, eventually recognize the value of these firms in the long run. To examine this possibility, we first study the market reaction over the 250 trading days following the first pay ratio disclosure. Our findings reveal that the initial negative reaction persists strongly for the first 60 days but begins to reverse after approximately 100 days. Interestingly, high inequality-averse investors, who initially react more negatively to the first disclosure, reverse their position more quickly and with a larger magnitude.

To better understand how investors adjust their views on high pay-ratio firms over the long run, we extend our analysis to the second, third, and fourth annual pay-ratio disclosures. Since long-run operating performance is not immediately observable, we expect the market to take time to incorporate this information. We find that it takes two disclosures for all investors to recognize the strong performance of high pay-ratio firms. By the third and fourth disclosure events, the market is able to fully incorporate this information, and high pay-ratio firms earn positive abnormal returns around pay ratio announcements.

To further examine the long-term return performance, we estimate a panel regression, where we regress monthly excess returns after disclosures on pay ratios. Our results show that, in contrast to the initial negative market reaction observed during the five-day announcement window, firms with high pay ratios generate higher long-run returns. This relation remains robust after accounting for firm specific characteristics and *Industry* $\times$ *Year* fixed effects. This evidence suggests that the market initially overreacts to high pay ratios, triggering a negative response, but subsequently corrects the pricing as investors learn that high pay ratios are associated with stronger operating performance.

Next, we conduct a cross-sectional test to investigate how investors with different levels of inequality aversion interpret and respond to pay ratios in the long run. Our graphical evidence in Figure 4, based on Google Search intensity data, reveals significant differences in attention to income inequality across the U.S. states. Specifically, we observe higher search volumes for keywords including *Income Inequality*, *Wealth Inequality*, and *Pay Ratios* in states with higher levels of inequality aversion. We conjecture that the degree of attention given to pay ratio information is significantly influenced by inequality aversion.

To determine whether market reactions to firms come from a cash flow effect, which reflects attitudes from employees and other stakeholders, or from investor demand, we follow Pan et al. (2022) and construct two measures of inequality aversion: *Inequality Aversion at Headquarters*, denoted as *IA: HQ* and *Inequality Aversion at Investors' Location*, denoted as *IA: Investors*. The first measure captures the cash flow effect at the firm's corporate headquarters, while the latter measure reflects investor-driven demand.

We test our hypothesis by extending our return regression to include interactions with two inequality aversion measures. We find that firms with investors exhibiting higher inequality aversion achieve even higher long-run returns. This evidence suggests that the long-term superior performance of high pay ratio firms is more likely to be driven by investor demand rather than firm cash flows.

We further examine the operating performance of firms exposed to varying levels of inequality aversion, both in the headquarters state and around investor locations. Consistent with the return patterns observed earlier, we find that firms with higher *IA: Investors* demonstrate stronger performance, as reflected in higher ROA, lower ROA volatility, and higher profit margins. In contrast, we do not observe a significant difference in performance among firms with varying levels of *IA: HQ*. These findings support the idea that investor demand serves as the key channel for both performance and returns of high pay-ratio firms.

To evaluate whether the positive relation between pay ratio and long-run returns reflects managerial talent, we re-estimate our return regressions after adding a managerial ability measure in the specification. The results confirm our main findings: firms with higher pay ratios earn higher returns, and investors with stronger inequality aversion place even greater value on these firms. We also find that firms led by managers with higher talent generate higher long-run returns, suggesting that managerial talent does indeed contribute to performance. However, inequality-averse investors find it more difficult to recognize the value associated with managerial talent compared to the more visible signal provided by pay ratios. This may occur because pay ratio information is more readily observable and easier to interpret than managerial ability.

We also examine inequality aversion at the operational level rather than the headquarters state level, based on the argument that firms often operate in multiple locations and may be more visible to stakeholders around their operations. Using a weighted average of inequality aversion across all operational locations of firms, we find that our main results remain robust. Firms with greater exposure to stakeholders in high inequality-averse regions experience stronger long-run returns.

Next, we explore whether sell-side equity analysts are aware of the performance-return relation for high pay-ratio firms. Our findings indicate that analysts are more pessimistic about firms with high pay ratios compared to those with lower pay ratios, leading to lower forecast accuracy for high pay-ratio firms. Further, we find no significant difference in forecast accuracy between local and non-local analysts. This evidence suggests that, compared to institutional investors, analysts are relatively less informed about high pay-ratio firms, potentially contributing to the slower market reaction. In particular, potentially better informed local analysts do not appear to leverage their proximity advantage effectively, offering no additional value in interpreting pay ratio information.

To further investigate the source of mispricing of high pay ratio firms, we examine earnings surprises. Given analysts' pessimism toward high pay-ratio firms, we conjecture that they fail to recognize the strong performance of high pay ratio firms, and are surprised when actual earnings are announced. Using analysts' quarterly earnings forecast consensus as a proxy for market expectations, we find that high pay-ratio firms experience larger earnings surprises. This evidence suggests that the market underestimates these firms and is subsequently positively surprised by their performance.

To understand the role of investor demand in affecting stock retunrs, we analyze the behavior of institutional investors. Our first evidence of institutional investor demand for high pay-ratio firms comes from their share purchasing patterns. We examine changes in shareholdings, $\Delta Share$, measured as the percentage difference in the number of shares reported between the end of the current quarter and the end of the previous quarter.

We observe that institutional investors initially reduce their shareholdings during the first quarter when pay ratios are disclosed. However, in the subsequent three quarters, institutional investors, on average, increase their shares in high pay-ratio firms. Institutional investors in states with higher inequality aversion increase shareholdings in high pay-ratio firms even more, starting in the second quarter after disclosure. These results suggest that high inequality-averse investors gradually learn about the performance of high pay-ratio firms and are more active in trading, compared to the average investor.

The literature on local bias highlights that investors have preferences for geographically proximate firms, paying greater attention to companies near their locations (e.g. Bernile et al. (2015), Korniotis et al. (2020)). We expect local institutional investors to be faster learners if their geographical location provides them with superior and timely information about firm performance. Our results support the local bias hypothesis, as local institutional investors trade more actively. Including interactions with both local institutional investors and highly inequality-averse investors in one specification, we find that the effect is more strongly driven by local institutional investors. Their geographical proximity perhaps accelerates the learning process, allowing investors to recognize and act on the performance of high pay-ratio firms more quickly, compared to their non-local counterparts.

In the last set of tests, we examine the impact of pay ratios on institutional investors' portfolio weights. Our results reveal that institutional investors tend to overweigh high pay-ratio firms not only during the disclosure quarter, but also for up to three quarters afterwards. This effect is particularly pronounced among high inequality-averse investors. In addition, we find the strongest results among local institutional investors, who exhibit the strongest tendency to overweigh high pay-ratio firms. This finding reinforces our initial evidence, further supporting the notion that local investors are more active in trading high pay-ratio firms as they learn more quickly.

To establish a connection between institutional investor demand and long-run returns, we re-estimate the baseline panel return regression and include an interaction term with changes in shareholdings, $\Delta Share$. Our results indicate that institutional investor demand strengthens the positive relation between pay ratios and long-run returns. By increasing their shareholdings in these firms, institutional investors contribute to the upward movement in returns over time.

In addition to our main findings, we conduct a series of robustness checks and explore alternative explanations. First, we evaluate whether the return premium observed for high pay ratio firms represents compensation for risk or evidence of mispricing. By estimating multiple factor models and augmenting our return regressions with additional controls for valuation and firm-specific risk, we find that the abnormal returns persist, suggesting that the effect is not fully explained by risk and may instead reflect temporary mispricing. Second, we investigate whether the performance of high pay ratio firms stems from managerial talent or cost-cutting through lower worker pay. Our extended analyses, which include interactions with managerial ability and decompositions of the pay ratio components, indicate that managerial talent is the primary driver of both stronger operating performance and higher future returns. Third, we examine how the market processes pay ratio disclosures over time. Our event study shows that high pay ratio firms experience a significantly negative reaction at the time of the first disclosure, but this effect diminishes and becomes significantly positive by the second and third disclosures, reinforcing the notion of a market learning process as investors become increasingly familiar with and better able to interpret pay ratio information. Finally, we explore institutional investor behavior and demonstrate that portfolio adjustments are not solely the result of price changes but reflect active rebalancing decisions. When using fixed stock prices, we find that institutions initially reduce their exposure to high pay ratio firms but later increase their holdings after subsequent disclosures, indicating a shift in perception as the information becomes better understood over time.

These results contribute to several strands of finance literature. Specifically, our research is closely related to recent papers on pay inequality (e.g., Mueller et al. (2017), Faleye et al. (2013), Dittmann et al. (2023)). While these papers also document a positive association between pay ratios and firm performance, they investigate the relation in different settings.[4] Our paper extends this literature by showing that high pay ratios can predict long-run firm performance in the U.S. market.

Our paper also contributes to the well-established literature seeking to understand CEO pay. Some studies posit that CEO compensation is excessive due to CEO's rent-extracting tendencies (e.g., Bebchuk et al. (2011), Bebchuk and Fried (2006)). Others conjecture that high CEO pay serves as a reward for managerial talent (e.g., Terviö (2008), Gabaix and Landier (2008), Edmans et al. (2009)). Our findings align with the notion that pay inequality within firms reflect managerial talent, as evidenced by stronger long-term operating performance.

Last, our paper provides empirical support for the behavioral asset pricing literature, particularly regarding market participants' attitudes toward social issues such as income inequality. Pan et al. (2022) show that the equity market reacts negatively to pay ratios. We find that while the market initially overreacts to high pay ratios following the first disclosure, it gradually corrects as investors recognize that firms with higher pay ratios have strong long-run performance. By emphasizing this long-run reversal, our study provides a crucial time-series perspective on the initial negative market reaction to high pay ratios documented in Pan et al. (2022).

The remainder of the paper is organized as follows. Section 2 describes the data and presents summary statistics. Section 3 outlines our empirical findings on the relation between pay ratios and long-run firm performance. Section 4 examines how analysts and institutional investors respond to pay ratio information. Finally, Section 6 concludes with a summary of our key findings.

2 Data and Summary Statistics

In this section, we describe our main data sources and present summary statistics. Appendix A1 provides the definitions of all variables.

[4] Mueller et al. (2017) focus on the UK market. Dittmann et al. (2023) examine the German market. Faleye et al. (2013) focus on firms that voluntarily disclose total compensation expenses only.

2.1 Pay Ratios Data

We collect pay ratio data as well as CEO Pay and Median Employee Pay, from Equilar for firms in the Russell 3000 index over the 2017–2023 period. Certain firms are exempt from disclosing pay ratios under SEC regulations, resulting in fewer than 3,000 observations per year. We merge the pay ratio data with Compustat and CRSP for firm-specific characteristics and stock-level information using tickers. After merging, our final sample consists of 13,291 pay ratio disclosures from 2,411 unique firms.

Table 1 shows the summary statistics for the different datasets used in the analysis. Panel A provides information on the pay ratios for the Russell 3000 firms. The *Pay Ratio* has a mean of 174.44 and a standard deviation of 522.34, suggesting that, on average, CEO pay is approximately 175 times higher than the median employee pay in our sample. To avoid the effect of outliers, most of our empirical analysis uses the natural logarithm of the pay ratio as the main independent variable. Specifically, we define *Ln(PR)* as Ln(1 + Pay Ratio). *Ln(PR)* exhibits a mean of 4.45, with a standard deviation of 1.15.

2.2 Stock Market and Factors Data

We obtain stock prices and returns from the Center for Research on Security Prices (CRSP) for the 2017 to 2023 period. Using data from Compustat, we calculate various variables at the firm level. Additionally, we retrieve factor returns data from Professor Kenneth R. French's data library.[5] Specifically, we consider the following factors at a monthly frequency over 70 months: the market factor (Mkt-Rf), size (SMB), value (HML), mementum (UMD), profitability (RMW), and investment (CMA).

2.3 Institutional and Analyst Data

We use quarterly common stock holdings of 13(f) institutions from Refinitiv's Thomson Reuters database, covering the period from the first quarter of 2017 to the fourth quarter

[5] http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/index.html

of 2023.[6] We obtain detailed quarterly earnings forecasts and actual earnings per share (EPS) data from Thomson Reuters' Institutional Brokers Estimate System (I/B/E/S) database for the 2017–2023 period. To mitigate the impact of outliers, following the recent analyst literature, we exclude observations where the absolute forecast error exceeds one (Lim, 2001). Next, we retain only firms covered by at least four analysts to reduce bias from limited analyst coverage (Hilary and Hsu, 2013). Additionally, we focus on forecasts issued one month prior to the earnings announcement date, minimizing noise from stale forecasts or potential information leakage (Jegadeesh et al., 2004, Jackson, 2005). To assess the role of local analysts, we estimate the distance between an analyst's office branch and the headquarters of the firms they cover. Analyst locations are determined using the geographic coordinates (latitude and longitude) of their branch office's city, with data sourced from the Gazetteer Files provided by the U.S. Census Bureau.

2.4 Measuring Inequality Aversion

We use a measure of inequality aversion to capture the attitudes of shareholders and stakeholders toward pay inequality. Following Pan et al. (2022), we consider three key proxies: (i) the level of support for the Democratic candidate in the United States presidential election, (ii) the progressivity of state income taxes, measured as the difference between the maximum and minimum individual income tax rates and (iii) the state's minimum wage. These three proxies are positively correlated, suggesting that they collectively reflect a broader preference for inequality. To consolidate this information, we apply principal component analysis (PCA) and extract the first principal component, which serves as our primary measure of state-level inequality aversion.

We assess inequality aversion at both the firm headquarters and investor levels, denoted as *IA: HQ* and *IA: Investors*, respectively. *IA: HQ* represents the level of inequality aversion in the state where a firm's headquarters is located. To construct *IA: Investors*, we compute a weighted average of inequality aversion across the states where a firm's U.S. shareholders reside. Institutional investor ownership data is sourced from the Thomson

[6] Since Thomson Reuters Ownership data is known to have reliability issues after 2013, we mitigate potential biases by adjusting the 13(f) holdings data based on guidance from Wharton Research Data Services (WRDS).

Reuters Institutional (13F) Holdings database, supplemented with institutional investor locations obtained from Nelson's Directory of Investment Managers, SEC filings, and institutional managers' websites. For retail investors, we approximate inequality aversion using the firm's headquarters state, assuming that local attitudes strongly influence retail investors. The weight assigned to retail investors is calculated as one minus the firm's total institutional ownership.

3 Pay Inequality and Long-Term Stock Returns

3.1 First-Time Market Reaction to Pay Ratios

We begin our analysis with an event study examining the short-term market reaction to pay ratio disclosures. Specifically, following Pan et al. (2022), we analyze an event window of [-1, +3] days around the first proxy filing dates for firms with a financial year ending in 2017. Our results are consistent with the evidence in Pan et al. (2022), which are presented in Table 2. Across the first four specifications, we use CAPM, three-factor model, four-factor model, and market-adjusted returns (columns (1)–(4)). We find that the coefficient estimates for *High PR (Quintile)* remain consistently negative, indicating that high pay-ratio firms experience lower abnormal returns. When we use market-adjusted returns (column (4)), a one-standard-deviation increase in the pay ratio is associated with a 0.24 percentage point ($= 0.213 \times 1.15$) reduction in the firm's five-day cumulative return (t-statistic $= -2.09$).

To examine whether the main effect varies with different levels of inequality aversion, we introduce interaction terms between our main independent variable *High PR (Quintile)* and two measures of inequality aversion: *IA: HQ*, which captures inequality aversion at the firm's headquarters state, and *IA: Investors*, which reflects the preferences of the firm's investors. The results, presented in columns (5) to (8) of Table 2, suggest that firms with higher inequality-averse investors experience a more negative market reaction. This effect is observed for the investor-based measure but not for the headquarters-based measure, indicating that investor preferences play a more significant role in shaping market responses to pay ratio disclosures.

3.2 Long-Run Return Reversal: Graphical Evidence

Next, we analyze the relation between pay ratio and stock returns over the long term. High CEO pay could be an indicator of managerial talent, potentially leading to stronger long-term operating performance (e.g., Terviö (2008), Gabaix and Landier (2008), Edmans et al. (2009), Edmans and Gabaix (2011), Kaplan and Rauh (2013)). Firms with high pay gaps may, therefore, earn higher future returns because their values were initially undervalued by the market (e.g., Edmans (2011), Mueller et al. (2017)). Based on this premise, we hypothesize that firms with high pay ratios may also exhibit stronger performance and generate higher long-run returns.

Before testing the long-run return conjecture using a regression model, we plot the stock returns during 250 trading days following the first disclosure. Figure 1 shows the cumulative market-adjusted abnormal returns for firms with *High Pay Ratio* and *Low Pay Ratio*. Firms classified as *High Pay Ratio* belong to the top 20% of the pay ratio distribution, while those in the *Low Pay Ratio* fall in the bottom 20% at the time of first disclosure. Our findings reveal a clear pattern: within the first 70 trading days post-disclosure, *Low Pay Ratio* firms significantly outperform *High Pay Ratio*, complementing the short-term negative market reaction in Table 2. However, this trend begins to weaken and reverses after 105 trading days. Beyond this point, *High Pay Ratio* firms experience higher cumulative abnormal returns, suggesting a potential long-run reversal.

Figure 2 further examines the return patterns for firms with high inequality-averse investors, denoted as *High IA: Investors*. We define *High IA: Investors* as firms whose investors have inequality aversion in the top 30% of the aversion distribution. Given that firms with *High IA: Investors* experienced a stronger negative reaction during the five-day event study, we expect a similar pattern in this graph.

The plot confirms our expectation: firms with *High IA: Investors* experience a sharper initial decline in returns, with the effect persisting for up to 40 trading days post-disclosure. Interestingly, the reversal occurs earlier for these firms compared to the overall market, beginning around day 60. More importantly, the magnitude of the reversal is stronger among firms with *High IA: Investors.* The post-reversal gap between *High Pay Ratio* and *Low Pay Ratio* firms is wider in comparison with the overall market, suggesting that high inequality-averse investors initially overreact to pay ratio disclosures but also exhibit a stronger correction over time.

To gain deeper insights into the effects of learning about pay ratio disclosures over time, we examine the second, third, and fourth time firms disclose their pay ratio information. If high pay-ratio firms indeed generate higher long-run returns, we would expect the market to gradually incorporate this information in subsequent disclosures. Figure 3 confirms this conjecture. Our graphical evidence suggests that, on average, it takes two disclosure cycles for the market to adjust to high pay-ratio firms. We observe a reversal pattern following the first and second disclosures, but this effect diminishes by the third and fourth disclosures, indicating that the market has learned and incorporated the information by this stage.

3.3 Long-Run Return Reversal: Regression Estimates

To further examine the long-run stock return patterns following pay ratio disclosure, we estimate the following panel regression specification:

$$r_{i,t+1} - r_{f,t+1} = \alpha + \beta Ln(PR)_{i,t} + \gamma' X_{i,t} + \varepsilon_{i,t+1}. \tag{1}$$

Here, the dependent variable $r_{i,t+1} - r_{f,t+1}$ is the monthly excess return, equal to the return of firm i at month $t+1$ minus the associated monthly risk-free rate. Our main independent variable is the natural logarithm of the pay ratio *Ln(PR)* for each firm i disclosed at month t. $X_{i,t}$ is a vector of control variables, which includes the Fama-French three-factor betas in the previous month measured using the past 60 months' returns, cumulative returns, trading volume, and past stock price. Other firm-level controls include log market capitalization, book-to-market ratio, leverage, and dividend yield.

Panel A of Table 3 presents the regression estimates. For ease of interpretation, in addition to the main independent variable *Ln(PR)*, we introduce the following two dummy variables capturing firms with high inequality: *High PR (Quintile)* and *High PR (Tercile)*. *High PR (Quintile)* is an indicator variable that equals one if a firm's *pay ratio* in month t is in the top 20% of the sample distribution, and zero otherwise. *High PR (Tercile)* is an indicator variable that equals one if a firm's *pay ratio* in month t is in the top 30% of the sample distribution, and zero otherwise. Across all measures of pay inequality, our findings consistently show that firms with higher pay inequality have higher future returns.

