Managers: Their Effects on Accruals and Firm Policies

By

Douglas DeJong*
Arthur Andersen Professor of Accounting
Tippie College of Business
University of Iowa
Iowa City, IA
Email: douglas-dejong@uiowa.edu
Phone: 319-335-0919

Zhejia Ling
Ph.D. Student
Tippie College of Business
University of Iowa
Iowa City, IA
Email: zhejia-ling@uiowa.edu
Phone: 319-335-1812

May 21, 2009

Preliminary Do Not Quote Without Permission

* Corresponding author.

We thank Forbes and Kevin J. Murphy for generously providing their data. We thank John Geweke, Paul Hribar, and the workshop participants at the University of Iowa for their helpful discussions. Errors are the authors' responsibility.

Managers: Their Effects on Accruals and Firm Policies

Abstract

This study focuses on top managers' effects on accounting accruals by asking whether individual managers can in part explain accounting accruals. We further investigate these manager effects on accruals by asking whether and how managers affect accruals through their decisions on firm policies. Extending the basic research design of Bertrand and Schoar (2003), we show that managers exert a significant individual-specific influence over accruals and are important determinants of accruals. We estimate manager fixed effects for their firm policy choices and show that a manager's economic policy decisions affect the firm's accounting accruals. Finally, we separate and investigate CEO and CFO effects on accruals. We find that CFOs have the same influence as CEOs on accounting accruals, but the magnitude of the accruals is smaller for CFOs than for CEOs, i.e. CFOs tend to push accruals to zero, suggesting that CFOs tend to report more "solid" earnings than CEOs.

Managers: Their Effects on Accruals and Firm Policies

1. Introduction

In this study, we focus on the top managers' effects on accruals. The primary objective of this paper is to ask whether individual managers, as opposed to firm, industry, or market factors, can in part explain accounting accruals. We further investigate these manager fixed effects by asking what proportion of the accounting accruals are associated with their firm policy decisions and what proportion is associated with the manager's accounting choices. Finally, we separate and compare the effects that CEOs and CFOs impose on accounting accruals.

Do individual managers matter for firm's accounting accruals? Despite extensive empirical research on accounting accruals, little consideration has been given to the effects of individual managers. Existing accounting literature typically relies on firm-level, industry-level and market-level characteristics to explain accruals, e.g., Klein (2002), Leuz, Nanda and Wysocki (2003), Hribar and Nichols (2007).

A prevailing view in the financial press and among managers themselves is that top managers are crucial determinants of corporate practices including financial disclosure. In an influential survey paper, Graham, Harvey and Rajgopal (2005) show that managers' career concerns and external reputation are important drivers of financial reporting practices. Consistent with this view, a large body of academic research in fields such as organizational theory has devoted considerable effort in isolating the contribution of management to firms' corporate decisions and performance. Alternatively, in the standard agency model, managers have discretion within the firm but generally their behavior within the firm does not vary across individual managers. Idiosyncratic differences across managers are generally not considered, Bertrand and Schoar (2003).

The search and matching model of the labor market addresses concerns expressed in the previous paragraph, Rogerson and Wright 2005. Managers are heterogeneous and differ in preferences, risk aversion, and skill levels. The manager searches for a position subject to the distribution of compensation offered by different firms. In the meantime, a firm is also searching for a manager. A match occurs when the firm offerings the manager a compensation contract greater than his reservation wage and the manager maximizes the firm's wealth. After the search and match process, individual managers have the opportunity to significantly affect firm policies and practices. One explanation for manager effects is that managers impose their idiosyncratic style after matching with the firm. The other is that firms search for a certain manager from the beginning. Under either explanation, individual managers are the key to implementing changes in corporate policy.

To our knowledge, only a few recent studies provide evidence on manager effects for accruals. Hribar and Yang (2007) show that overconfident managers are more likely to issue overly optimistic forecasts and use income increasing accruals subsequently; Matsunaga and Yeung (2008) find that ex-CFOs utilize more income-decreasing accruals and provide more precise earnings guidance to analysts; and Francis, Huang, Rajgopal and Zang (2008) document a negative relation between CEO press coverage and earnings quality proxied by accrual-based measures.

Recent research in financial economics, Bertrand and Schoar (2003), finds that individual managers have a significant impact on the firm's investment, financing and operating decisions and firm's performance. By adopting the basic research design of Bertrand and Schoar (2003), we test whether a given manager influences accounting accruals at different firms. Specifically, we construct a manager-firm matched panel data set, where we track individual top managers

across different firms over time. We quantify how much of the observed variation in firms' accounting accruals can be attributed to manager fixed effects, controlling for observable and unobservable differences across firms. Our results show that these managers exert a significant individual-specific influence over accruals and are empirically important determinants of accruals. Adding the manager fixed effects to the models of accruals that already account for observable and unobservable firm characteristics results in increases in the adjusted R^2 and all the *F*-tests reject the null hypothesis of no significant joint effects of managers.