For instance, in column (1), the coefficient estimate on *High PR (Quintile)* is 0.333 (t-statistic = 3.99). The result suggests that being in the top 20% of pay inequality distribution is associated with a 0.333% increase in the following month's excess returns, translating into a 3.996% (= 0.333% × 12) increase annually. This result is robust to controlling for beta factors (Mkt-Rf, SMB, HML) and firm characteristics in columns (4)-(6), where the coefficient estimates remain positive and statistically significant at 1%.

In columns (7)–(9), we incorporate the full set of control variables, including stock-level factors such as past cumulative returns, price, and trading volume. After accounting for these controls, the return difference between high pay-ratio firms and the rest of the sample settles at 0.317%, as illustrated in column (7) of Table 3. These results provide strong support for the hypothesis that firms with higher pay ratios generate higher long-run returns (Mueller et al., 2017, Dittmann et al., 2023).

We take a closer look at the timing of future returns, specifically examining how long after disclosure high pay-ratio firms begin to generate higher returns. To test this, we analyze three-month cumulative returns following disclosure. The results, presented in Panel B of Table 3, indicate that the reversal effect, on average, begins to emerge during month $t+3$ and $t+5$. The strongest effects are observed between $Cumulative\ Excess\ Return_{5-7}$ and $Cumulative\ Excess\ Return_{7-9}$. The coefficient estimate of *High PR (Quintile)* is 1.476 (t-statistic = 2.65) for $Cumulative\ Excess\ Return_{5-7}$, highlighting a significant return pattern over this period. In Figure 5, we illustrate how returns evolve each month following disclosure. We re-estimate column (7) of Table 3 for each post-disclosure month and find that returns gradually increase, peaking at month 7 with the most significant

t-value.

Overall, the evidence on long-run returns suggests that the market initially overreacts to high pay ratios at the first disclosure but gradually correct itself over time as investors recognize that firms with higher pay inequality deliver strong long-run performance. By demonstrating this reversal in the long run, our study adds a critical time-series dimension to the initial negative reaction to high pay ratios identified in Pan et al. (2022).

3.4 Reaction of Inequality-Averse Investors

Next, we investigate whether investors with varying levels of inequality aversion respond differently to information on pay ratios. Our hypothesis is motivated by the evidence that political ideology influences investor behavior (e.g., Hong and Kostovetsky (2012), Hutton et al. (2014), Di Giuli and Kostovetsky (2014)). Democrats tend to prioritize social justice and redistribution, while Republicans generally favor market fairness. Our analysis of search intensity, as illustrated in Figure 4, reveals that attention to social issues such as inequality is significantly higher in states with greater inequality aversion. Therefore, we anticipate varying market reactions to pay ratio disclosures based on the extent to which firms are exposed to inequality-averse investors.

Building on the baseline return regressions in Table 3, we introduce interaction terms of pay ratios with *High IA: HQ* and *High IA: Investors*. Table 4 presents our findings. We do not observe a significant effect for the specifications with *High IA: HQ* across columns (1)-(3) but we find strong effects among firms with *High IA: Investors*. Further, we observe a consistent pattern using alternative measures of high pay ratios. In columns (5) and (6), we replace *High PR (Quintile)* with *High PR (Tercile)* and *Ln(PR)*, respectively. Across these specifications, the interaction terms with *High IA: Investors* remain positive and statistically significant, even when *Industry* $\times$ *Year* fixed effects are included.

Taken together, our findings suggest that the higher returns observed for high pay-ratio firms are stronger among firms with a greater concentration of inequality-averse investors. When combined with the short-term market reaction to the initial disclosure of pay ratios, our results indicate that firms with more inequality-averse investors experience a stronger negative reaction in the short run but a more pronounced positive response in the long run. This pattern suggests that high inequality-averse investors are more prone to overreacting to pay ratio disclosures. Initially, they perceive high pay ratios unfavorably, but as they learn about the potential link between high pay ratios and managerial talent, they adjust their expectations accordingly, generating a reversal in their reaction.

3.5 Pay Ratio and Operating Performance

In this section, we examine the long-run operating performance of high pay-ratio firms to determine whether managerial talent drives the long-run returns of high pay-ratio firms. Specifically, we estimate a panel specification where we regress the firm performance variables on the natural logarithm of pay ratio:

$$Firm\ Performance_{i,t+1} = \alpha + \beta Ln(PR)_{i,t} + \gamma' X_{i,t} + \varepsilon_{i,t+1} \tag{2}$$

The dependent variable, $Firm\ Performance_{i,t+1}$ includes Return on Assets (ROA), Standard Deviation of ROA (STD ROA), and Profit Margin of firm i one year after disclosures $(t+1)$. Our main independent variable is the natural logarithm of the pay ratio *Ln(PR)* for each firm i at year t. $X_{i,t}$ is a vector of firm-level control variables, which includes the natural logarithm of market capitalization, book-to-market ratio, leverage, dividend yield, loss indicator and lagged values of dependent variables. Bertrand and Mullainathan (2001) argue that CEO compensation is often influenced by industry-wide factors beyond the CEO's control, a phenomenon known as *pay for luck*. To address the *pay for luck* argument, we include *Industry* × *Year* fixed effects to control for industry-specific economic conditions that could affect operating performance.

The results are presented in Table 5. Column (1) shows that the coefficient on *Ln(PR)* is positive and statistically significant (t-statistic = 3.39), indicating that firms with higher pay ratios have stronger ROA. This finding aligns with the evidence in Mueller et al. (2017) and Dittmann et al. (2023), who use data from the UK and Germany, respectively, and also observe that greater pay gaps within firms are associated with stronger managerial incentives and efforts to retain top talent. When we include *Industry* $\times$ *Year* fixed effects in column (2) and add *State* $\times$ *Year* fixed effects in column (3), our results remain strong (t-statistic = 2.00).

Columns (4) to (6) examine the relation between pay ratios and corporate risk-taking, using the standard deviation of ROA as the dependent variable. We find that firms with higher pay ratios exhibit lower ROA volatility, with a statistically significant coefficient estimate (t-statistic = -3.38 in column (6)). This evidence suggests that high pay ratios are associated with more stable firm performance.

Additionally, we use Profit Margin as an alternative measure of operating performance. The results in columns (7) to (9) indicate that, consistent with our findings on ROA, firms with higher pay ratios have higher profit margins, reinforcing the notion that high pay inequality within firms may be linked to stronger financial performance.

3.6 Pay Ratio, Inequality Aversion, and Operating Performance

In the next set of tests, we examine the operating performance of firms with high inequality-averse investors, motivated by our observation that these firms generate even higher future returns. To investigate whether performance serves as the underlying channel, we analyze whether firms with higher aversion investors exhibit even stronger operational outcomes. If performance drives this return pattern, we expect these firms to perform even better.

We extend the performance regression from Table 5 by incorporating interaction terms between our key independent variables and the inequality aversion levels in the states where firms are headquartered and investors are located. Specifically, we introduce *High IA: HQ* and *High IA: Investors* to capture these effects. The results are presented in Table A2.

Across columns (1)–(3), we find no significant difference in performance between firms headquartered in states with varying levels of inequality aversion. However, firms with investors exhibiting higher inequality aversion perform better across multiple performance measures. These firms have higher ROA, lower risk-taking behavior, and lower profit margins. For instance, in column (4), where we analyze ROA, the coefficient of the interaction term *Ln(PR)* $\times$ *High IA: Investors* is 0.0068 (t-statistic = 2.23). This finding complements our long-run return results in Table 4, which show that firms held by higher inequality aversion investors earn higher long-run returns due to their stronger performance. In contrast, we observe no such effect for firms headquartered in high inequality aversion states, as there is no significant difference in their operating performance.

These findings suggest that firms with higher pay ratios achieve better long-run performance, exhibiting higher ROA, stronger profit margins, and less risk-taking, as evidenced by lower ROA volatility. However, the market is likely to be slow in fully recognizing and incorporating the performance of these firms into prices.

3.7 Does High Pay Ratio Reflect Managerial Ability?

Our operating performance results do not provide unambiguous evidence to support the managerial talent hypothesis. To find additional support for this conjecture, we directly examine the relation between pay ratio and managerial talent using the managerial ability measure developed in Demerjian et al. (2012). This managerial ability measure captures a manager's efficiency, relative to industry peers, in converting corporate resources into revenues. We obtain the managerial ability score from the author's website, which is available up to 2022.[7]

We regress our main measure of pay ratio *Ln(PR)* on lagged values of the managerial ability score, denoted as *MA*, along with a set of control variables. The results, presented in Table A3, reveal a strongly positive relation between pay ratio and managerial ability. The coefficient estimates for *MA* are positive and statistically significant across all specifications. For instance, in column (1), the coefficient of MA_{t-1}, the one-year lag, is 0.138 (t-statistic = 2.33). The results remain robust with the inclusion of *Industry* $\times$ *Year* fixed effects. The magnitude of the coefficients is relatively larger in the specifications using MA_{t-3} and MA_{t-4} (columns (5)–(8)), suggesting that it takes time for managerial talent to be fully reflected in the compensation structure. Our findings support the view

[7]https://peterdemerjian.weebly.com/managerialability.html

that pay ratios capture the underlying managerial talent, which is a potential channel through which high pay-ratio firms generate stronger long-run returns.

Since investors can identify high pay-ratio firms as strong performers and considering the robust link between pay ratios and managerial talent, we next ask whether investors, particularly those with high inequality aversion, are better able to recognize managerial talent. To investigate this possibility, we re-estimate our return regression from Table 4, incorporating the managerial ability measure to assess whether investors explicitly respond to managerial talent. In this specification, we include the managerial ability score, denoted as *MA*, as our primary measure of managerial talent, along with *High MA (Quintile)* and *High MA (Tercile)* dummy variables. The variable *High MA (Quintile)* is equal to one if a firm's managerial ability falls within the top 20% of the distribution, while *High MA (Tercile)* is equal to one if it falls within the top 30%.

The results, shown in Table 6, are consistent with our earlier findings. The interaction between pay ratio and inequality aversion remains positive and statistically significant across all specifications, suggesting that investors with high inequality aversion value high pay ratios even more. As noted previously, these investors are likely to be better at recognizing the potential performance of high pay-ratio firms.

Turning to managerial talent, we find that the coefficient on *MA* is positive and statistically significant in all specifications. For example, in column (1), the coefficient on *High MA (Quintile)* is 1.296 (t-statistic = 7.83), indicating that high managerial ability is associated with higher returns. This finding complements our earlier results on pay ratio, suggesting that managerial talent can also predict long-run returns. However, the interaction between managerial ability and inequality version, *High MA* $\times$ *High IA*, is not statistically significant. This evidence suggests that highly inequality-averse investors may not recognize or respond to managerial talent as strongly as they do to pay ratio information. It is plausible that managerial talent is less visible and more difficult for investors to assess, often requiring time and consistent operating performance to become apparent. In contrast, pay ratio information is readily available and easier to interpret.

Overall, our managerial ability regression estimates highlight a close link between pay ratio and managerial talent. While managerial ability contributes to future return performance, investors find it difficult to accurately identify this signal relative to the more transparent signal from pay ratio.

3.8 Inequality Aversion at the Operations Level

Our primary measures of inequality aversion are based on firms' headquarters locations and investors' locations. However, we recognize that this approach may not fully capture firms' overall exposure to inequality aversion, as they often operate across multiple states with different levels of inequality aversion.

To address this limitation, we adopt the methodology in Garcia and Norli (2012) and Bernile et al. (2015) to identify the states where a firm conducts business and assess their relative significance. Using firms' 10-K filings with the SEC from 2017 to 2023, we analyze key sections, namely "Item 1: Business," "Item 2: Properties," "Item 6: Consolidated Financial Data," and "Item 7: Management's Discussion and Analysis" and count the number of times each state is mentioned. We then assign a weight to each state based on its frequency of mention relative to the total number of state references. This allows us to construct an annual firm-level measure of state exposure, reflecting both the presence and importance of each location in a company's operations.

Next, we calculate the weighted average inequality aversion across all states where a firm operates, creating a third measure of inequality aversion preferences based on operational presence rather than corporate headquarters or investor location. We then sort our inequality aversion measure at the operational level into terciles and classify firms in the top 30% of the distribution as *High IA: Operation*.

We re-estimate our main return regressions by introducing an interaction term between measures of pay inequality and *High IA: Operation*. The results, reported in Table A4, align with our main findings. Specifically, we find that high pay-ratio firms operating in high inequality-averse states experience stronger long-run return reactions. Across all specifications, whether defining pay inequality as *High PR (Quintile)*, *High PR (Tercile)*, or *Ln(PR)*, the interaction terms with *High IA: Operation* remain positive and statistically significant. These findings further reinforce and complement our main results.

4 Pay Inequality, Analysts, and Institutional Investors

In this section, we investigate how sophisticated market participants perceive high pay ratio firms. If these market participants do not fully recognize the relation between pay ratio and managerial talent, they could generate stronger under-reaction to pay ratio disclosures.

4.1 Pay Ratio and Analyst Forecasts

First, we examine the behavior of sell-side analysts following the disclosure of pay ratios. Specifically, we use analysts' earnings forecasts to measure forecast optimism (pessimism) and forecast accuracy. We use quarterly earnings forecast data from the Institutional Brokers' Estimate System (I/B/E/S). We estimate the following regression specification:

$$FE_{i,j,t+1} = \alpha + \beta Ln(PR)_{i,t} + \gamma' X_{i,j,t} + \theta' Z_{i,t} + \delta_{analyst} + \zeta_{time} + \varepsilon_{i,t+1}. \tag{3}$$

Here, $FE_{i,j,t+1}$ is forecast errors for analyst i covering firm j at time $t+1$, calculated as

$$FE_{i,j,t+1} = \frac{Forecast\ Value_{i,j,t+1} - Actual\ Value_{j,t+1}}{Stock\ Price_{j,t+1}}. \tag{4}$$

In this equation, $Stock\ Price_{j,t+1}$ is the stock price in the forecast month. Forecast errors ($FE_{i,j,t+1}$) represent analysts' optimism (pessimism) about pay ratios.

We also estimate forecast accuracy regressions, where $AFE_{i,j,t+1}$ captures the absolute value of the forecast errors ($FE_{i,j,t+1}$), representing forecast accuracy.

$$AFE_{i,j,t+1} = \alpha + \beta Ln(PR)_{i,t} + \gamma' X_{i,j,t} + \theta' Z_{i,t} + \delta_{analyst} + \zeta_{time} + \varepsilon_{i,t+1}. \tag{5}$$

We include a set of control variables $Z_{i,t}$ at analyst level. Specifically, *Forecast Horizon* measures the number of months between the forecast date and the actual earnings announcement. *Firm Experience* captures the number of years an analyst has covered a specific firm. *Number of Firms* represents the total number of companies an analyst follows in a given year, while *Number of Industries* reflects the count of Fama-French 48 industries that an analyst covers. *Lagged Absolute Forecast Error (LAFE)* denotes the analyst's absolute forecast error for a given firm in the previous period. $X_{i,j,t}$ is a vector of firm-level control variables, which includes the natural logarithm of market capitalization, book-to-market ratio, leverage, dividend yield, and loss indicator. In addition to these control variables, we include *Analyst* $\times$ *Quarter-Year* and *Industry* $\times$ *Quarter-Year* fixed effects, depending on the specification.

The results are presented in Table 7. Columns (1)–(4) report the findings on analysts' forecast optimism (pessimism). We find that, on average, analysts are more pessimistic about firms with high pay ratios, compared to those with low pay ratios. In column (1), the coefficient estimate of *Ln(PR)* is -0.012 (t-statistic $= -2.27$). When we additionally control for *Industry* $\times$ *Quarter-Year* fixed effects in column (2), the results remain similar.

We also examine the role of local analysts, who may have an informational advantage due to their proximity to the firms they cover. Columns (3)–(4) present the results, showing that the main effect of *Ln(PR)* remains negative and significant. However, we do not find statistically significant differences in forecast pessimism between local and non-local analysts. This evidence suggests that local analysts do not exhibit a superior ability to assess high pay ratio firms.

Since analysts exhibit systematically stronger pessimism toward firms with high pay ratios, we expect this to translate into lower forecast accuracy. The results in columns (5)–(8) confirm this conjecture. The coefficient estimates on *Ln(PR)* are positive and statistically significant across all specifications. In column (5), for instance, a one-standard-deviation increase in *Ln(PR)* decreases forecast accuracy (AFE) by 0.04 ($= 0.034 \times 1.15$), representing a 5.9% decline relative to the mean forecast accuracy of 0.67 (t-statistic $= 6.11$). This evidence suggests that analysts make larger absolute forecast errors when evaluating firms with high pay ratios, implying that they either fail to fully incorporate pay ratio information into their assessments or do not recognize these firms as strong performers.

In column (6), we add *Industry* × *Quarter-Year* fixed effects, and the results remain consistent. Further, when we examine the behavior of local analysts, consistent with the findings on forecast pessimism, estimates in columns (7)–(8) suggest that local analysts do not effectively exploit their geographical proximity to incorporate pay ratio information to improve the quality of their forecasts.

Together, forecast error and accuracy regression estimates indicate that sell-side equity analysts are relatively more pessimistic about firms with high pay ratios, leading to lower forecast accuracy. Thus, analysts may either overlook the value of pay ratio information or fail to recognize their full implications for firm performance. This lack of attention could contribute to the stock market's delayed reaction to pay ratio disclosures.

4.2 Pay Ratio and Earnings Surprises

Our findings so far indicate that analysts are more pessimistic about high pay-ratio firms and fail to fully anticipate their strong performance. This underestimation at the aggregate level is likely to generate positive earnings surprises. To test this conjecture, we estimate the following regression specification:

$$SUE_{i,t+1} = \alpha + \beta Ln(PR)_{i,t} + \gamma' X_{i,t} + \varepsilon_{i,t+1}. \tag{6}$$

Here, the dependent variable, $SUE_{i,t+1}$, represents the quarterly *Standardized Unexpected Earnings* for firm i in quarter $t+1$. Following Giroud and Mueller (2011), Edmans (2011), Mueller et al. (2017), we define $SUE_{i,t+1}$ as the difference between a firm's actual earnings per share (EPS) at quarter $t+1$ and the mean or median I/B/E/S consensus forecast, scaled by the firm's stock price two months prior to the earnings announcement. To maintain consistency with our evidence from analyst-level forecast errors, we use the I/B/E/S consensus forecast from one month before the earnings announcement. This choice ensures that analysts have access to the most up-to-date information and incorporate it into their forecasts. The vector $X_{i,t}$ includes firm-level control variables, including the natural logarithm of market capitalization and the book-to-market ratio.

Table 8 presents the SUE regression results. Columns (1) to (3) analyze the consensus based on the mean consensus forecast, while Columns (4) to (6) consider the median consensus. Our findings in Panel A of Table 8 indicate that firms with high pay ratios, on average, experience positive earnings surprises. Specifically, in column (1), firms being in the top quintile of the pay ratio distribution are associated with an increase in earnings surprise of 0.0003 (t-statistic = 2.11), representing a 20% increase relative to the mean earnings surprise *SUE(Mean)* of 0.0015.

In Panel B, we analyze the impact of high inequality-averse investors. Specifically, we introduce an interaction term between the pay ratio measures and the dummy variable *High IA: Investors*. Across all specifications, this interaction term remains positive and statistically significant, indicating that firms with a higher proportion of inequality-averse investors experience even stronger earnings surprises. These findings are consistent with our previous results on long-run returns, where we find firms with high inequality-averse investors also earn higher long-run returns.