Given we document individual managers' significant role in accruals, we next ask how managers affect accruals. As Lafond (2008) points out, there are two important channels through which managers could affect accounting accruals. Since managers are the key decision-makers presiding over firm's investment, financing, and operating policies, Bertrand and Schoar (2003), one channel through which managers potentially affect accounting accruals is through their decisions on these firm policies. For example, managers' decisions to invest internally or engage in mergers and acquisitions have implications for accruals. A second channel through which managers affect accounting accruals, obviously, is accounting choices. Managers' accrual estimates, choice of measurement methods, and discretion in recognizing economic transactions affect accruals. We use Bertrand and Schoar's (2003) design to focus on how manager affect accounting accruals through their firm policy decisions. We estimate manager fixed effects on different firm policies and ask whether and how managers' decisions on these firm polices affect accounting accruals. Our results show that managers' decisions on certain firm policies are associated with their effects on accruals. For example, managers who do not use the firm's market valuation as a benchmark for their investment decisions tend to have more income-decreasing accruals; managers who spend more on R&D and advertising do not have a lot of

income-increasing accruals. In addition, we find that managers have significant additional effects on accruals after controlling for their effects on firm policies. This confirms that firm policy decisions are not the only channel through which managers affect accruals; managers affect accruals significantly through other channels which include accounting choices.

Finally, since we have specific effects for different management positions, we are able to study separately the effects of CEOs and CFOs. Previous studies which examine top managers' effects on firm policies often focus on CEOs. Although CEOs are responsible for major policy choices and firm strategies, CFOs may also be important when it comes to issues such as accounting choices. It is, therefore, worthwhile to compare the role of CEOs and CFOs in affecting accounting accruals. We find that CFOs have the same influence as CEOs on accounting accruals, suggesting that future research should consider the role of CFOs when examining issues related to accruals. In addition, the magnitude of the accruals is smaller for CFOs than for CEOs, i.e. CFOs tend to push accruals to zero, suggesting that CFOs tend to report more "solid" earnings than CEOs.

Our study contributes to the accounting literature addressing accruals. We do this by extending Bertrand and Schoar (2003)'s design to the study of accounting accruals. Other accounting researchers have also begun to use this design. Bamber, Jiang and Wang (2008) and Yang (2009) show that manager effects play an important role in firms' earnings guidance characteristics; Dyreng, Hanlon, and Maydew (2008) investigate managerial fixed-effects with respect to tax avoidance behavior; Ge, Matsumoto and Zhang (2008) examine the effect of CFOs across the menu of a firm's financial reporting choices. We focus on accruals and consider the CEOs, CFOs, and other key executives. We use managers' decisions on firm policies to isolate

managers' effects on accruals through these decisions and their effects on accruals above and beyond these decisions.

The paper is organized as follows. Section 2 provides a brief discussion of Bertrand and Schoar (2003) applied to accounting accruals. Section 3 presents the data sources, describes the construction of the data set and defines major variables of interest. Section 4 quantifies the importance of manager fixed effects for different accrual measures and section 5 discusses manager decisions on firm policies and how these decisions affect accruals. Section 6 compares fixed effects of CEOs and CFOs. Section 7 examines the robustness of our results. Section 8 summarizes.

2. Empirical methodology

To ask how much of the variance in firm's accounting accruals can be attributed to manager-specific effects, we estimate the models below, following Bertrand and Schoar (2003).

$$y_{it} = \alpha_t + \gamma_i + \beta X_{it} + \epsilon_{it} \quad (1)$$

$$y_{it} = \alpha_t + \gamma_i + \beta X_{it} + \lambda_{CEO} + \epsilon_{it} \quad (2)$$

$$y_{it} = \alpha_t + \gamma_i + \beta X_{it} + \lambda_{CEO} + \lambda_{CFO} + \lambda_{Others} + \epsilon_{it} \quad (3)$$

where y_{it} stands for the accrual variable for each firm in each year, α_t are year fixed effects, γ_i are firm fixed effects, X_{it} represents a vector of time-varying firm level controls, and ϵ_{it} is an error term. λ_{CEO}, λ_{CFO} and λ_{Others} are our main variables of interest, representing the incremental fixed effects of individual managers on accrual variables. λ_{CEO} are fixed effects for the group of managers who are CEOs in the last position we observe them, λ_{CFO} are fixed effects for the group of managers who are CFOs in the last position we observe them, and λ_{Others} are fixed effects for the group of managers who are neither CEOs nor CFOs in the last position we

observe them. This allows us to separately study the effect of CEOs, CFOs, and other top executives on firm accounting accruals. When estimating these equations, we account for serial correlation by allowing for clustering of the error term at the firm level.

We estimate equation (1) as the benchmark model, which includes only the firm fixed effect, year fixed effect, and time-varying firm level controls. This allows us to test the explanatory power of these year and firm-level characteristics. Equation (2) and (3) consecutively add the CEO fixed effect and the fixed effects for all three groups of executives (CEOs, CFOs and other top positions). These two models allow us to test whether individual manager fixed effects play a significant role in explaining accounting accruals after controlling for the year fixed effect, firm fixed effect and the relevant time-varying firm characteristics.