Overall, our SUE regression estimates, together with the analysis of analyst-level forecast errors in Section 4.1, suggest that the market initially underreacts to pay ratio information. This is reflected in analysts' pessimism toward firms with high pay ratios, possibly due to concerns about income inequality. As a result, the market is positively surprised by stronger-than-expected performance of these firms.[8]

4.3 Pay Ratio and Changes in Institutional Shareholdings

To further identify the channel through which firms achieve higher long-run returns, we examine the behavior of institutional investors to determine whether they actively accumulate shares in high pay-ratio firms over time. If institutional investors are at least partially driving these returns, we expect to see an increase in their demand for high pay-ratio firms, reflected in greater share purchases of firms with higher pay ratios. To test this conjecture, we estimate the following regression:

[8] In untabulated results, we replace quarterly earnings forecasts with annual earnings forecasts. To ensure analysts have access to the most up-to-date information, we use forecasts issued one month prior to the earnings announcement date. Results on analyst-level forecast errors (Section 4.1) and earnings surprises (Section 4.2) remain robust under this alternative specification.

$$\Delta\ Share_{i,j,t} = \alpha + \beta Ln(PR)_{i,t} + \gamma' X_{i,t} + \theta' Z_{j,t} + \delta_{Inst.} + \zeta_{Industry} + \varepsilon_{i,t+1}. \qquad (7)$$

The dependent variable measures the quarterly change in institutional investor j's shareholdings in stock i during quarter t, calculated as the difference between the number of shares held at the end of quarter t and quarter $t-1$, divided by shares held at the end of quarter $t-1$. We analyze changes in shareholdings over quarters t, $t+1$, $t+2$, and $t+3$. The key independent variable, $Ln(PR)_{i,t}$, represents the natural logarithm of the pay ratio disclosed in quarter t. The vector $X_{i,t}$ includes firm-level control variables such as the average log market capitalization, book-to-market ratio, and leverage. Additionally, we control for a loss-reporting indicator, which equals one if the firm reported a loss in the previous year, as well as the dividend yield for the same period. The variable $Z_{j,t}$ captures a set of institutional investor controls, including portfolio size and the number of firms held within the institution's portfolio. Finally, we incorporate *Institutional Investor* and *Industry* fixed effects to account for unobserved heterogeneity.

We present the institutional investors shareholdings regression estimates in Table 9. Panel A reports the findings for all institutional investors. In column (1), we observe that institutional investors initially reduce their holdings in the first quarter following a firm's pay ratio disclosure. The coefficient of $Ln(PR)_{i,t}$ is -0.099 and highly significant (t-statistic $= -28.34$). However, when we examine shareholding changes one, two, and three quarters ahead, the coefficient of $Ln(PR)_{i,t}$ turns positive and remains statistically significant. These results suggest that, on average, institutional investors increase their holdings in high pay-ratio firms in the quarters following the disclosure, despite the initial decline in share ownership.

Since firms with investors exhibiting higher inequality aversion earn higher returns, we expect these investors to increase their holdings in high pay-ratio firms over the long run. The results in Panel B of Table 9 confirm this intuition, showing that institutions located in states with higher inequality aversion begin accumulating more shares starting in the second quarter after disclosure. The coefficients of the interaction term *Ln(PR)*

$\times$ *IA* are positive and statistically significant at quarters $t+2$ and $t+3$. In the short term, specifically during the disclosure quarter (t), we find that high aversion institutional investors reduce their holdings in high pay-ratio firms less aggressively than others. This pattern aligns with our graphical evidence, which suggests that high inequality-averse investors adjust their positions more quickly compared to the broader market.

For instance, following the first disclosure, Figure 2 shows that high inequality-averse investors reverse their positions more strongly within 40 days (i.e., less than a quarter), whereas the average market reaction takes approximately 100 trading days (i.e., more than a quarter). Since our data is measured at a quarterly frequency, it is possible that we primarily capture the post-reversal accumulation of shares by high inequality-averse investors. Their quicker adjustment relative to the broader market may mean that we do not observe the initial drop in shareholdings due to the lack of higher-frequency data.

To understand how institutional investors learn that high pay ratios are associated with better performance and subsequently increase their holdings in the long run, we examine the role of the local bias. Prior literature has documented that investors exhibit local bias, which means that they tend to overweight geographically proximate firms (e.g., Bernile et al. (2015), Korniotis et al. (2020)). We posit that local institutional investors, due to their geographic proximity, have better access to firm-specific information, enabling them to learn more quickly about the performance of high pay ratios. To test this conjecture, we analyze the behavior of local institutional investors located within 250 miles of a firm's headquarters.

In Panel C of Table 9, we include an interaction term between *Ln(PR)* and a distance-based dummy, *Nearby Firm*. *Nearby Firm* is a dummy variable equal to one if the institutional investor holding the firm is located within 250 miles of the firm's headquarters, and zero otherwise. The coefficient estimate of *Ln(PR)* $\times$ *Nearby Firm* in the disclosure quarter (t) is negative (t-statistic $= -3.64$), indicating that local institutional investors initially reduce their holdings in high pay-ratio firms more aggressively than others. However, in quarters $t+1$ and $t+2$, the coefficients turn positive and statistically significant, suggesting that local institutional investors, who learn about firms more quickly, subsequently increase their holdings in high pay-ratio firms at a faster rate. Their local advantage allows them to adjust their portfolios more effectively. When we include both interaction terms, *Ln(PR)* × *Nearby Firm* and *Ln(PR)* × *IA*, we find that the observed effect is primarily driven by local investors.

These findings support our conjecture that learning about the performance of high pay-ratio firms is one of the channels through which institutional investors increase their demand for these firms over time. Local investors with better opportunities to learn about firms learn quicker than other market participants.

4.4 Pay Ratio and Institutional Portfolio Weights

To further examine the learning channel and assess whether institutional investors recognize the link between high pay ratios and stronger performance, we analyze the levels of institutional ownership and assess whether they overweigh high pay-ratio firms. Using quarterly institutional ownership data, we estimate the following set of regressions:

$$Excess\ Weight_{i,j,t} = \alpha + \beta Ln(PR)_{i,t} + \gamma' X_{i,t} + \theta' Z_{j,t} + \delta_{Inst.} + \varepsilon_{i,t+1}. \tag{8}$$

The dependent variable is the quarterly excess holding weight of institutional investor j in stock i during quarter t. Specifically, $Excess\ Weight_{i,j,t}$ is defined as the difference between the weight of stock i in investor j's portfolio in quarter t and stock i's market weight in the same quarter. The main independent variable, $Ln(PR)_t$, is the natural logarithm of the pay ratio disclosed in quarter t. The vector $X_{i,t}$ includes firm-level control variables, namely the average log market capitalization, book-to-market ratio, leverage, dividend yield, and a loss indicator. The variable $Z_{j,t}$ accounts for institutional-level controls, including portfolio size and the number of firms held in the institution's portfolio. To control for unobserved heterogeneity, we incorporate *Institutional Investors* × *Quarter-year* fixed effects.

We present the results of institutional investors' excess holdings in Table 10. Our findings indicate that, on average, institutional investors overweigh firms with higher pay ratios. The coefficient estimates for our primary independent variable, *Ln(PR)*, are consistently positive and statistically significant across quarters t through $t+3$ (columns (1)–(3)). For instance, in the third quarter after disclosure (column (3)), a one-standard-deviation increase in *Ln(PR)* leads to a 0.008% increase in excess holdings ($= 0.007 \times 1.15$), corresponding to a 5% rise relative to the mean excess holdings of 0.16%.

In columns (5)–(8), we examine the effect of high inequality-averse investors by introducing an interaction term between *Ln(PR)* and the state-level inequality aversion of investors, *IA*. The positive and statistically significant coefficient estimates of *Ln(PR)* × *IA* in quarters $t+1$, $t+2$, and $t+3$ suggest that high inequality-averse investors are more likely to overweigh high pay-ratio firms during these periods.

Turning to the behavior of local institutional investors, we observe that they also overweigh high pay-ratio firms, as evidenced by the positive and statistically significant coefficient estimates of *Ln(PR)* × *Nearby Firm*. In these specifications, we include both interaction terms, *Ln(PR)* × *IA* and *Ln(PR)* × *Nearby Firm*. Our results show that the overweighting effect is stronger among local institutional investors, compared to high inequality-averse investors.

Overall, this evidence further supports the learning channel, demonstrating that geographical proximity provides an advantage to institutional investors. Local investors, with quicker access to firm-specific information following disclosures, are able to adjust their holdings more effectively.

4.5 Pay Ratio, Institutional Ownership, and Long Run Returns

To establish a more direct link between institutional investor demand and long-run returns, we estimate a panel return regression incorporating an interaction term with the change in shareholdings as follows:

$$r_{i,t+1} - rf_{i,t+1} = \alpha + \beta Ln(PR)_{i,q,t} \times \theta \Delta Share_{i,q} + \gamma' X_{i,t} + \varepsilon_{i,t+1}. \tag{9}$$

Here, the dependent variable, $r_{i,t+1} - rf_{i,t+1}$, represents the monthly excess return, calculated as the monthly return of firm i in month $t+1$ minus the corresponding monthly risk-free rate. Our primary independent variable is the natural logarithm of the pay ratio, $Ln(PR)_{i,q,t}$, for each firm i, disclosed in month t and quarter q. The variable $\Delta Share_{i,q}$ is a firm-level measure representing the value-weighted average change in institutional investors' shareholdings for firm i from quarter $t-1$ to quarter t. This change is first estimated at the institutional level and then aggregated at the firm level using a value-weighted methodology. The vector $X_{i,t}$ contains control variables, including the Fama-French three-factor betas from the previous month, estimated using the past 60 returns, as well as past cumulative returns, trading volume, and stock price. Additional firm-level controls include log market capitalization, book-to-market ratio, leverage, dividend yield, and a loss indicator.

We present the regression estimates in Table 11. The main effects across the three measures of pay ratios, *High PR (Quintile)*, *High PR (Tercile)*, and *Ln(PR)*, are consistently positive and statistically significant, reinforcing our initial return reversal hypothesis, indicating that high pay-ratio firms achieve higher long-run returns. More importantly, we find that the interaction term between pay ratios and institutional investor demand, proxied by $\Delta Share_{i,q}$, is positive and statistically significant across all specifications. In columns (1)–(3), where we include firm-level control variables, the coefficient estimate for *High PR (Quintile)* $\times$ $\Delta Share$ is 0.072 (t-statistic = 4.83), suggesting that institutional investor demand strengthens the positive relation between pay ratios and long-run returns. In columns (4)–(6), after incorporating the full set of controls, our results remain robust, further emphasizing the role of institutional investor demand in driving the long-run returns of high pay-ratio firms.

Collectively, these results provide strong evidence supporting the connection between institutional investor demand and the long-run returns of high pay-ratio firms. Institutional investors consistently increase their holdings in high pay-ratio firms, contributing to the upward movement in returns in the long run.

4.6 Quantifying Economic Effects Using a Trading Strategy

To further assess the economic significance of the long run return analysis, we perform a double-sorted trading strategy. First, we sort stocks into terciles based on *IA: Investors* and *Institutional Ownership* at month t. Firms in the top 30% of the distribution are classified as *High IA & High IO*, while those in the bottom 30% are categorized as *Low IA & Low IO*. Next, we sort stocks into quintiles based on their pay ratios disclosed in month t. The *High PR* portfolio consists of a value-weighted portfolio of stocks with pay ratios in the top 20% of the distribution, whereas the *Low PR* portfolio comprises a value-weighted portfolio of stocks with pay ratios in the bottom 20%.

Each month, conditional on a firm's *IA & IO*, we take a long position in *High PR* firms and a short position in *Low PR* firms, forming our *High-Low* portfolio. Additionally, we construct a *High-High* portfolio by taking a long position in *High PR* firms within the *High IA & High IO* group and a short position in *High PR* firms within the *Low IA & Low IO* group. We rebalance the portfolio annually when firms disclose pay ratios and use market capitalization for the portfolio weight.

Table 12 reports the performance of our trading strategies. The *High-Low* strategy generates positive and statistically significant alphas across the Fama and French (1993), Carhart (1997), and Fama and French (2015) factor models for firms in the *High IA & High IO* group, but not for those in *Low IA & Low IO*. In Panel A, where we control for the market factor ($Mkt - Rf$), the *High* portfolio within *High IA & High IO* exhibits a positive and statistically significant alpha. The *High-Low* portfolio generates a significant alpha of 1.049% per month.

Panel B presents estimates based on the three-factor model, where the *High* portfolio's alpha remains positive at 0.475%, significant at the 5% level, while the *High-Low* portfolio continues to exhibit a strong positive alpha of 0.937%, also significant at the 5% level. The estimates in Panel C, based on the four-factor model, demonstrates the robustness of our findings, with the *High-Low* portfolio maintaining a significant positive alpha of 0.932%. Finally, when extending the analysis to the five-factor Model, which includes the profitability (RMW) and investment (CMA) factors, the trading strategy continues to yield a positive and significant alpha of 0.757% per month (t-statistic = 2.02). In annual terms, the monthly five-factor alpha translates to 9.084% per year (= 0.757% × 12).

The *High-High* trading strategy also generates positive alphas across various models.

This strategy involves comparing *High PR* firms with *High IA & High IO* against *High PR* firms with *Low IA & Low IO*. We find that even though the alpha is not statistically significant when controlling only for the market factor, the strategy becomes profitable when we consider the three-factor, four-factor, and five-factor Models. For example, using the four-factor model, the alpha is 0.469% (t-statistic = 2.09). Extending the analysis to the five-factor model increases the alpha to 0.636% (t-statistic = 3.36). This translates into an annualized five-factor alpha of 7.632%.

Overall, our trading strategies reinforce the idea that high pay-ratio firms have superior long-run returns. And firms with high inequality-averse investors and a higher concentration of institutional investors earn even higher abnormal returns.

5 Robustness Checks and Alternative Explanations

In this section, we present additional supporting evidence for our main results and explore potential alternative explanations for our findings.

5.1 Compensation for Risk or Evidence of Mispricing?

One interpretation of our long-term performance results is that firms with high pay ratios earn higher future returns as a consequence of lower initial valuations, potentially reflecting investor aversion to inequality. Put differently, the future returns can represent an additional risk premium or compensation required by investors for holding high pay ratio firms that may be perceived as riskier.

To investigate this conjecture, we evaluate our trading strategy using multiple factor models that control for standard sources of risk. The persistence of abnormal alphas across these factor models suggests that the observed return premium is not fully explained by known risk factors, pointing instead toward some degree of mispricing.

Next, to examine the possibility that high pay ratio firms trade at lower valuations and consequently generate higher future returns, we re-estimate the baseline return regression (Table 3) with additional controls for firm valuation. Specifically, we include Tobin's Q and the book-to-market (BM) ratio in the specification. We also include idiosyncratic volatility (IVOL) as an additional control for firm-specific risk. The results, reported in Table A5, show that the coefficients on Tobin's Q and BM ratio are statistically significant, indicating that valuation does indeed play a role in explaining the observed return differences. However, even after accounting for these additional risk and valuation controls, our main effects remain robust.

Taken together, the extended regression estimates suggest that while part of the higher future returns associated with high pay ratio firms could reflect compensation for risk not captured by the existing factor models, there still remains a return component that may instead reflect temporary mispricing.

5.2 Managerial Talent or Cost-Cutting via Low Worker Pay?

Another interpretation of our results presented in Table 5 is that managerial skills associated with high levels of CEO compensation high ratio firms do not improve their performance, but those firms are more profitable because of lower median worker pay and various cost-cutting measures. To disentangle between the managerial talent and cost-cutting channels for superior performance of high pay ratio firms, we add an interaction between pay ratio and high managerial ability (*High MA*) and re-estimate Table 5 regressions. The coefficient estimate on this interaction term indicates whether the superior performance effect of high pay ratios is concentrated among firms with more skilled managers, or whether this positive pay ratio-performance relation exists among all firms independent of managerial quality, thereby suggesting a cost-cutting explanation.

Table A6 presents the results. We find that the *Ln(PR)* $\times$ *High MA* interaction has economically meaningful and statistically significant coefficient estimate. In particular, ROA and profitability regression estimates in columns (1) and (5), respectively, show that the interaction coefficients are positive and statistically significant. Although the interaction term in column (3) has the expected negative sign, it is not statistically significant. Overall, these extended regression estimates suggest that high pay ratio firms with high-quality managers perform better, reinforcing the notion that managerial talent plays a key role in driving the superior performance of high pay ratio firms.

To further isolate the underlying economic mechanisms, we decompose pay ratio into CEO compensation and median worker pay components, and examine their separate effects in columns (2), (4), and (6). The results show that firms with high CEO compensation combined with strong managerial talent have higher ROA, lower ROA volatility, and greater profitability, even after controlling for the influence of median worker pay. The fact that high CEO compensation, when paired with high managerial talent, consistently drives stronger performance implies that the managerial talent channel is the more dominant explanation for our findings.

We also examine the role of managerial talent in our return predictability regressions. Table A7 reports the results from return regression specifications augmented with pay ratio and managerial talent interaction. Across columns (1)–(3), the coefficients on the interaction term are positive and statistically significant. This evidence indicates that firms with high pay ratios and high-quality managers earn higher future returns, consistent with the operating performance mechanism discussed earlier. To determine whether these return effects are driven by the numerator (CEO pay) or the denominator (median worker pay) of the pay ratio, we separately interact managerial talent with each of these two components. The results reported in column (4) again highlight that CEO compensation, when paired with managerial ability, plays a more dominant role than cost-cutting via lower worker pay in driving the observed return premium.

Overall, these results from extended regression specifications highlight the central role of managerial talent in driving both the operating and return performance of high pay ratio firms. High pay ratios can be justified when compensation reflects true managerial ability and contributes meaningfully to value creation.

5.3 Learning from Pay Ratio Disclosure Events Across Time

Over time, the informational content of a firm's pay ratio would be fully anticipated by investors and only unexpected deviations from prior disclosures should influence stock prices. To investigate this possibility, we examine whether the market continues to respond to pay ratio announcements in subsequent years.

Specifically, we re-estimate the event study regression to compare the market reaction to initial versus subsequent pay ratio disclosures. Specifically, we interact our main indicator for high pay ratios (*High PR*) with a dummy variable representing the timing of disclosure. The results, presented in Table A8, offer several important insights. Across all columns, we find that high pay ratios are associated with a significantly negative market reaction at the time of the first disclosure, consistent with initial investor surprise or concern. However, this negative effect weakens and turns positive by the second and third disclosures. The *Third Disclosure* × *High PR* has a coefficient estimate of 0.0109 (t-statistic = 1.97), indicating a significantly positive market reaction. This pattern across time suggests a market learning process, in which initial negative reaction is gradually revised.

Overall, this section provides more details on how the market processes pay ratio information. Our evidence indicates a gradual learning pattern as investors become more familiar with, and are able to better interpret, the information conveyed by pay ratio disclosures.

5.4 Evidence of Active Portfolio Rebalancing

In this section, we address the potential concern that changes in portfolio weights is driven by market price fluctuations rather than active rebalancing decisions by institutional investors. To isolate the quantity effect, we follow the methodology in Pan et al. (2022) and construct portfolio weights using constant stock prices fixed at the end of the fiscal year prior to disclosure. This approach ensures that any observed change in a stock's portfolio weight reflects a change in the quantity of shares held, rather than valuation changes driven by price movements.

We re-estimate the regressions from Panel A of Table 9 using a new dependent variable, $\Delta StockWeight$, calculated using fixed stock prices. Further, to examine whether institutional rebalancing behavior differs between the first and subsequent pay ratio disclosures, we introduce a *First Disclosure* dummy variable into the specification. The results are presented in Table A9.

When stock prices are held constant, we still find that institutional investors increase their portfolio weight in high pay ratio firms following subsequent disclosures. In addition, the interaction between pay ratio and the *First Disclosure* dummy is negative and statistically significant, suggesting that investors initially reduce their exposure to high pay ratio firms, likely due to concerns over income inequality. This finding aligns with the evidence in Pan et al. (2022), who show that investors initially deviate away from firms with high pay ratios. Our analysis extends this finding by showing that this behavior reverses in subsequent disclosures, indicating a shift in institutional response over time as the pay ratio information is fully interpreted.

6 Summary and Conclusions

This study examines both short-term and long-run market responses to pay ratio disclosures. We find that while the initial market reaction is negative, this effect reverses over time, indicating a short-term overreaction to pay ratio disclosures. The reversal is particularly pronounced among firms with investors with higher inequality aversion. These findings support the managerial talent hypothesis, as high pay-ratio firms exhibit stronger operating performance. These firms have higher returns on assets, greater profitability, and lower risk-taking, as evidenced by lower ROA volatility. Additionally, high pay-ratio firms are associated with larger long-run returns, where firms with a higher ownership by investors with greater inequality aversion experience even stronger long-run performance.

To interpret these results, we examine the role of sell-side equity analysts in processing pay ratio information. We find that analysts are relatively more pessimistic toward these firms, potentially due to concerns about income inequality, which leads to lower forecast accuracy. Even local analysts with potentially superior information are unable to exploit their local advantage effectively in assessing these firms. Analysts' inability to properly assess high pay ratio firms likely slows learning learning about high pay ratio firms. We also examine the aggregate consensus forecasts and earnings surprises. Consistent with the evidence on analyst-level pessimism, high pay-ratio firms experience larger positive earnings surprises, indicating that the market initially underestimates these firms and is later positively surprised by their strong performance.

Analyzing institutional shareholdings, we observe that institutional investors initially reduce their holdings in high pay-ratio firms following disclosure, possibly due to public scrutiny. However, over time, they increase their investments in these firms. Examining portfolio allocations, we find similar results—institutional investors gradually overweigh high pay-ratio firms in the long run. These results indicate that learning by institutional investors is a likely channel through which long-run return reversal occurs.

To understand cross-sectional differences among institutions, we analyze the behavior of high inequality-averse investors. Our findings suggest that these investors recognize the strong performance of high pay-ratio firms. While they react more negatively in the short run when pay ratios are first disclosed, they are also quicker to reverse their positions compared to the average investor, indicating a faster learning process. In addition, we find that local institutional investors more actively trade high pay-ratio firms, increasing their shareholdings and overweighing these firms in their portfolios. Finally, we show that firms with higher institutional share purchases achieve even higher long-run returns. This finding highlights the important role of institutional investors in recognizing that high pay-ratio firms reflect managerial talent and strong operating performance.

Collectively, these findings complement recent evidence on market reactions to pay ratio disclosures. We provide empirical support for the notion that the stock market gradually incorporates pay ratio information into investment decisions over time, and the learning process may get delayed by inequality aversion of investors.

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Figure 1. Long Run Stock Performance After Pay Ratio Disclosures

This figure presents the cumulative abnormal returns over a 250-day trading period beginning five days before the first pay ratio announcement. The plot compares equally weighted abnormal returns of two portfolios. The solid *blue* line represents the *High Pay Ratio* portfolio, which consists of firms with pay ratios in the top quintile of the distribution. The solid *red* line represents the *Low Pay Ratio* portfolio, comprising firms in the bottom quintile of the pay ratio distribution.

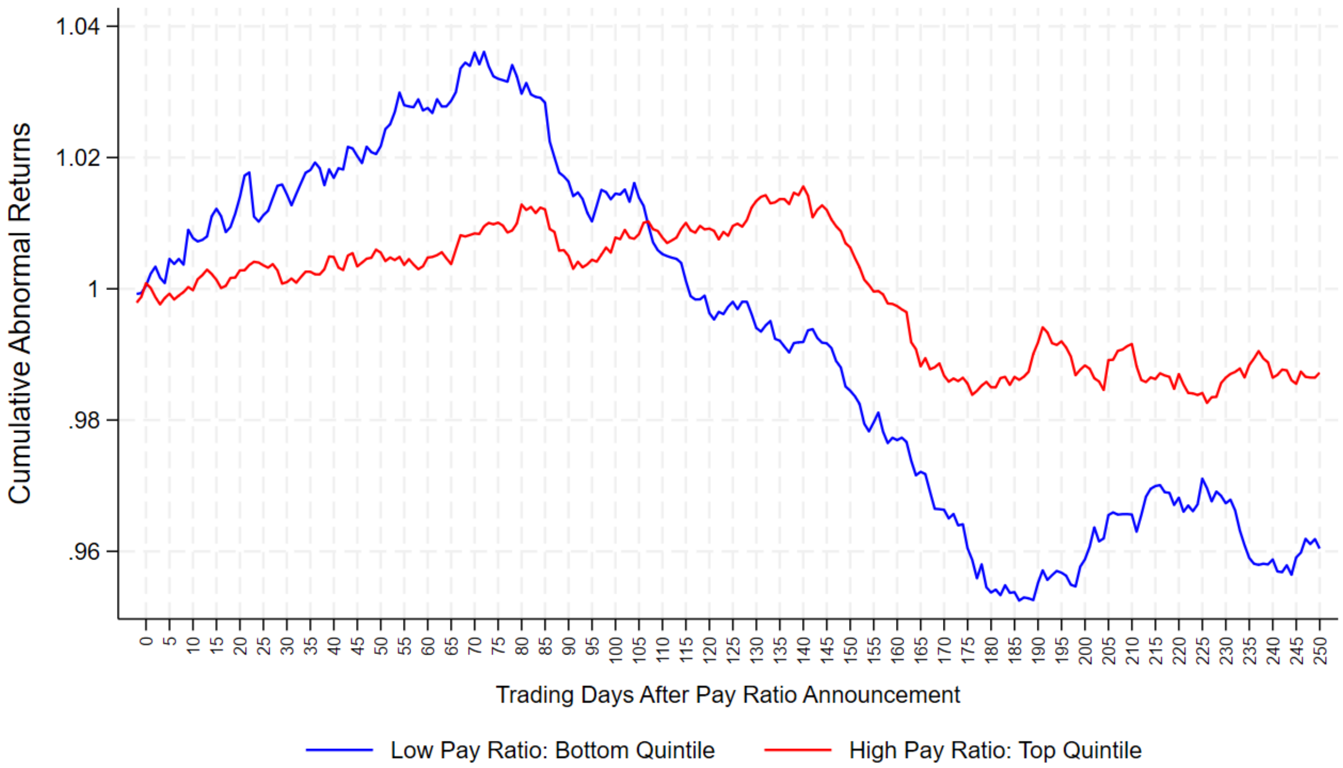

Figure 2. Long Run Stock Performance: Firms With High Inequality-Averse Investors

This figure illustrates the return reversal among firms with high inequality-averse investors. Firms are sorted into terciles based on the inequality aversion measure derived from investor locations. Firms are classified as *High IA* if they fall within the top 30% of inequality aversion distribution. Building on Figure 1, we introduce two additional portfolios. The solid *cranberry* line represents the equally weighted abnormal returns of a portfolio consisting of firms with both *High Pay Ratio & High IA*. Similarly, the solid *navy* line represents the equally weighted abnormal returns of a portfolio comprising firms with *Low Pay Ratio & High IA*.

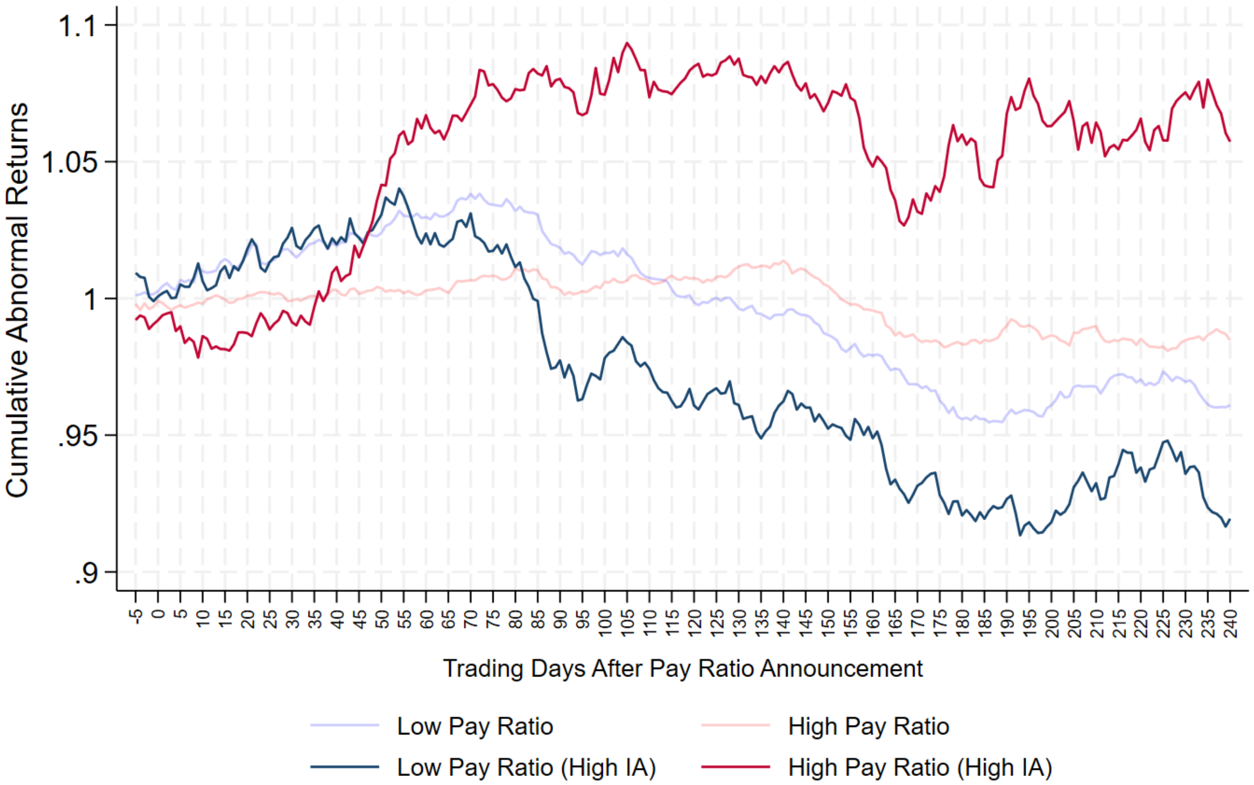

Figure 3. Long Run Stock Performance Across Four Disclosures of Pay Ratios

This figure presents the cumulative abnormal returns over a 250-day trading period for the first, second, third and fourth pay ratio announcement of firms with high inequality-averse investors. Firms are sorted into terciles based on the inequality aversion measure derived from investor locations. Firms are classified as *High IA* if they fall within the top 30% of inequality aversion distribution. The solid *cranberry* line represents the equally weighted abnormal returns of a portfolio consisting of firms with both *High Pay Ratio & High IA*. Similarly, the solid *navy* line represents the equally weighted abnormal returns of a portfolio comprising firms with *Low Pay Ratio & High IA*.

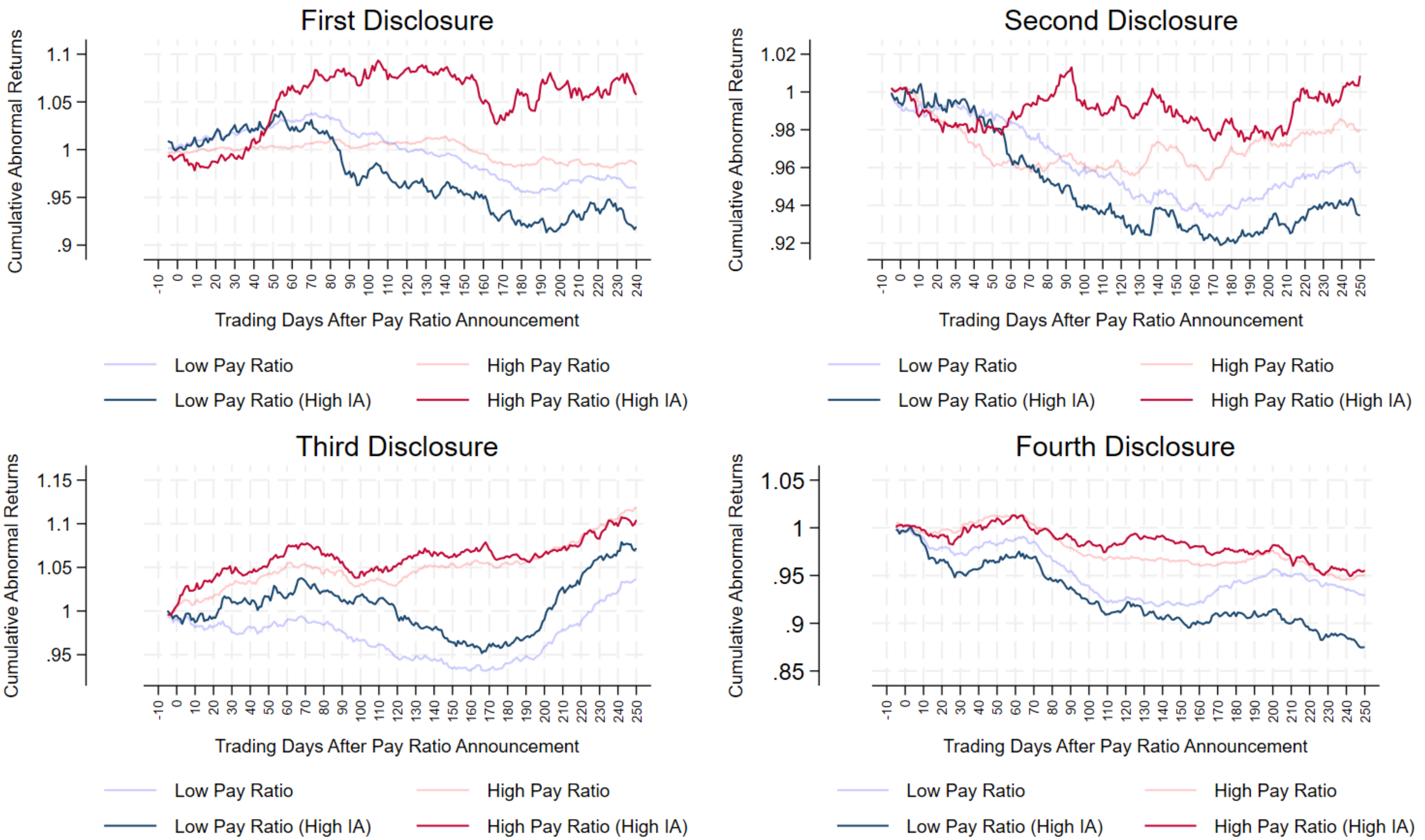

Figure 4. Income Inequality and Search Volume Intensity

This figure illustrates the relationship between state-level inequality aversion and internet search intensity for terms related to income inequality. Panel A and B display a scatter plot with the best-fitting line, showing the correlation between the search intensity for the keyword *Income Inequality* and state-level votes for Democrat Candidates across the 2016 and 2020 Presidential Elections. Panel B presents a scatter plot with the best-fitting line, highlighting the relationship between the search intensity for inequality-related keywords and the votes for Democrat Candidates. Specifically, we include search terms *Income Inequality*, *Wealth Inequality* and *Pay Ratios*. Panel C and D examine how search intensity for *Income Inequality*, and related terms correlate with state-level inequality aversion. The figure covers search intensity from January 2017 to December 2024.

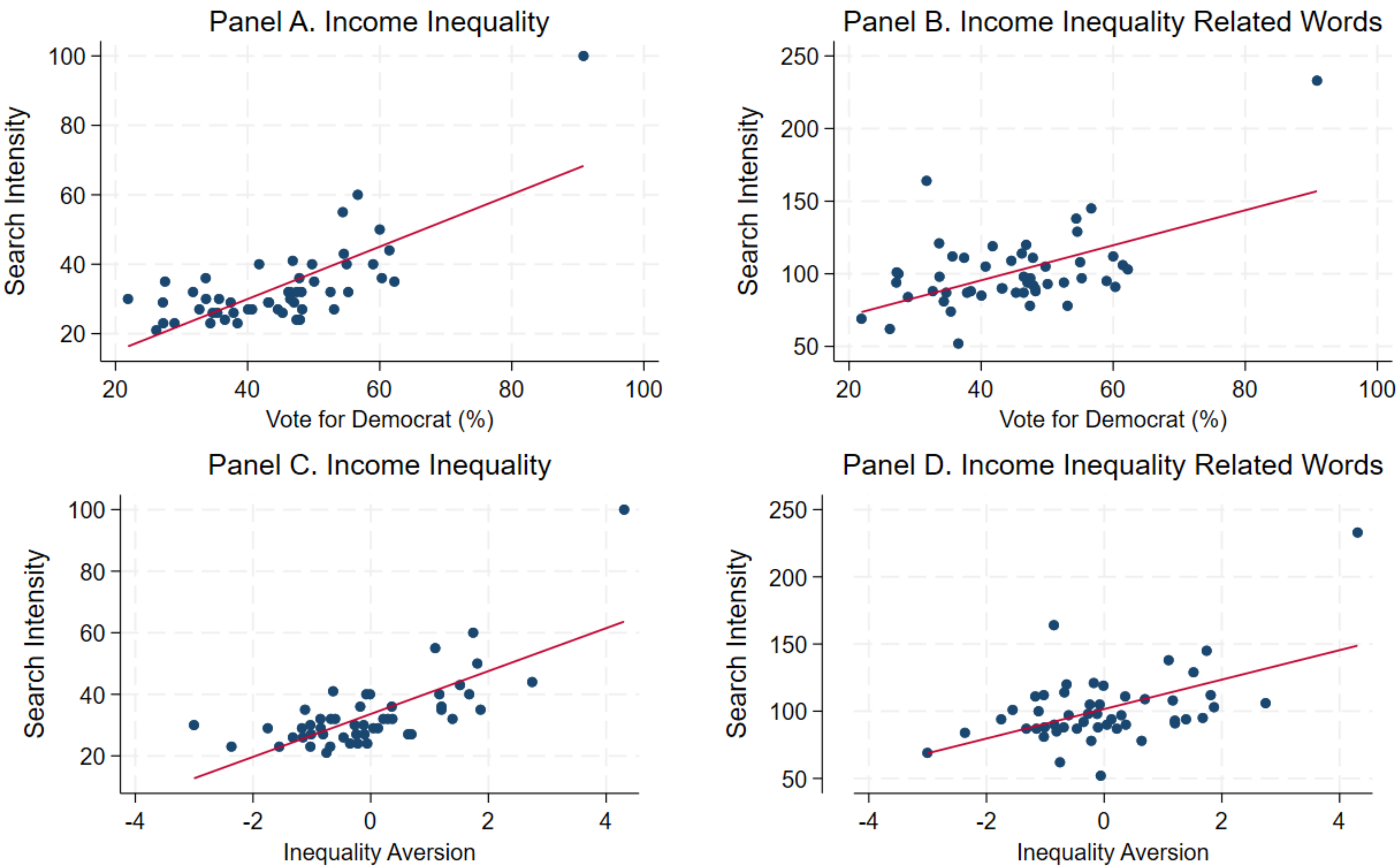

Figure 5. Monthly Returns After Pay Ratio Disclosure

This figure illustrates the relationship between pay ratios and excess returns over time. Firms classified as *High PR (Quintile)* are those in the top 20% of the pay ratio distribution in month t. To analyze this relationship, we replicate Column (7) of Table 3 by regressing *High PR (Quintile)* on excess returns each month from month $t+1$ to $t+12$. The figure plots the estimated coefficients for *High PR (Quintile)* across each month following the pay ratio disclosure. Bars represent the magnitude of the coefficients, while shading indicates the corresponding t-values. The sample period is from 2018 to 2023.

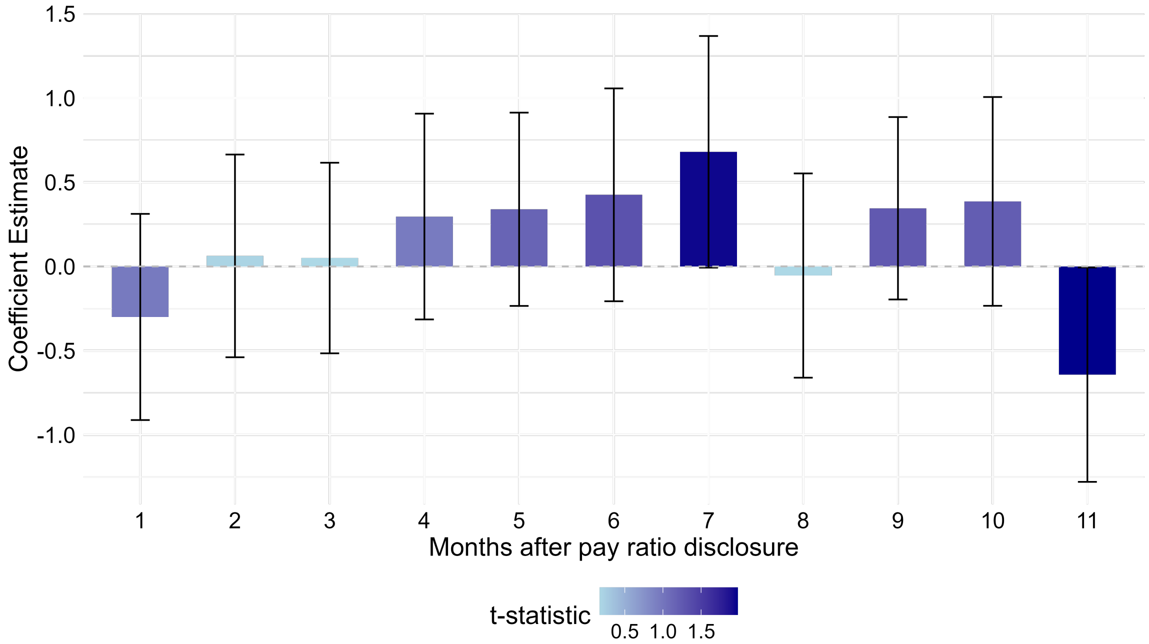

Table 1. Summary Statistics

This table summarizes the statistics of the data used in this study, covering the period from January 2017 to December 2023. Panel A provides firm fundamental data at an annual frequency, including pay ratio information and firm-specific characteristics. Panel B focuses on stock market data, presenting monthly returns, stock prices, trading volumes, and Fama-French three-factor betas, which are calculated using the past 60 months of returns. Panel C includes monthly time-series variables, such as the Fama-French five factors and the UMD factor. Panel D presents institutional investor-level variables. Panel E provides measures of analyst forecast errors and related characteristics. Panel F presents the statistics for earnings surprises. Panel G reports cumulative abnormal returns (CARs) used in our event study. Definitions for all variables are detailed in Appendix A1.

Variables	N	Mean	p25	p50	p75	STD
Panel A: Firm Fundamental Data						
Pay Ratio	13291	174.44	40.60	86.00	177.00	522.34
Employee Median Pay (in Millions)	13276	0.09	0.05	0.07	0.11	0.07
CEO Pay (in Millions)	13276	9.00	3.33	6.34	11.03	24.01
Ln(PR)	13291	4.45	3.73	4.47	5.18	1.15
Ln(Median Pay)	13285	11.13	10.77	11.14	11.59	0.76
Ln(CEO Pay)	13285	15.55	15.02	15.66	16.22	1.04
ROA (%)	9090	9.81	4.92	10.47	16.53	14.73
SD(ROA)	8614	0.02	0.00	0.01	0.02	0.04
Profit Margin	11255	-0.01	0.02	0.08	0.17	0.64
Size	11322	8.40	7.26	8.30	9.47	1.64
BM Ratio	11285	1.31	0.46	0.80	1.22	1.61
Dividend Yield (%)	11322	0.09	0.00	0.00	0.00	0.38
Dividend Yield Indicator	11328	0.11	0.00	0.00	0.00	0.31
Loss Indicator	11328	0.14	0.00	0.00	0.00	0.34
Ln(Market Cap)	11327	8.23	7.05	8.11	9.31	1.64
Number of disclosures	13291	3.65	2.00	4.00	5.00	1.95
IA: HQ	10944	0.55	-0.74	0.31	1.74	1.46
IA: Investors	9956	1.14	0.68	1.06	1.56	0.75
Panel B: Firm Stock Market Data						
Monthly Return (%)	149493	1.01	-5.97	0.61	7.20	11.93
Monthly Excess Return (%)	149493	0.82	-6.15	0.43	7.03	11.93
Beta Mkt-Rf	149383	1.03	0.68	0.98	1.31	0.58
Beta SMB	149383	0.67	0.10	0.55	1.05	0.99
Beta HML	149383	0.17	-0.20	0.22	0.61	0.73
Ln(Price)	149178	3.76	3.04	3.77	4.48	1.09
Ln(Volume)	133451	11.67	10.71	11.75	12.74	1.61
Panel C: Monthly Factors (in %)						
Mkt-Rf	79	0.98	-2.39	1.69	4.34	5.25
SMB	79	-0.17	-2.56	-0.16	1.52	3.20
HML	79	-0.18	-2.47	-0.52	2.15	4.30
UMD	79	0.13	-2.35	0.41	2.97	4.24
RMW	79	0.51	-1.28	0.43	1.74	2.34
CMA	79	0.02	-1.62	-0.52	1.30	2.73
Rf	79	0.17	0.01	0.15	0.33	0.16

Table 1: Summary Statistics (Continued)

Variables	N	Mean	p25	p50	p75	STD
Panel D: Institutional Data						
Excess Weight (%)	13635427	0.16	-0.04	0.00	0.07	0.66
Portfolio Size	13635427	7.27	0.00	0.01	0.16	37.58
No of Firms	13635427	1265.59	249.00	763.00	1870.00	1336.07
IA	13635427	0.70	-0.52	0.55	1.84	1.35
Panel E: Analysts Data						
FE	80845	-0.09	-0.27	-0.05	0.07	1.28
AFE	80845	0.67	0.06	0.19	0.57	1.53
No of Analyst Coverage	80845	20.00	12.00	19.00	26.00	9.83
Forecast Horizon	80845	2.58	2.00	3.00	3.00	0.72
Firm Experience	80845	4.55	3.00	5.00	6.00	1.54
No of Firms	80845	13.96	9.00	13.00	17.00	10.67
No of Industries	80845	2.93	1.00	2.00	4.00	2.36
Distance (miles)	59518	1012.20	232.62	749.94	1575.01	863.42
Panel F: Earnings Surprises						
SUE (Mean)	28789	0.0015	-0.0002	0.0008	0.0030	0.0067
SUE (Median)	28789	0.0014	-0.0002	0.0008	0.0030	0.0067
Panel G: Cumulative Abnormal Returns						
First Time Pay Ratio Disclosure						
CAR[-1,3] CAPM (%)	1338	0.32	-1.74	0.29	2.34	4.17
CAR[-1,3] Three Factors (%)	1338	0.02	-1.99	0.09	1.98	4.19
CAR[-1,3] Four Factors (%)	1338	0.03	-1.96	0.03	2.04	4.18
CAR[-1,3] Market Adjusted (%)	1337	0.34	-1.53	0.30	2.27	3.97

Table 2. First-Time Equity Market Reaction to Pay Ratios

This table reports the result from an event study examining the relationship between cumulative abnormal returns during the event window $[-1, +3]$ days around the proxy statement filing dates and the first reported pay ratios. Our main independent variable is *High PR (Quintile)*. *High PR (Quintile)* is equal to one if a firm's disclosed *Pay Ratio* lies in the top 20% of the sample distribution and zero otherwise. The control variables include the natural logarithm of total market capitalization and book-to-market ratio estimated at the beginning of the fiscal year. We report the results from cumulative abnormal returns based on the CAPM, Three Factors, Four Factors, and Market Adjusted models, respectively. Standard errors are double-clustered at the firms and announcement dates for columns (1)–(4) and at the headquarter states and announcement dates for columns (5)–(8). T-values are reported in parentheses. Significance levels are denoted as follows: *p<0.1; **p<0.05; ***p<0.01.

	Dependent Variable: CAR[-1,3]							
	CAPM	3 Factors	4 Factors	Market Adjusted	CAPM	3 Factors	4 Factors	Market Adjusted
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
High PR (Quintile)	-0.263**	-0.261**	-0.253**	-0.213**	0.105	0.099	0.115	0.194
	(-2.27)	(-2.38)	(-2.21)	(-2.09)	(0.48)	(0.50)	(0.48)	(1.07)
IA: Investors					0.298	0.172	0.155	0.550
					(0.60)	(0.37)	(0.28)	(1.42)
High PR (Quintile) × *IA: Investors*					-0.329*	-0.318*	-0.321	-0.352**
					(-1.83)	(-1.79)	(-1.52)	(-2.40)
IA: HQ					0.134	0.108	0.144	0.119
					(0.29)	(0.33)	(0.36)	(0.37)
High PR (Quintile) × *IA: HQ*					0.114	0.142	0.138	0.083
					(0.84)	(1.47)	(1.12)	(0.84)
Ln(Market Cap)	0.179*	0.326***	0.325***	0.181**	0.194**	0.340***	0.339***	0.196**
	(1.81)	(3.36)	(3.31)	(2.04)	(2.02)	(4.16)	(4.09)	(2.58)
BM ratio	0.175	0.333	0.398	0.104	0.102	0.327	0.361	0.066
	(0.46)	(0.85)	(1.01)	(0.31)	(0.38)	(1.34)	(1.27)	(0.28)
Constant	-0.401	-1.958**	-1.993***	-0.556	-0.903	-2.349***	-2.363***	-1.388**
	(-0.54)	(-2.58)	(-2.63)	(-0.90)	(-0.95)	(-3.19)	(-2.71)	(-2.04)
Observations	1338	1338	1338	1358	1157	1157	1157	1174
Adjusted R^2	0.003	0.008	0.008	0.003	0.006	0.012	0.013	0.007

Table 3. Pay Ratio and Long Run Returns

This table presents the results from the return regression. The dependent variable is the *monthly excess return* $R_{i,t+1}$ - Rf_{t+1}. The main independent variables are *Ln(PR)* and two dummy variables capturing firms with high pay ratios, respectively *High PR (Quintile)* and *High PR (Tercile)*. *High PR (Quintile)* is equal to one if a firm's *Pay Ratio* in month t lies in the top 20% of the sample distribution and zero otherwise. *High PR (Tercile)* is equal to one if a firm's *Pay Ratio* in month t lies in the top 30% of the sample distribution and zero otherwise. Panel A presents the results of a pooled regression, where we regress pay ratio measures in month t on future returns from $t+1$ to $t+12$. Panel B refines this analysis by segmenting the one-year horizon into three-month intervals. We include Fama and French three-factor betas measured using the past 60 months of returns. Other controls include log market capitalization, book-to-market ratio and dividend yield as well as cumulative returns over $t-3$ to $t-2$, $t-6$ to $t-4$, and $t-12$ to $t-7$, trading volume, and stock price in the previous two months. We include *Industry* × *Year* fixed effects in our regressions. The estimation period is from January 2018 to December 2023. Standard errors are clustered at the firm level, and t-values are reported in parentheses. Significance levels are denoted as follows:*p<0.1; **p<0.05; ***p<0.01.

	Panel A. Pooled regression								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
High PR (Quintile)	0.333***			0.332***			0.317***		
	(3.99)			(3.89)			(3.20)		
High PR (Tercile)		0.396***			0.401***			0.386***	
		(5.02)			(4.88)			(4.03)	
Ln(PR)			0.188***			0.196***			0.159***
			(5.21)			(5.18)			(3.50)
Ln(Market Cap)	-0.261***	-0.282***	-0.297***	-0.332***	-0.353***	-0.372***	-1.170***	-1.186***	-1.178***
	(-13.41)	(-13.28)	(-12.77)	(-13.82)	(-13.95)	(-13.78)	(-15.11)	(-15.11)	(-15.16)
Beta Mkt-Rf				0.385***	0.379***	0.374***	-0.044	-0.047	-0.048
				(5.24)	(5.19)	(5.12)	(-0.44)	(-0.48)	(-0.48)
Beta SMB				-0.087	-0.084	-0.089	-0.272***	-0.269***	-0.273***
				(-1.53)	(-1.51)	(-1.60)	(-3.34)	(-3.37)	(-3.39)
Beta HML				0.154**	0.141**	0.121*	0.369***	0.355***	0.338***
				(2.39)	(2.20)	(1.86)	(4.26)	(4.12)	(3.88)
BM ratio				-0.509***	-0.512***	-0.514***	-0.494***	-0.497***	-0.498***
				(-9.80)	(-9.89)	(-9.89)	(-8.60)	(-8.69)	(-8.69)
Dividend Yield				0.356***	0.358***	0.347***	0.249**	0.254**	0.244**
				(3.99)	(4.00)	(3.89)	(2.34)	(2.39)	(2.30)
CRet(-2,-3)							0.004***	0.004***	0.004***
							(12.64)	(12.65)	(12.66)
CRet(-4,-6)							0.000***	0.000***	0.000***
							(4.08)	(4.09)	(4.09)
CRet(-7,-12)							0.000	0.000	0.000
							(0.75)	(0.74)	(0.75)
Price							0.666***	0.663***	0.643***
							(7.49)	(7.41)	(7.16)
Volume							0.883***	0.877***	0.864***
							(13.91)	(13.74)	(13.40)
Constant	4.701***	4.948***	4.466***	6.028***	6.301***	5.857***	6.447***	6.715***	6.250***
	(16.31)	(16.13)	(16.37)	(15.28)	(15.48)	(15.33)	(13.67)	(13.87)	(13.64)
Industry × Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	131972	131972	131972	131352	131352	131352	106026	106026	106026
Adjusted R^2	0.021	0.021	0.021	0.023	0.023	0.023	0.026	0.026	0.026

Table 3: Pay Ratios and Long Run Returns (continued)

In Panel B, the dependent variable is the cumulative excess return over a three-month horizon. Specifically, *Cumulative Excess Return*$_{1-3}$ represents the cumulative excess return from month $t+1$ to $t+3$. The key independent variables include *Ln(PR)*, disclosed in month t, along with two dummy variables identifying firms with high pay ratios: *High PR (Quintile)* and *High PR (Tercile)*. We replicate specifications (7), (8), and (9) from Panel A and report the estimated coefficients for our main independent variables. Standard errors are clustered at the firm level, and t-values are reported in parentheses. Significance levels are denoted as follows:*p<0.1; **p<0.05; ***p<0.01.

Panel B. Three-month cumulative return regression									
	Cumulative Excess Return$_{1-3}$			*Cumulative Excess Return*$_{2-4}$			*Cumulative Excess Return*$_{3-5}$		
High PR (Quintile)	-0.321			0.387			0.641		
	(-0.63)			(0.82)			(1.37)		
High PR (Tercile)		-0.121			0.297			0.984**	
		(-0.24)			(0.67)			(2.24)	
Ln(PR)			-0.289			0.180			0.567***
			(-1.07)			(0.80)			(2.69)
Observations	8833	8833	8833	8833	8833	8833	8833	8833	8833
Adjusted R^2	0.025	0.025	0.025	0.017	0.017	0.017	0.010	0.011	0.011
	Cumulative Excess Return$_{4-6}$			*Cumulative Excess Return*$_{5-7}$			*Cumulative Excess Return*$_{6-8}$		
High PR (Quintile)	0.886*			1.476***			1.221**		
	(1.75)			(2.65)			(2.13)		
High PR (Tercile)		0.915*			1.503***			1.255**	
		(1.89)			(3.03)			(2.38)	
Ln(PR)			0.444*			0.470*			0.476*
			(1.86)			(1.93)			(1.83)
Observations	8831	8831	8831	8794	8794	8794	8772	8772	8772
Adjusted R^2	0.020	0.020	0.020	0.025	0.025	0.025	0.027	0.027	0.027
	Cumulative Excess Return$_{7-9}$			*Cumulative Excess Return*$_{8-10}$			*Cumulative Excess Return*$_{9-11}$		
High PR (Quintile)	0.972*			0.752			0.073		
	(1.68)			(1.47)			(0.14)		
High PR (Tercile)		1.644***			1.265***			0.962*	
		(3.17)			(2.72)			(1.89)	
Ln(PR)			0.626**			0.395			0.264
			(2.35)			(1.60)			(1.04)
Observations	8757	8757	8757	8720	8720	8720	8668	8668	8668
Adjusted R^2	0.031	0.032	0.032	0.037	0.038	0.037	0.020	0.020	0.020

Table 4. Pay Ratio, Long Run Returns and Inequality Aversion

This table examines whether the relationship between pay ratios and long-run returns varying with different levels of inequality aversion. The dependent variable is the monthly excess return $R_{i,t}$ - Rf_t. The main independent variables are measures of Pay Inequality using *Ln(PR)* and two dummy variables capturing firms with high pay ratios, respectively *High PR (Quintile)* and *High PR (Tercile)*. *High PR (Quintile)* is equal to one if a firm's *Pay Ratio* in month t lies in the top 20% of the sample distribution and zero otherwise. *High PR (Tercile)* is equal to one if a firm's *Pay Ratio* in month t lies in the top 30% of the sample distribution and zero otherwise. In this analysis, we introduce interaction terms with two measures of inequality aversion: one at the firm's headquarters level, denoted as *High IA: HQ*, and the other at the investors' location level, denoted as *High IA: Investors*. *High IA: HQ* is a binary variable equal to one if the inequality aversion in the state where the firm is located falls within the top 30% of the sample distribution in month t, and zero otherwise. Similarly, *High IA: Investors* is equal to one if the inequality aversion in the investors' location ranks in the top 30% of the sample distribution in month t, and zero otherwise. We include Fama and French three-factor betas measured using the past 60 months of returns. Other controls include log market capitalization, book-to-market ratio and dividend yield as well as cumulative returns over $t-3$ to $t-2$, $t-6$ to $t-4$, and $t-12$ to $t-7$, trading volume, and stock price in the previous two months. We include *Industry* $\times$ *Year* fixed effects in our panel regressions. The estimation period is from January 2018 to December 2023. Standard errors are clustered at the firm level and t-values are reported in parentheses. Significance levels are denoted as follows:*p<0.1; **p<0.05; ***p<0.01.

	(1)	(2)	(3)	(4)	(5)	(6)
High PR (Quintile)	0.345***			0.228*		
	(2.85)			(1.84)		
High PR (Quintile) $\times$ *High IA: HQ*	0.116					
	(0.59)					
High PR (Tercile)		0.377***			0.280**	
		(3.42)			(2.49)	
High PR (Tercile)$\times$ *High IA: HQ*		0.147				
		(0.85)				
Ln(PR)			0.163***			0.110*
			(2.79)			(1.90)
Ln(PR) $\times$ *High IA: HQ*			0.056			
			(0.80)			
High PR (Quintile) $\times$ *High IA: Investors*				0.376*		
				(1.91)		
High PR (Tercile)$\times$ *High IA: Investors*					0.424**	
					(2.43)	
Ln(PR) $\times$ *High IA: Investors*						0.162**
						(2.34)
High IA: HQ	-0.055	-0.064	-0.250			
	(-0.60)	(-0.65)	(-0.78)			
High IA: Investors				-0.074	-0.133	-0.678**
				(-0.80)	(-1.28)	(-2.12)
Constant	7.846***	8.113***	7.668***	7.976***	8.312***	8.022***
	(16.01)	(15.83)	(15.96)	(16.10)	(15.78)	(16.13)
Firm-level controls	Yes	Yes	Yes	Yes	Yes	Yes
Stock-level controls	Yes	Yes	Yes	Yes	Yes	Yes
Industry $\times$ Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	102776	102776	102776	94272	94272	94272
Adjusted R^2	0.025	0.025	0.025	0.024	0.024	0.024

Table 5. Pay Ratio and Operating Performance

This table reports the relationship between pay ratios and operating performance. We use Return on Assets - ROA, Standard Deviation of ROA and Profit Margin as measures of operating performance and regress our dependent variables on one-year lagged *Ln(PR)*. Firm-level controls include the natural logarithm of market capitalization, book-to-market ratio, leverage, dividend yield and loss indicator. Standard errors are clustered at the firm level, and t-statistics are reported in parentheses. Significance levels are denoted as follows:*p<0.1; **p<0.05; ***p<0.01.

	ROA			STD(ROA)			Profit Margin		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Ln(PR)	0.005***	0.005***	0.004**	-0.003***	-0.004***	-0.004***	0.018***	0.026***	0.024***
	(3.39)	(2.78)	(2.00)	(-3.91)	(-3.81)	(-3.38)	(3.09)	(3.45)	(3.10)
Ln(CEO Pay)	-0.008***	-0.007***	-0.006**	0.003***	0.004***	0.004***	-0.025***	-0.029***	-0.027***
	(-3.76)	(-2.86)	(-2.38)	(3.32)	(3.04)	(2.80)	(-3.00)	(-2.95)	(-2.81)
Ln(Market Cap)	0.004***	0.004***	0.004***	-0.002***	-0.001***	-0.002***	0.015***	0.015***	0.015***
	(5.19)	(4.40)	(4.44)	(-5.65)	(-4.49)	(-4.19)	(5.14)	(4.54)	(4.63)
BM ratio	-0.005***	-0.007***	-0.007***	-0.002***	-0.002***	-0.002***	0.015***	0.010***	0.010***
	(-4.83)	(-5.09)	(-4.89)	(-4.36)	(-3.53)	(-2.91)	(7.64)	(3.58)	(3.21)
Leverage	0.025***	0.030***	0.028***	0.007*	0.009*	0.009**	0.065**	0.067**	0.060*
	(3.98)	(4.26)	(3.76)	(1.90)	(1.91)	(2.00)	(2.46)	(2.11)	(1.85)
Loss Indicator	-0.023***	-0.030***	-0.032***	0.009***	0.008***	0.008***	-0.042*	-0.048**	-0.056**
	(-4.13)	(-5.58)	(-5.72)	(4.89)	(4.05)	(3.89)	(-1.81)	(-2.05)	(-2.25)
Dividend Yield	1.062***	0.762**	0.667	-0.012	-0.138	-0.192	2.273**	2.153**	2.133**
	(2.67)	(1.97)	(1.61)	(-0.10)	(-1.17)	(-1.27)	(2.41)	(2.30)	(2.09)
Dividend Yield Indicator	-0.017***	-0.013***	-0.013**	-0.003*	-0.001	-0.002	-0.019	-0.025*	-0.028*
	(-3.90)	(-2.95)	(-2.50)	(-1.72)	(-0.56)	(-0.88)	(-1.34)	(-1.83)	(-1.91)
Lag Dependent Variables	0.677***	0.664***	0.660***	0.186***	0.170***	0.168***	0.713***	0.705***	0.710***
	(34.75)	(32.46)	(31.62)	(3.95)	(3.68)	(3.57)	(19.16)	(18.28)	(17.92)
Constant	0.096***	0.087***	0.073***	-0.011	-0.014	-0.015	0.147	0.190*	0.172
	(3.92)	(3.07)	(2.63)	(-1.02)	(-1.10)	(-1.07)	(1.61)	(1.77)	(1.64)
Industry × Year FE	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
State × Year FE	No	No	Yes	No	No	Yes	No	No	Yes
Observations	7098	7069	6851	6646	6631	6442	8888	8860	8625
Adjusted R^2	0.565	0.624	0.628	0.094	0.094	0.095	0.593	0.609	0.612

Table 6. Pay Ratio, Managerial Ability and Long Run Returns

This table presents the results from the return regression. The dependent variable is the *monthly excess return* $R_{i,t+1}$ - Rf_{t+1}. The main independent variables are *Ln(PR)* and two dummy variables capturing firms with high pay ratios, respectively *High PR (Quintile)* and *High PR (Tercile)*. *High PR (Quintile)* is equal to one if a firm's *Pay Ratio* in month t lies in the top 20% of the sample distribution and zero otherwise. *High PR (Tercile)* is equal to one if a firm's *Pay Ratio* in month t lies in the top 30% of the sample distribution and zero otherwise. The second variable of interest is the managerial ability score, denoted as *MA*. *High MA (Quintile)* is equal to one if a firm's managerial ability in month t falls within the top 20% of the distribution, while *High MA (Tercile)* is equal to one if it falls within the top 30%. In this analysis, we introduce interaction terms with a measure of inequality aversion at the investors' location level, denoted as *High IA*. *High IA* is equal to one if the inequality aversion in the investors' location ranks in the top 30% of the sample distribution in year t, and zero otherwise. We include Fama and French three-factor betas measured using the past 60 months of returns. Other controls include log market capitalization, book-to-market ratio, dividend yield, loss indicator as well as cumulative returns over $t-3$ to $t-2$, $t-6$ to $t-4$, and $t-12$ to $t-7$, trading volume, and stock price in the previous two months. We include *Industry* $\times$ *Year* fixed effects in certain specifications. The estimation period is from January 2018 to December 2022, as the managerial ability data is only available through 2022. Standard errors are clustered at the firm level, and t-values are reported in parentheses. Significance levels are denoted as follows:*p<0.1; **p<0.05; ***p<0.01.

	Dependent variable: *Monthly excess return* $R_{i,t+1}$ - Rf_{t+1}					
	(1)	(2)	(3)	(4)	(5)	(6)
High PR (Quintile)	0.053			0.317**		
	(0.36)			(2.13)		
High PR (Quintile) $\times$ *High IA*	0.794***			0.711***		
	(2.91)			(2.75)		
High MA (Quintile)	1.296***			0.974***		
	(7.83)			(5.84)		
High MA (Quintile) $\times$ *High IA*	0.052			0.244		
	(0.17)			(0.85)		
High PR (Tercile)		0.128			0.374***	
		(0.92)			(2.60)	
High PR (Tercile) $\times$ *High IA*		0.902***			0.827***	
		(3.45)			(3.28)	
High MA (Tercile)		0.932***			0.800***	
		(6.73)			(5.92)	
High MA (Tercile) $\times$ *High IA*		-0.082			-0.057	
		(-0.31)			(-0.23)	
Ln(PR)			0.032			0.215***
			(0.49)			(3.11)
Ln(PR) $\times$ *High IA*			0.424***			0.351***
			(3.78)			(3.21)
MA			3.121***			3.155***
			(6.47)			(6.64)
MA $\times$ *High IA*			0.172			-0.111
			(0.23)			(-0.16)
High IA	-0.710***	-0.785***	-2.421***	-0.566***	-0.605***	-1.903***
	(-4.11)	(-3.93)	(-4.33)	(-3.52)	(-3.23)	(-3.52)
Firm-level controls	Yes	Yes	Yes	Yes	Yes	Yes
Stock-level controls	Yes	Yes	Yes	Yes	Yes	Yes
Industry $\times$ Year FE	No	No	No	Yes	Yes	Yes
Observations	48743	48743	48743	48743	48743	48743
Adjusted R^2	0.021	0.021	0.021	0.035	0.035	0.036

Table 7. Pay Ratio and Analyst Forecast

This table examines the relationship between analysts' quarterly forecast errors and pay ratios. The main dependent variables are *Forecast Errors* ($FE_{i,j,t+1}$) and *Absolute Forecast Errors* ($AFE_{i,j,t+1}$). $AFE_{i,j,t+1}$ is defined as $\left|\frac{Forecast\ Value_{i,j,t+1} - Actual\ Value_{j,t+1}}{Stock\ Price_{j,t}}\right|$, where $Price_{j,t}$ is the price at the forecast month. We keep all the forecasts one month prior to the earnings announcement date. The main independent variable is *Ln(PR)* disclosed at time t. Analyst controls are forecast horizon, firm experience, and analyst coverage, including the number of firms and number of industries an analyst covers. In certain specifications, we include the interaction of *Ln(PR)* with analysts' distance from the firms to capture the effect of local analysts. *Distance* is a dummy variable equal to one if the analyst covering a firm is located within 250 miles of the firm's headquarters, and zero otherwise. The estimation period is from January 2018 to December 2023. Standard errors are clustered at the analyst level, and t-values are reported in parentheses. Significance levels are denoted as follows: *p<0.1; **p<0.05; ***p<0.01.

	Dependent Variable: $FE_{i,j,t+1}$				Dependent Variable: $AFE_{i,j,t+1}$			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
$Ln(PR)_{i,t}$	-0.012**	-0.011**	-0.023***	-0.021***	0.034***	0.038***	0.039***	0.043***
	(-2.27)	(-1.98)	(-3.71)	(-3.31)	(6.11)	(6.56)	(5.74)	(6.17)
Distance			0.037	0.053			0.066	0.026
			(0.70)	(1.01)			(1.10)	(0.40)
$Ln(PR)_{i,t} \times Distance$			-0.009	-0.012			-0.014	-0.004
			(-0.93)	(-1.15)			(-1.19)	(-0.31)
Ln(Market Cap)	0.035***	0.034***	0.044***	0.046***	-0.109***	-0.114***	-0.106***	-0.113***
	(8.47)	(7.69)	(9.90)	(9.43)	(-19.66)	(-19.15)	(-17.94)	(-17.80)
BM ratio	0.009	0.008	0.013**	0.014**	0.067***	0.062***	0.070***	0.064***
	(1.59)	(1.41)	(2.11)	(2.40)	(9.25)	(8.83)	(8.04)	(7.81)
Leverage	-0.093***	-0.101***	-0.121***	-0.122***	0.464***	0.452***	0.427***	0.411***
	(-2.66)	(-2.64)	(-3.27)	(-2.98)	(12.15)	(11.01)	(11.21)	(10.00)
Dividend Yield	0.562	1.111	-1.280	-0.957	5.595***	5.626***	6.520***	6.018***
	(0.38)	(0.79)	(-0.75)	(-0.59)	(3.76)	(3.76)	(3.80)	(3.58)
Loss	0.115***	0.116***	0.090***	0.117***	0.392***	0.386***	0.370***	0.364***
	(4.02)	(4.02)	(2.89)	(3.63)	(14.02)	(13.93)	(12.17)	(11.93)
Firm Experience	-0.006	-0.004	-0.008*	-0.008*	-0.012**	-0.012**	-0.004	-0.004
	(-1.53)	(-1.09)	(-1.69)	(-1.80)	(-2.40)	(-2.54)	(-0.80)	(-0.69)
Lag Dependent Variables	19.530***	19.203***	20.402***	20.016***	0.241***	0.237***	0.255***	0.250***
	(20.61)	(20.22)	(20.12)	(19.62)	(21.08)	(20.84)	(21.97)	(21.25)
Constant	-0.365***	-0.371***	-0.374***	-0.408***	0.993***	1.038***	0.902***	0.960***
	(-8.57)	(-8.24)	(-7.29)	(-7.84)	(17.90)	(17.64)	(15.06)	(15.31)
Analyst × Quarter-Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry × Quarter-Year FE	No	Yes	No	Yes	No	Yes	No	Yes
Observations	90620	90553	70283	70186	90620	90553	70283	70186
Adjusted R^2	0.338	0.354	0.352	0.370	0.524	0.536	0.535	0.550

Table 8. Pay Ratio and Earnings Surprises

This table analyzes the relationship between earnings surprises and pay ratios. The main dependent variables are $SUE_{i,t+1}(Mean)$ and $SUE_{i,t+1}(Median)$. *SUE (Standardized Unexpected Earnings)* is calculated as the firm's actual earnings per share (EPS) at the end of the forecast quarter minus the I/B/E/S consensus forecast of quarterly EPS, divided by the stock price two months prior. Columns (1)-(3) use the mean I/B/E/S consensus forecast, while Columns (4)-(6) use the median consensus forecast. We keep the consensus forecast one month prior to the earnings announcement date. The key independent variables are *Ln(PR)*, disclosed at time t and two dummy variables capturing firms with high pay ratios, respectively *High PR (Quintile)* and *High PR (Tercile)*. In Panel A, we report our baseline result. In Panel B, we include interaction terms between the key independent variables and a dummy variable for firms with highly inequality-averse investors, denoted as *High IA*. Firm-level control variables include the natural logarithm of market capitalization and the book-to-market ratio. The estimation period spans January 2018 to December 2023. Standard errors are clustered at the firm and quarter-year level, and t-values are reported in parentheses. Significance levels are denoted as follows: *p<0.1; **p<0.05; ***p<0.01.

	Panel A. Baseline					
	$SUE_{i,t+1}(Mean)$			$SUE_{i,t+1}(Median)$		
	(1)	(2)	(3)	(4)	(5)	(6)
$High\ PR\ (Quintile)_{i,t}$	0.0003**			0.0002*		
	(2.11)			(1.79)		
$High\ PR\ (Tercile)_{i,t}$		0.0002*			0.0002	
		(1.70)			(1.35)	
$Ln(PR)_{i,t}$			0.0002***			0.0002**
			(2.73)			(2.45)
Ln(Market Cap)	-0.0003***	-0.0003***	-0.0003***	-0.0003***	-0.0003***	-0.0003***
	(-8.07)	(-7.79)	(-8.12)	(-7.40)	(-7.11)	(-7.46)
BM ratio	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	(0.24)	(0.23)	(0.11)	(0.35)	(0.34)	(0.23)
Constant	0.0041***	0.0041***	0.0037***	0.0039***	0.0039***	0.0035***
	(10.96)	(10.77)	(9.92)	(10.25)	(10.04)	(9.33)
Quarter-Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	28682	28682	28682	28682	28682	28682
Adjusted R^2	0.047	0.047	0.047	0.047	0.047	0.047

	Panel B. Interactions with High Inequality-Averse Investors					
	$SUE_{i,t+1}(Mean)$			$SUE_{i,t+1}(Median)$		
	(1)	(2)	(3)	(4)	(5)	(6)
$High\ PR\ (Quintile)_{i,t}$	0.0001			0.0000		
	(0.73)			(0.26)		
$High\ PR\ (Quintile)_{i,t} \times High\ IA$	0.0006**			0.0007***		
	(2.42)			(2.70)		
$High\ PR\ (Tercile)_{i,t}$		0.0001			-0.0000	
		(0.50)			(-0.02)	
$High\ PR\ (Tercile)_{i,t} \times High\ IA$		0.0005**			0.0006***	
		(2.41)			(2.71)	
$Ln(PR)_{i,t}$			0.0001			0.0001
			(1.39)			(0.95)
$Ln(PR)_{i,t} \times High\ IA$			0.0002**			0.0002**
			(2.00)			(2.21)
High IA	-0.0002*	-0.0003**	-0.0010**	-0.0003**	-0.0003**	-0.0012**
	(-1.76)	(-1.98)	(-2.02)	(-2.19)	(-2.43)	(-2.30)
Ln(Market Cap)	-0.0003***	-0.0003***	-0.0004***	-0.0003***	-0.0003***	-0.0003***
	(-7.93)	(-7.75)	(-8.00)	(-7.26)	(-7.06)	(-7.28)
BM ratio	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000
	(-0.27)	(-0.30)	(-0.41)	(-0.19)	(-0.22)	(-0.32)
Constant	0.0044***	0.0044***	0.0042***	0.0041***	0.0042***	0.0041***
	(11.02)	(10.94)	(9.72)	(10.39)	(10.29)	(9.36)
Quarter-Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	25205	25205	25205	25205	25205	25205
Adjusted R^2	0.047	0.047	0.047	0.046	0.046	0.047

Table 9. Pay Ratio and Changes in Institutional Shareholdings

This table presents the analysis of changes in institutional shareholdings over four quarters following pay ratio disclosures. The main independent variable $Ln(PR)_{i,t}$ is the logarithm of the pay ratio disclosed in quarter t. $\Delta Share_{ij,t}$ represents the percentage change in the number of shares for firm j in the portfolio of institutional investor i between quarter t and $t-1$. $\Delta Share_{ij,t+1}$ captures the institutional percentage change in shares one quarter after the disclosure, measured by the change between quarter $t+1$ and t and so forth. To account for overall market trends in a given quarter, we de-mean $\Delta Share_{ij,t}$ by subtracting the average change in shares across the entire market in quarter t. This adjustment ensures that our analysis captures deviations in institutional trading behavior relative to the broader market, rather than reflecting general market movements. Panel A examines whether institutional investors adjust their shareholdings in response to pay ratio disclosures. Panel B extends this analysis by interacting the main independent variable with a measure of inequality aversion at the institutional investor's location, assessing whether investors in high inequality-averse regions buy or sell shares more aggressively. In Panel C, we include an interaction between *Ln(PR)* and the distance of institutional investors from the firm to capture the effect of local institutional ownership. *Nearby Firm* is a dummy variable equal to one if the institutional investor holding the firm is located within 250 miles of the firm's headquarters, and zero otherwise. Firm-level controls include log market capitalization, book-to-market ratio, leverage, dividend yield, and a loss indicator. Institutional investor controls consist of portfolio size and the number of firms held within a quarter-year period. The estimation period spans January 2018 to December 2023. Standard errors are clustered at the institutional investor level, and t-statistics are presented in parentheses. Significance levels are denoted as follows: *p<0.1; **p<0.05; ***p<0.01.

	Panel A. All Institutional Investors			
	$\Delta Share_{ij,t}$	$\Delta Share_{ij,t+1}$	$\Delta Share_{ij,t+2}$	$\Delta Share_{ij,t+3}$
$Ln(PR)_{i,t}$	-0.099***	0.129***	0.149***	0.225***
	(-28.34)	(47.06)	(40.25)	(47.59)
Institutional Investor Controls	Yes	Yes	Yes	Yes
Firm Controls	Yes	Yes	Yes	Yes
Institutional Investor FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
Observations	2521726	3581358	3346644	2936588
Adjusted R^2	0.050	0.045	0.055	0.046

	Panel B. High Inequality-Averse Institutional Investors			
	$\Delta Share_{ij,t}$	$\Delta Share_{ij,t+1}$	$\Delta Share_{ij,t+2}$	$\Delta Share_{ij,t+3}$
$Ln(PR)_{i,t}$	-0.150***	0.128***	0.120***	0.178***
	(-18.78)	(15.40)	(10.34)	(18.83)
$Ln(PR)_{i,t} \times IA$	0.067***	0.002	0.041***	0.061***
	(7.06)	(0.20)	(2.99)	(6.26)
Institutional Investor Level Controls	Yes	Yes	Yes	Yes
Firm Level Controls	Yes	Yes	Yes	Yes
Institutional Investor FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
Observations	2401565	3407795	3183484	2794991
Adjusted R^2	0.050	0.045	0.054	0.045

Table 9: Pay Ratios and Changes in Institutional Shareholdings (continued)

	Panel C. Local Institutional Investors			
	$\Delta Share_{ij,t}$	$\Delta Share_{ij,t+1}$	$\Delta Share_{ij,t+2}$	$\Delta Share_{ij,t+3}$
$Ln(PR)_{i,t}$	-0.115***	0.130***	0.150***	0.252*
	(-26.79)	(34.61)	(30.01)	(1.95)
$NearbyFirm$	0.176***	-0.148***	-0.133***	-0.020
	(4.24)	(-5.05)	(-3.74)	(-0.18)
$Ln(PR)_{i,t} \times NearbyFirm$	-0.029***	0.033***	0.020***	-0.002
	(-3.64)	(5.82)	(2.98)	(-0.11)
IA	1.510***	0.084	0.996***	1.604
	(6.34)	(0.43)	(3.65)	(1.23)
$Ln(PR)_{i,t} \times IA$	0.009**	-0.000	-0.000	-0.010
	(2.47)	(-0.06)	(-0.04)	(-1.39)
Institutional Investor Level Controls	Yes	Yes	Yes	Yes
Firm Level Controls	Yes	Yes	Yes	Yes
Institutional Investor FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
Observations	1954517	2749682	2568653	2266115
Adjusted R^2	0.050	0.046	0.057	0.046

Table 10. Pay Ratio and Institutional Portfolio Weights

This table examines the relationship between institutional portfolio weights and pay ratios. The dependent variable is the *quarterly excess weight (EW)* of institutional investor j in stock i for quarter t. Specifically, $EW_{i,j,t+1}$ is calculated as the difference between the weight of stock i in investor j's portfolio and the market weight of stock i in quarter $t+1$. The key independent variable $Ln(PR)_{i,t}$ is the pay ratio disclosed in quarter t. In columns (5)-(8), to assess how inequality aversion influences institutional portfolio weights, we interact $Ln(PR)_{i,t}$ with the inequality aversion at the institutional investor level $IA_{j,t}$. In columns (9)-(12), we include an interaction between $Ln(PR)_{i,t}$ and the distance of institutional investors from the firm to capture the effect of local institutional ownership. *Nearby Firm* is a dummy variable equal to one if the institutional investor holding the firm is located within 250 miles of the firm's headquarters, and zero otherwise. We consider controls for both firms and institutional investors. Firm controls include the logarithm market capitalization, book-to-market ratio, leverage, dividend yield, and loss indicator. Institutional investor controls are their portfolio size and the number of firms they hold during a quarter-year period. The estimation period is from January 2018 to December 2023. Standard errors are clustered at the institutional investors, and t-statistics are reported in parentheses. Significance levels are denoted as follows: *p<0.1; **p<0.05; ***p<0.01.

	$EW_{i,j,t}$	$EW_{i,j,t+1}$	$EW_{i,j,t+2}$	$EW_{i,j,t+3}$	$EW_{i,j,t}$	$EW_{i,j,t+1}$	$EW_{i,j,t+2}$	$EW_{i,j,t+3}$	$EW_{i,j,t}$	$EW_{i,j,t+1}$	$EW_{i,j,t+2}$	$EW_{i,j,t+3}$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
$Ln(PR)_{i,t}$	0.004***	0.006***	0.007***	0.007***	0.004***	0.002*	0.004***	0.004***	0.005***	0.003*	0.004***	0.005***
	(9.22)	(11.73)	(13.18)	(12.06)	(3.41)	(1.79)	(2.96)	(2.98)	(3.53)	(1.91)	(2.72)	(3.27)
$IA_{j,t}$					0.004	-0.007	-0.007	-0.002	0.004	-0.009	-0.013**	-0.003
					(0.87)	(-1.47)	(-1.38)	(-0.37)	(0.80)	(-1.62)	(-2.16)	(-0.53)
$Ln(PR)_{i,t} \times IA_{j,t}$					0.001	0.004***	0.004***	0.003**	-0.000	0.004***	0.004***	0.002
					(0.71)	(3.84)	(3.21)	(2.51)	(-0.29)	(2.73)	(2.60)	(1.18)
$NearbyFirm$									-0.019***	-0.021***	-0.018**	-0.021***
									(-2.90)	(-3.08)	(-2.50)	(-2.74)
$Ln(PR)_{i,t} \times NearbyFirm$									0.011***	0.012***	0.011***	0.012***
									(7.94)	(7.98)	(7.23)	(7.25)
Ln(Market Cap)	-0.020***	-0.022***	-0.023***	-0.023***	-0.021***	-0.024***	-0.024***	-0.025***	-0.022***	-0.025***	-0.026***	-0.026***
	(-17.30)	(-18.27)	(-18.05)	(-17.67)	(-17.73)	(-18.76)	(-18.38)	(-18.04)	(-17.54)	(-18.64)	(-18.50)	(-17.65)
BM ratio	0.000	-0.001	0.000	-0.000	0.001	-0.000	0.000	-0.000	0.002***	0.001**	0.001*	0.001
	(1.04)	(-1.23)	(0.44)	(-0.64)	(1.46)	(-0.75)	(0.84)	(-0.16)	(3.17)	(2.35)	(1.73)	(1.26)
Leverage	0.016***	0.013***	0.015***	0.010***	0.016***	0.012***	0.015***	0.009***	0.020***	0.018***	0.021***	0.014***
	(6.14)	(4.77)	(5.23)	(3.43)	(5.85)	(4.28)	(4.92)	(3.04)	(6.50)	(5.68)	(6.40)	(4.02)
Dividend Yield	-0.969***	-0.721***	-0.659***	-0.575***	-1.027***	-0.806***	-0.730***	-0.674***	-0.529***	-0.198	-0.278**	-0.081
	(-8.67)	(-6.29)	(-5.60)	(-4.45)	(-8.89)	(-6.81)	(-6.04)	(-5.10)	(-4.32)	(-1.56)	(-2.16)	(-0.56)
Loss	-0.015***	-0.012***	-0.012***	-0.009***	-0.016***	-0.014***	-0.014***	-0.011***	-0.014***	-0.011***	-0.012***	-0.008***
	(-9.09)	(-7.54)	(-7.23)	(-5.36)	(-9.26)	(-8.26)	(-8.08)	(-6.37)	(-7.49)	(-5.93)	(-6.19)	(-4.06)
Constant	0.324***	0.338***	0.335***	0.341***	0.328***	0.355***	0.351***	0.353***	0.331***	0.360***	0.364***	0.355***
	(29.25)	(29.03)	(27.72)	(26.97)	(26.13)	(26.67)	(25.21)	(24.14)	(24.39)	(24.98)	(23.96)	(22.49)
Investors × Quarter-Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	3823200	3572865	3338585	2928653	3670353	3434690	3214272	2827305	2852036	2671576	2500922	2211910
Adjusted R^2	0.479	0.478	0.474	0.465	0.473	0.471	0.468	0.459	0.471	0.470	0.466	0.458

Table 11. Pay Ratio, Changes in Institutional Shareholdings, and Long-Run Returns

This table examines whether the relationship between pay ratios and long-run returns varying with different level of changes in insitutional shareholdings (Δ *Share*). The dependent variable is the monthly excess return $R_{i,t}$ - Rf_t. The main independent variables are the natural logarithm of the pay ratio disclosed in month t and quarter q, $Ln\ (PR)_{i,t,q}$ and two dummy variables capturing firms with high pay-ratio firms, respectively *High PR (Quintile)* and *High PR (Tercile)*. *High PR (Quintile)* is a dummy equals one if a firm's *Pay Ratio* in month *t-1* lies in the top 20% of the sample distribution and zero otherwise. *High PR (Tercile)* is a dummy equals one if a firm's *Pay Ratio* in month *t-1* lies in the top 30% of the sample distribution and zero otherwise. $\Delta\ Share_{i,q}$ represents the weighted average change in institutional investor shareholdings, lagged by one quarter, in relation to excess returns. We include Fama and French three-factor betas measured using the past 60 months of returns. Other controls include log market capitalization, book-to-market ratio and dividend yield as well as cumulative returns over $t-3$ to $t-2$, $t-6$ to $t-4$, and $t-12$ to $t-7$, trading volume, and stock price in the previous two months. We include *Industry* $\times$ *Year* fixed effects using Fama-French 48 industries in our panel regressions. The estimation period is from January 2018 to December 2023. Standard errors are clustered at the firm level and t-values are reported in parentheses. Significance levels are denoted as follows:*p<0.1; **p<0.05; ***p<0.01.

	Dependent variable: $Excess\ Return_{i,t+1}$					
	(1)	(2)	(3)	(4)	(5)	(6)
$High\ PR\ (Quintile)_{i,t,q}$	0.933***			0.799***		
	(6.38)			(4.91)		
$High\ PR\ (Quintile)_{i,t,q} \times \Delta\ Share_{i,q}$	0.072***			0.060***		
	(4.83)			(3.90)		
$High\ PR\ (Tercile)_{i,t,q}$		1.134***			1.027***	
		(8.51)			(6.93)	
$High\ PR\ (Tercile)_{i,t,q} \times \Delta\ Share_{i,q}$		0.084***			0.075***	
		(6.28)			(5.45)	
$Ln\ (PR)_{i,t,q}$			0.435***			0.349***
			(6.80)			(4.84)
$Ln\ (PR)_{i,t,q} \times \Delta\ Share_{i,q}$			0.027***			0.022***
			(4.41)			(3.36)
$\Delta\ Share_{i,q}$	-0.134***	-0.148***	-0.240***	-0.153***	-0.167***	-0.238***
	(-16.58)	(-16.39)	(-8.13)	(-18.57)	(-18.00)	(-7.66)
Beta Mkt-Rf	0.373***	0.364***	0.353***	-0.067	-0.073	-0.077
	(4.82)	(4.74)	(4.56)	(-0.70)	(-0.76)	(-0.81)
Beta SMB	-0.100*	-0.097*	-0.102*	-0.256***	-0.254***	-0.257***
	(-1.77)	(-1.77)	(-1.85)	(-3.82)	(-3.88)	(-3.90)
Beta HML	0.240***	0.225***	0.198***	0.443***	0.427***	0.405***
	(3.66)	(3.44)	(2.99)	(5.39)	(5.20)	(4.86)
Constant	4.828***	5.074***	3.812***	5.291***	5.493***	4.408***
	(12.41)	(12.54)	(8.90)	(12.20)	(12.10)	(8.98)
Industry $\times$ Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Firm-level controls	Yes	Yes	Yes	Yes	Yes	Yes
Stock-level controls	No	No	No	Yes	Yes	Yes
Observations	123407	123407	123407	106002	106002	106002
Adjusted R^2	0.030	0.030	0.030	0.029	0.029	0.029

Table 12. Trading Strategy

This table presents the performance of our long-short portfolios. We begin by sorting stocks into terciles based on *Inequality Aversion: Investors* and *Institutional Ownership*. Firms in the top 30% of the distribution are classified as *High IA & High IO*, while those in the bottom 30% are categorized as *Low IA & Low IO*. Next, we further sort stocks into quintiles based on their pay ratios disclosed in month t. The *High PR* portfolio consists of a value-weighted portfolio of stocks with pay ratios in the top 20% of the distribution, whereas the *Low PR* portfolio comprises a value-weighted portfolio of stocks with pay ratios in the bottom 20%. Each month, conditional on a firm's *IA & IO*, we take a long position in the *High PR* firms and a short position in the *Low PR* firms, which forms our *High-Low* portfolio. Additionally, we form a *High-High* portfolio by taking a long position in *High PR* firms within the *High IA & High IO* group and a short position in *High PR* firms within the *Low IA & Low IO* group. The independent variables include various factors: *Mkt-Rf* represents the excess market return, *SMB* and *HML* capture the size and value factors based on Fama and French (1993), *UMD* represents the momentum factor from Carhart (1997), and *RMW* and *CMA* represent the profitability and investment factors from Fama and French (2015). T-statistics are calculated using Newey and West (1987) adjusted standard errors and are presented in parentheses. Significance levels are denoted as follows: *p<0.1; **p<0.05; ***p<0.01.

Panel A: Market Factor	*High IA & High IO*			*Low IA & Low IO*			
	High PR	*Low PR*	***High-Low***	*High PR*	*Low PR*	***High-Low***	***High-High***
	(1)	(2)	(1) - (2)	(3)	(4)	(3) - (4)	(1) - (3)
Alpha	0.385**	-0.664	1.049*	0.060	0.067	-0.007	0.326
	(2.02)	(-1.26)	(1.74)	(0.25)	(0.11)	(-0.01)	(1.21)
Mkt-Rf	0.989***	0.924***	0.065	0.817***	1.198***	-0.381	0.172***
	(21.02)	(5.48)	(0.32)	(20.07)	(4.44)	(-1.30)	(3.26)
Observations	69	69	69	69	69	69	69
Adjusted R^2	0.833	0.486	-0.011	0.774	0.299	0.020	0.082
Panel B: Three Factors	*High IA & High IO*			*Low IA & Low IO*			
	High PR	*Low PR*	***High-Low***	*High PR*	*Low PR*	***High-Low***	***High-High***
	(1)	(2)	(1) - (2)	(3)	(4)	(3) - (4)	(1) - (3)
Alpha	0.475**	-0.462	0.937**	0.006	0.111	-0.105	0.469**
	(2.36)	(-1.19)	(2.20)	(0.04)	(0.12)	(-0.10)	(2.12)
Mkt-Rf	0.946***	0.754***	0.191	0.878***	1.102***	-0.224	0.067
	(23.82)	(5.24)	(1.12)	(19.89)	(4.67)	(-0.86)	(1.01)
SMB	0.165	0.845***	-0.680***	-0.331***	0.569	-0.899	0.496***
	(1.58)	(5.26)	(-4.42)	(-3.76)	(0.93)	(-1.39)	(7.95)
HML	0.196***	-0.462***	0.658***	0.329***	-0.830**	1.159***	-0.133***
	(5.52)	(-6.08)	(8.45)	(5.56)	(-2.22)	(2.85)	(-3.04)
Observations	69	69	69	69	69	69	69
Adjusted R^2	0.864	0.613	0.220	0.857	0.373	0.202	0.262
Panel C: Four Factors	*High IA & High IO*			*Low IA & Low IO*			
	High PR	*Low PR*	***High-Low***	*High PR*	*Low PR*	***High-Low***	***High-High***
	(1)	(2)	(1) - (2)	(3)	(4)	(3) - (4)	(1) - (3)
Alpha	0.477**	-0.455	0.932**	0.008	0.177	-0.169	0.469**
	(2.33)	(-1.18)	(2.15)	(0.05)	(0.20)	(-0.17)	(2.09)
Mkt-Rf	0.942***	0.741***	0.201	0.875***	0.977***	-0.102	0.067
	(17.89)	(4.24)	(0.94)	(18.72)	(3.48)	(-0.33)	(0.85)
SMB	0.161	0.829***	-0.668***	-0.335***	0.405	-0.740	0.496***
	(1.55)	(5.09)	(-4.27)	(-3.68)	(0.87)	(-1.47)	(8.14)
HML	0.194***	-0.469***	0.663***	0.327***	-0.895**	1.222***	-0.134***
	(4.99)	(-5.96)	(8.88)	(5.27)	(-2.52)	(3.09)	(-3.01)
Momentum	-0.012	-0.045	0.033	-0.011	-0.437	0.425	-0.001
	(-0.19)	(-0.32)	(0.19)	(-0.23)	(-1.02)	(0.91)	(-0.02)
Observations	69	69	69	69	69	69	69
Adjusted R^2	0.862	0.607	0.208	0.855	0.383	0.209	0.251

Table 12: Trading Strategy (continued)

Panel D: Five Factors	*High IA & High IO*			*Low IA & Low IO*			
	High PR	*Low PR*	***High-Low***	*High PR*	*Low PR*	***High-Low***	***High-High***
	(1)	(2)	(1) - (2)	(3)	(4)	(3) - (4)	(1) - (3)
Alpha	0.464***	-0.293	0.757**	-0.173	0.965	-1.138	0.636***
	(2.72)	(-0.89)	(2.02)	(-0.97)	(0.98)	(-1.06)	(3.36)
Mkt-Rf	0.985***	0.705***	0.280	0.845***	1.124***	-0.279	0.140**
	(24.03)	(4.10)	(1.45)	(19.91)	(5.56)	(-1.26)	(2.13)
SMB	0.129	0.741***	-0.611***	-0.116	-0.290	0.173	0.245*
	(1.06)	(4.16)	(-3.65)	(-0.94)	(-0.61)	(0.35)	(1.91)
HML	0.130**	-0.207	0.337*	0.175**	0.090	0.086	-0.046
	(2.08)	(-1.05)	(1.87)	(2.25)	(0.32)	(0.26)	(-0.60)
RMW	-0.141	-0.020	-0.121	0.363***	-1.182***	1.545***	-0.504***
	(-1.38)	(-0.06)	(-0.30)	(3.07)	(-3.66)	(3.87)	(-3.17)
CMA	0.203*	-0.543	0.746*	0.176	-1.481*	1.657*	0.027
	(1.74)	(-1.31)	(1.93)	(1.53)	(-1.70)	(1.70)	(0.22)
Observations	69	69	69	69	69	69	69
Adjusted R^2	0.868	0.624	0.263	0.878	0.457	0.340	0.356

Appendices

Table A1. Variable Definitions

Variables	Definition	Source
Firm Variables		
CAR [−1, +3]	Cumulative abnormal return between event days −1 and +3, with an abnormal return representing the difference between a firm's daily return and the value-weighted CRSP market return, with both returns excluding dividends. Day 0 in event time is defined as the earliest filing date of firms' proxy statements in 2018.	CRSP
ROA	The sum of net income (NI), depreciation and amortization(DP), income taxes (TXT), and total interest and related expenses (XINT) divided by total assets last year (AT).	COMPUSTAT
Profit Margin	Net income (NI) divided by the amount of sales (SALE).	COMPUSTAT
Ln(PR)	Natural logarithm of the *Pay Ratio* within each firm, calculated as the ratio of CEO compensation to median worker compensation.	Equilar
High PR (Quintile)	A dummy equals 1 if a firm's *Pay Ratio* lies in the top 20% of the sample distribution and zero otherwise.	Equilar
High PR (Tercile)	A dummy equals 1 if a firm's *Pay Ratio* lies in the top 30% of the sample distribution and zero otherwise.	Equilar
Ln(Market Cap)	Natural logarithm of the market capitalization of a firm, calculated as the multiplication of price (RRCC) and share outstanding (CSHO) end of fiscal year.	COMPUSTAT
BM ratio	Total assets (AT) divided by the sum of market equity (PRCC × CSHO), short-term debt (DLC), and long-term debt (DLTT).	COMPUSTAT
Size	Natural logarithm of total assets (AT).	COMPUSTAT
Leverage	The sum of short-term debt (DLC) and long-term debt (DLTT) divided by total assets (AT).	COMPUSTAT
Dividend Yield	The ratio between dividend (DVP) and stockholders' equity (SEQ).	COMPUSTAT
Loss Indicator	Binary variable equal to one if the operating income after depreciation (OIADP) is negative, and zero otherwise.	COMPUSTAT

Table A1: Variable Definitions (continued)

Variables	Definition	Source
Firm-level Time-series variables		
Beta-MktRf	The market beta of stock in the previous month, estimated with monthly data and a rolling window of length 60 months.	CRSP
Beta-SMB	The size beta of stock in the previous month, estimated with monthly data and a rolling window of length 60 months.	CRSP
Beta-HML	The value beta of stock in the previous month, estimated with monthly data and a rolling window of length 60 months.	CRSP
Institutional Investor and Analyst variables		
No. of Analysts	The number of analysts follows a firm during a year.	I/B/E/S
Forecast Horizon	The number of months between the forecast date and the actual value announcement.	I/B/E/S
No. of Firms	The number of companies an analyst follows during a year.	I/B/E/S
No. of Industries	The number of Fama-French 48 industries followed by an analyst.	I/B/E/S
Firm Experience	The number of years an analyst has covered a specific firm.	I/B/E/S
Nearby Firm	We first obtain data on the zip codes for all firms. The zip codes are used to identify the latitude and longitude of each firm and analyst's headquarters. Distance between a firm and an analyst's headquarter is estimated using the following formula: $D(\text{firm}, \text{analyst}) = r \times \arccos\Big[\sin(\text{lat}_{\text{firm}}) \times \sin(\text{lat}_{\text{analyst}}) + \cos(\text{lat}_{\text{firm}}) \times \cos(\text{lat}_{\text{analyst}}) \times \cos(\text{lon}_{\text{analyst}} - \text{lon}_{\text{firm}})\Big],$ where lat_{firm} and lat_{inst} are the latitudes of the firm and the analyst locations, respectively, and lon_{firm} and $\text{lon}_{\text{analyst}}$ are the longitudes of the firm and the analyst locations, respectively. r is the radius of the Earth in miles (i.e., $r = 3963$), and the latitude and longitude values for firms and institutions have been converted into radians by means of a division by $180/\pi$. *Nearby Firm* is a dummy variable equal to one if the institutional investor holding the firm is located within 250 miles of the firm's headquarters, and zero otherwise.	Thomson Reuters

Table A2. Pay Ratio, Operating Performance and Inequality Aversion

This table reports the relationship between pay ratios and operating performance. We use ROA, the standard deviation of ROA, and profit margin as proxies for firms' operating performance. To assess the impact of pay ratios, we regress these performance measures on the one-year lagged main independent variable, *Ln(PR)*. In this analysis, we introduce interaction terms with two measures of inequality aversion: one at the firm's headquarters level, denoted as *High IA: HQ*, and the other at the investors' location level, denoted as *High IA: Investors*. *High IA: HQ* is a binary variable equal to one if the inequality aversion in the state where the firm is located falls within the top 30% of the sample distribution in year t, and zero otherwise. Similarly, *High IA: Investors* is equal to one if the inequality aversion in the investors' location ranks in the top 30% of the sample distribution in year t, and zero otherwise. Firm-level controls include size, book-to-market ratio, leverage, dividend yield and loss indicator. We include *Industry* × *Year* fixed effects. Standard errors are clustered at the firm level, and t-statistics are reported in parentheses. Significance levels are denoted as follows:*p<0.1; **p<0.05; ***p<0.01.

	ROA	STD(ROA)	Profit Margin	ROA	STD(ROA)	Profit Margin
	(1)	(2)	(3)	(4)	(5)	(6)
Ln(PR)	0.0007	-0.0043***	0.0275*	-0.0014	-0.0019*	0.0137
	(0.28)	(-2.78)	(1.94)	(-0.60)	(-1.70)	(1.35)
High IA: HQ	-0.0210	-0.0025	0.0003			
	(-1.48)	(-0.40)	(0.00)			
Ln(PR) × *High IA: HQ*	0.0039	0.0004	0.0025			
	(1.42)	(0.30)	(0.19)			
High IA: Investors				-0.0368**	0.0123**	-0.1439**
				(-2.26)	(2.57)	(-2.39)
Ln(PR) × *High IA: Investors*				0.0068**	-0.0023**	0.0254**
				(2.23)	(-2.43)	(2.23)
Constant	0.0617*	-0.0186	0.1905	0.0578*	-0.0107	0.2263
	(1.94)	(-1.07)	(1.44)	(1.68)	(-0.72)	(1.37)
Firm Controls	Yes	Yes	Yes	Yes	Yes	Yes
Industry × Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	6411	6013	8136	5788	5423	7408
Adjusted R^2	0.631	0.043	0.609	0.636	0.049	0.612

Table A3. Pay Ratio and Managerial Ability

This table examines the relationship between pay ratio and managerial ability. We use the *Managerial Ability (MA)* measure developed by Demerjian et al. (2012) and regress the dependent variable, $Ln(PR)_t$, on one-year, two-year, three-year, four-year lagged values of MA and the average values across four years $\overline{MA}_{t-1,t-4}$. $Ln(PR)_t$ is the logarithm of the pay ratio disclosed in fiscal year t. Firm-level control variables include firm size (proxied by the number of employees), the book-to-market ratio, leverage, dividend yield, and a loss indicator, all lagged by one year. We also include the lagged values of CEO pay and median worker pay, both expressed in logarithmic form. Standard errors are clustered at the firm level, and t-statistics are reported in parentheses. The sample period spans from 2018 to 2022, as the managerial ability data is only available through 2022. Significance levels are denoted as follows:*p<0.1; **p<0.05; ***p<0.01.

	Dependent Variables: $Ln(PR)_t$									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
MA_{t-1}	0.138**	0.153**								
	(2.33)	(2.33)								
MA_{t-2}			0.105*	0.127**						
			(1.88)	(2.11)						
MA_{t-3}					0.208***	0.204***				
					(3.15)	(2.83)				
MA_{t-4}							0.233***	0.259***		
							(2.99)	(3.02)		
$\overline{MA}_{t-1,t-4}$									0.243**	0.231**
									(2.40)	(2.01)
Size	0.003***	0.003***	0.003***	0.003***	0.002***	0.003***	0.002***	0.002***	0.002***	0.002***
	(7.40)	(7.07)	(8.69)	(8.24)	(7.83)	(7.70)	(5.54)	(5.15)	(3.62)	(3.48)
BM ratio	-0.090***	-0.077***	-0.089***	-0.085***	-0.095***	-0.091***	-0.096***	-0.096***	-0.104***	-0.079**
	(-4.88)	(-3.70)	(-5.02)	(-4.40)	(-4.75)	(-4.29)	(-3.89)	(-3.71)	(-3.55)	(-2.50)
Dividend Yield	3.350	3.282	6.138**	6.722**	7.583**	7.957**	7.486*	7.622	6.005	5.041
	(1.33)	(1.24)	(2.47)	(2.53)	(2.37)	(2.28)	(1.66)	(1.56)	(1.08)	(0.86)
Loss Indicator	-0.127***	-0.141***	-0.133***	-0.135***	-0.139***	-0.133***	-0.156***	-0.145***	-0.111**	-0.117**
	(-4.11)	(-4.08)	(-4.36)	(-3.90)	(-4.77)	(-4.16)	(-4.49)	(-3.94)	(-2.57)	(-2.53)
Lagged Ln(CEO Pay)	0.616***	0.603***	0.632***	0.621***	0.647***	0.638***	0.602***	0.593***	0.635***	0.632***
	(17.98)	(16.52)	(21.89)	(20.01)	(22.45)	(20.93)	(12.06)	(10.95)	(14.72)	(14.10)
Lagged Ln(Median Pay)	-0.870***	-0.869***	-0.870***	-0.868***	-0.887***	-0.882***	-0.873***	-0.873***	-0.867***	-0.873***
	(-57.35)	(-49.43)	(-60.86)	(-51.51)	(-59.26)	(-48.17)	(-45.27)	(-38.68)	(-48.61)	(-38.86)
Constant	4.660***	4.843***	4.410***	4.560***	4.399***	4.465***	4.964***	5.103***	4.394***	4.473***
	(9.66)	(8.96)	(10.62)	(9.87)	(9.94)	(9.01)	(7.02)	(6.43)	(6.62)	(6.20)
Industry × Year FE	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Observations	6114	6099	5747	5730	4381	4367	3136	3127	2109	2103
Adjusted R^2	0.694	0.696	0.697	0.700	0.708	0.712	0.703	0.708	0.699	0.703

Table A4. Pay Ratio, Long Run Returns and Inequality Aversion At Operation Level

This table examines whether the relationship between pay ratios and long-run returns varying with different levels of inequality aversion at operation level. The dependent variable is the monthly excess return $R_{i,t}$ - Rf_t. The main independent variables are measures of pay inequality using *Ln(PR)* and two dummy variables capturing firms with high pay ratios, respectively *High PR (Quintile)* and *High PR (Tercile)*. *High PR (Quintile)* is equal to one if a firm's *Pay Ratio* in month t lies in the top 20% of the sample distribution and zero otherwise. *High PR (Tercile)* is equal to one if a firm's *Pay Ratio* in month t lies in the top 30% of the sample distribution and zero otherwise. In this analysis, we introduce interaction terms with a measure of inequality aversion at operation level, denoted as *High IA: Operation*. *High IA: Operation* is a binary variable equal to one if the inequality aversion at the operation level where the firm is located falls within the top 30% of the sample distribution in month t, and zero otherwise. We include Fama and French three-factor betas measured using the past 60 months of returns. Other controls include log market capitalization, book-to-market ratio and dividend yield as well as cumulative returns over $t-3$ to $t-2$, $t-6$ to $t-4$, and $t-12$ to $t-7$, trading volume, and stock price in the previous two months. We include *Industry* × *Year* fixed effects. The estimation period is from January 2018 to December 2023. Standard errors are clustered at the firm level, and t-values are reported in parentheses. Significance levels are denoted as follows:*p<0.1; **p<0.05; ***p<0.01.

	(1)	(2)	(3)	(4)	(5)	(6)
High PR (Quintile)	0.369***			0.291**		
	(3.37)			(2.30)		
High PR (Quintile) × High IA: Operation	0.371**			0.349*		
	(2.47)			(1.95)		
High PR (Tercile)		0.453***			0.330***	
		(4.71)			(2.95)	
High PR (Tercile) × High IA: Operation		0.343**			0.351**	
		(2.54)			(2.18)	
Ln(PR)			0.262***			0.132**
			(4.94)			(2.15)
Ln(PR) × High IA: Operation			0.101*			0.157**
			(1.75)			(2.22)
High IA: Operation	-0.000	-0.021	-0.326	-0.082	-0.115	-0.682**
	(-0.00)	(-0.25)	(-1.22)	(-0.88)	(-1.12)	(-2.03)
Constant	7.415***	7.795***	7.252***	7.891***	8.181***	7.845***
	(19.70)	(19.54)	(19.77)	(16.24)	(16.07)	(16.47)
Firm-level controls	Yes	Yes	Yes	Yes	Yes	Yes
Stock-level controls	No	No	No	Yes	Yes	Yes
Industry × Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	128455	128455	128455	104792	104792	104792
Adjusted R^2	0.021	0.021	0.021	0.025	0.025	0.025

Table A5. Pay Ratio and Long Run Returns

This table examines whether the relationship between pay ratios and long-run returns. The dependent variable is the monthly excess return $R_{i,t}$ - Rf_t. The main independent variables are measures of pay inequality using *Ln(PR)* and two dummy variables capturing firms with high pay ratios, respectively *High PR (Quintile)* and *High PR (Tercile)*. *High PR (Quintile)* is equal to one if a firm's *Pay Ratio* in month t lies in the top 20% of the sample distribution and zero otherwise. *High PR (Tercile)* is equal to one if a firm's *Pay Ratio* in month t lies in the top 30% of the sample distribution and zero otherwise. In this table, we include a broader set of control variables, including *Tobin's Q*, the book-to-market ratio (*BM Ratio*), and idiosyncratic volatility (IVOL), among others detailed in Table 3. We include *Industry* $\times$ *Year* fixed effects. The estimation period is from January 2018 to December 2023. Standard errors are clustered at the firm level, and t-values are reported in parentheses. Significance levels are denoted as follows:*p<0.1; **p<0.05; ***p<0.01.

	(1)	(2)	(3)
High PR (Quintile)	0.301***		
	(3.31)		
High PR (Tercile)		0.397***	
		(4.68)	
Ln(PR)			0.229***
			(5.47)
Beta Mkt-Rf	0.275***	0.272***	0.256***
	(2.80)	(2.81)	(2.69)
Beta SMB	0.026	0.029	0.017
	(0.42)	(0.47)	(0.29)
Beta HML	0.806***	0.795***	0.765***
	(9.49)	(9.38)	(9.04)
IVOL	-2.784***	-2.696***	-2.454***
	(-3.09)	(-3.07)	(-2.90)
Tobin's Q	0.576***	0.581***	0.593***
	(17.49)	(17.55)	(17.94)
BM ratio	-0.246***	-0.249***	-0.245***
	(-6.91)	(-6.98)	(-6.90)
Dividend Yield	1.516	1.443	2.338
	(0.18)	(0.17)	(0.28)
CRet(-2,-3)	0.380***	0.381***	0.382***
	(12.74)	(12.75)	(12.79)
CRet(-4,-6)	0.007***	0.007***	0.007***
	(4.23)	(4.24)	(4.26)
CRet(-7,-12)	0.000	0.000	0.000
	(0.71)	(0.70)	(0.72)
Price	-0.865***	-0.889***	-0.927***
	(-16.53)	(-16.82)	(-17.18)
Volume	-0.009	-0.028	-0.054**
	(-0.35)	(-1.13)	(-2.05)
Constant	3.122***	3.362***	2.899***
	(8.06)	(8.58)	(7.84)
Industry $\times$ Year FE	Yes	Yes	Yes
Observations	105823	105823	105823
Adjusted R^2	0.028	0.028	0.028

Table A6. Pay Ratio, Managerial Talent and Operating Performance

This table reports the relationship between pay ratios and operating performance. We use Return on Assets - ROA, Standard Deviation of ROA and Profit Margin as measures of operating performance and regress our dependent variables on one-year lagged *Ln(PR)*. Firm-level controls include the natural logarithm of market capitalization, book-to-market ratio, leverage, dividend yield and loss indicator. Standard errors are clustered at the firm level, and t-statistics are reported in parentheses. Significance levels are denoted as follows:*p<0.1; **p<0.05; ***p<0.01.

	ROA		STD(ROA)		Profit Margin	
	(1)	(2)	(3)	(4)	(5)	(6)
Ln(PR)	-0.0004		-0.0012*		-0.0063	
	(-0.25)		(-1.70)		(-1.15)	
Ln(PR) × *High MA*	0.0052**		-0.0011		0.0274***	
	(2.13)		(-1.09)		(2.87)	
Ln(CEO Pay)		-0.0050**		0.0011*		-0.0164**
		(-2.36)		(1.82)		(-2.13)
Ln(CEO Pay) × *High MA*		0.0062**		-0.0016**		0.0197**
		(2.39)		(-1.96)		(2.09)
Ln(Median Worker Pay)		-0.0058**		0.0040***		-0.0081
		(-2.40)		(3.35)		(-1.05)
Ln(Median Worker Pay) × *High MA*		-0.0039		0.0006		-0.0366**
		(-0.98)		(0.32)		(-2.23)
High MA	-0.0204	-0.0502	0.0082	0.0211	-0.1610***	0.0654
	(-1.57)	(-0.89)	(1.53)	(1.04)	(-3.00)	(0.30)
Ln(Market Cap)	-0.0000	0.0019	-0.0012***	-0.0022***	0.0089***	0.0152***
	(-0.02)	(1.63)	(-3.46)	(-4.95)	(2.79)	(3.49)
BM ratio	-0.0297***	-0.0291***	-0.0020	-0.0025	-0.0120	-0.0088
	(-7.76)	(-7.61)	(-1.36)	(-1.63)	(-1.38)	(-0.99)
Leverage	0.0269***	0.0284***	0.0122**	0.0115**	0.0567*	0.0595*
	(3.40)	(3.58)	(2.14)	(2.07)	(1.88)	(1.96)
Loss	-0.0383***	-0.0362***	0.0068***	0.0053***	-0.0329	-0.0262
	(-6.30)	(-6.03)	(3.78)	(3.06)	(-1.63)	(-1.28)
Dividend Yield	1.5518***	1.5336***	-0.0823	-0.0678	3.4604***	3.4284***
	(2.91)	(2.90)	(-0.49)	(-0.42)	(3.42)	(3.42)
Dividend Yield Indicator	-0.0217***	-0.0218***	-0.0001	-0.0002	-0.0379*	-0.0377*
	(-2.71)	(-2.74)	(-0.02)	(-0.05)	(-1.79)	(-1.77)
Lag ROA	0.6227***	0.6167***				
	(28.49)	(28.34)				
Lag STD(ROA)			0.1663***	0.1609***		
			(2.79)	(2.73)		
Lag Profit Margin					0.7153***	0.7110***
					(14.87)	(14.65)
Constant	0.0617***	0.1840***	0.0256***	-0.0311**	-0.0259	0.2322*
	(5.63)	(4.81)	(6.08)	(-2.18)	(-1.10)	(1.81)
Industry × Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	5721	5716	5445	5441	6092	6087
Adjusted R^2	0.594	0.595	0.069	0.072	0.584	0.585

Table A7. Pay Ratio, Managerial Talent and Long Run Returns

This table reports the relationship between pay ratios and return performance. Firm-level controls include the natural logarithm of market capitalization, book-to-market ratio, leverage, dividend yield and loss indicator. Standard errors are clustered at the firm level, and t-statistics are reported in parentheses. Significance levels are denoted as follows:*p<0.1; **p<0.05; ***p<0.01.

	Dependent Variable: Monthly Excess Return			
	(1)	(2)	(3)	(4)
High PR (Quintile)	0.447***			
	(2.94)			
High PR (Quintile) × *High MA*	0.496**			
	(2.18)			
High PR (Tercile)		0.521***		
		(3.72)		
High PR (Tercile) × *High MA*		0.541**		
		(2.39)		
Ln(PR)			0.285***	
			(4.20)	
Ln(PR) × *High MA*			0.195*	
			(1.86)	
Ln(CEO Pay)				0.429***
				(4.33)
Ln(CEO Pay) × *High MA*				0.382***
				(2.65)
Ln(Median Worker Pay)				-0.148
				(-1.48)
Ln(Median Worker Pay) × *High MA*				0.013
				(0.08)
High MA	0.616***	0.537***	-0.097	-5.366*
	(3.94)	(2.94)	(-0.18)	(-1.95)
Beta Mkt-Rf	-0.113	-0.102	-0.102	-0.119
	(-0.84)	(-0.76)	(-0.76)	(-0.88)
Beta SMB	-0.346***	-0.336***	-0.344***	-0.348***
	(-4.18)	(-4.09)	(-4.17)	(-4.08)
Beta HML	0.831***	0.817***	0.772***	0.786***
	(6.76)	(6.65)	(6.27)	(6.32)
Firm-level controls	Yes	Yes	Yes	Yes
Stock-level controls	Yes	Yes	Yes	Yes
Industry × Year FE	Yes	Yes	Yes	Yes
Observations	55005	55005	55005	54981
Adjusted R^2	0.036	0.036	0.036	0.036

Table A8. Equity Market Reaction to Pay Ratios

This table presents results from an event study analysing the relationship between cumulative abnormal returns (CARS) and the disclosure of pay ratios in proxy statement filings. The main independent variable is *High PR (Quintile)*, which equals one if a firm's disclosed *Pay Ratio* falls within the top 20% of the sample distribution, and zero otherwise. Control variables include the natural logarithm of total market capitalisation and the book-to-market ratio, both measured at the beginning of the fiscal year. We estimate Market-Adjusted return models across a five-day event window. Standard errors are double-clustered at the firm and announcement-date levels, and t-values are reported in parentheses. Statistical significance is indicated as follows: *p<0.1; **p<0.05; ***p<0.01.

	Dependent Variable: CAR[-1,3]			
	(1)	(2)	(3)	(4)
High PR (Quintile)	-0.0051**	-0.0068**	-0.0069***	-0.0064**
	(-2.04)	(-2.55)	(-2.73)	(-2.57)
Second Disclosure	-0.0020			-0.0022
	(-1.12)			(-1.23)
Second Disclosure × *High PR (Quintile)*	0.0061*			0.0062*
	(1.76)			(1.78)
Third Disclosure		0.0004		0.0005
		(0.10)		(0.14)
Third Disclosure × *High PR (Quintile)*		0.0109**		0.0108**
		(1.97)		(1.97)
Fourth Disclosure			-0.0036	-0.0033
			(-1.55)	(-1.45)
Fourth Disclosure × *High PR (Quintile)*			0.0033	0.0031
			(1.02)	(0.97)
First Disclosure	0.0000	0.0000	0.0000	0.0000
	(.)	(.)	(.)	(.)
Ln(Market Cap)	0.0000	0.0012	0.0013**	0.0009
	(0.06)	(1.44)	(2.33)	(1.57)
BM Ratio	0.0000	-0.0001	0.0001	-0.0003
	(0.06)	(-0.09)	(0.12)	(-0.45)
Constant	0.0015	-0.0072	-0.0083*	-0.0045
	(0.33)	(-1.03)	(-1.76)	(-0.94)
Observations	3971	3864	3734	7467
Adjusted R^2	0.000	0.001	0.003	0.002

Table A9. Pay Ratio and Portfolio Rebalancing (Quarterly)

This table analyzes the portfolio rebalancing behavior the four quarters following executive pay ratio disclosures. The main independent variable, $Ln(PR)_{i,t}$, is the natural logarithm of the pay ratio disclosed in quarter t. The dependent variable, $\Delta StockWeight_{ij,t}$, captures the change in the weight of stock j in institution i's portfolio between quarter t and $t-1$, where both weights are computed using constant stock prices fixed at the end of the fiscal year preceding the firm's pay ratio disclosure. Similarly, $\Delta StockWeight_{ij,t+1}$ captures the change between quarters $t+1$ and t, and so on for subsequent quarters. To examine whether rebalancing behavior differs between the first disclosure as documented in Pan et al. (2022) and subsequent disclosures, we include interaction terms with a *First Disclosure* dummy, which equals one if the pay ratio represents a firm's first disclosure, and zero otherwise. Firm-level controls include the logarithm of market capitalization, book-to-market ratio, leverage, dividend yield, and a loss indicator. Institutional-level controls include portfolio size and the number of portfolio holdings within each quarter. The sample period covers January 2018 through December 2023. Standard errors are clustered at the institutional investor level, and t-statistics are reported in parentheses. Statistical significance is denoted as follows: *p<0.1; **p<0.05; ***p<0.01.

	$\Delta StockWeight_{ij,t}$	$\Delta StockWeight_{ij,t+1}$	$\Delta StockWeight_{ij,t+2}$	$\Delta StockWeight_{ij,t+3}$
Ln(PR)	0.0069***	0.0022***	0.0013***	0.0035***
	(19.81)	(7.39)	(6.04)	(14.07)
First Disclosure	-0.1056	0.0600***	0.0133***	0.0113***
	(-0.88)	(12.89)	(5.59)	(4.27)
Ln(PR) × *First Disclosure*	0.0162	-0.0471***	-0.0120***	-0.0126***
	(0.62)	(-55.26)	(-24.05)	(-24.46)
Ln(Market Cap)	-0.0065***	-0.0121***	-0.0043***	-0.0043***
	(-24.55)	(-40.00)	(-22.56)	(-20.68)
BM ratio	0.0031***	0.0028***	-0.0000	0.0010***
	(12.24)	(10.92)	(-0.09)	(5.10)
Leverage	-0.0023**	-0.0209***	0.0035***	-0.0007
	(-2.13)	(-18.38)	(3.92)	(-0.75)
Dividend Yield	-0.1396**	-0.7384***	-0.1335***	-0.0365
	(-2.54)	(-12.54)	(-2.92)	(-0.71)
Loss	0.0056***	0.0074***	0.0029***	0.0086***
	(7.15)	(8.42)	(4.58)	(10.80)
Portfolio Size	0.0000	-0.0001***	-0.0000***	-0.0000***
	(0.08)	(-12.35)	(-10.73)	(-12.99)
Number of Firms	0.0000***	0.0000	0.0000***	0.0000***
	(7.38)	(1.12)	(3.97)	(3.92)
Constant	-0.0281***	0.0710***	0.0067***	-0.0088***
	(-10.12)	(14.88)	(2.82)	(-3.48)
Institutional Investor FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
Observations	2520391	3562721	3324245	2907408
Adjusted R^2	0.141	0.134	0.067	0.096