If a manager has a unique impact on a firm's accounting accruals, we will observe significant manager fixed effects explaining accruals after controlling for relevant firm-level characteristics. It is evident from equation (2) and (3) that the estimation of the manager fixed effects is not possible for managers who never leave a given firm during the sample period. If a firm has no managerial turnover during the sample period, the firm's fixed effect cannot be separated from the manager's fixed effect because these two effects are perfectly collinear. Therefore, separating manager fixed effects from firm fixed effects is only possible when the firm has at least one manager who switched firms. In our sample construction, we restrict our attention to the subset of firms for which at least one top manager can be observed in at least one other firm and this allows us to estimate the firm fixed effect and manager fixed effect separately. The estimate of the fixed effect for each individual manager enables us to examine not only the existence but also the magnitude of individual managers' effects on firms' accounting accruals.

3. Sample and data

3.1 Sample construction

To estimate manager fixed effects, we adopt Bertrand and Schoar's (2003) basic design to construct a manager-firm matched panel data set that allows us to track the same top managers across different firms over time.

We use the Forbes 800 files, from 1969 to 1991,[1] and Execucomp database, from 1992 to 2006. The Forbes data provide information on the CEOs of the 800 largest U. S. firms. Execucomp allows us to track the top five highest paid executives in the S&P 1500. We require that one individual manager has to switch firms once in our sample period. We also impose the requirement that the managers have to be in each firm for at least three years. This three-year requirement ensures that managers have enough time to "make their mark" on a given company. For each firm satisfying these requirements, we keep years where this firm has other managers as well. The resulting sample contains 954 firms and 811 individual managers who can be followed in at least two different firms. The average length of stay of a manager in a given firm is a little over 6 years and the average number of different firms for each manager is 2.06. [2] Firms from the financial service industry (SIC code 6000-6999) and utility industry (SIC code 4900-4949) are excluded from the analysis. Finally, we match each firm-year with accounting data reported in the Compustat database and acquisition data reported in the SDC database.

3.2 Sample description

Table 1 presents means, medians and standard deviations for firm characteristics variables and the firm policy variables of interest.[3] Details for the definition and construction of

[1] We thank Kevin J. Murphy and Forbes for generously providing us with their data.
[2] Only 32 managers are observed in strictly more than two different firms and the maximum number of firms is 4.
[3] These variables are from Bertrand and Schoar (2003).

the variables reported in the table are available in the appendix. All variables are winsorized at 1% tail to mitigate the outlier problem. The first three columns report descriptive statistics for our manager-firm matched sample. For comparison, we also report the same statistics for all firms in Forbes files and Execucomp data over the period 1969 to 2006 (the population from which we choose our sample) in the last three columns.

The average firm in our sample has a higher level of total assets, sales and market value than the average firm in the Forbes and Execucomp data. This is the same as in Bertrand and Schoar (2003) and tells us that the selection criteria lead us to choose firms larger than the population average. The reason being managers from larger firms are more likely to move to another firm within the Forbes 800 and S&P1500 firms, and managers from smaller firms are more likely to move to private firms or positions in large firms that are below the top five highest paid positions. Therefore, managers from smaller firms cannot be tracked in our data sources and are excluded from our sample. Our focus on larger firms may bias our results, but it is very likely to bias against finding important manager individual effects. In smaller firms, managers might have more influence because they have more personal involvement in the firm's daily activities. In fact, Finkelstein and Hambrick (1996) show that managerial discretion – and hence any manager-specific effect – declines with company size.

Besides being larger than the average firm in the population, the average firm in our sample engages in more acquisition activities and has slightly higher leverage and lower interest coverage, but is very similar to the average population firm with respect to all other characteristics.

3.3 Accounting accruals

We use four measures of accounting accruals, total accruals, abnormal accrual from modified Jones model, and the absolute value of these two accrual measures.

We use the balance sheet approach to calculate total accruals, instead of the cash flow approach, because our sample period starts in 1969 and cash flow statement data is not available before 1987.[4] Specifically,

$$TACC_{i,t} = \Delta CA_{i,t} - \Delta CL_{i,t} - \Delta CASH_{i,t} + \Delta STD_{i,t} - DEP_{i,t},$$

where:

$TACC_{i,t}$ = firm i's total accruals in year t;

$\Delta CA_{i,t}$ = change in firm i's current assets from year $t-1$ to year t;

$\Delta CL_{i,t}$ = change in firm i's current liabilities from year $t-1$ to year t;

$\Delta CASH_{i,t}$ = change in firm i's cash and cash equivalents from year $t-1$ to year t;

$\Delta STD_{i,t}$ = change in firm i's debt included in current liabilities from year $t-1$ to year t;

$DEP_{i,t}$ = firm i's depreciation and amortization expense in year t;

all variables are scaled by lagged total assets.

We calculate abnormal accruals using the time series modified Jones model:[5]

$$TACC_{i,t} = \beta_0 + \beta_1(\Delta Sales_{i,t} - \Delta REC_{i,t}) + \beta_2 PPE_{i,t} + \varepsilon_{i,t},$$

where:

$\Delta Sales_{i,t}$ = change in firm i's sales from year $t-1$ to year t;

$\Delta REC_{i,t}$ = change in firm i's accounts receivables from year $t-1$ to year t;

$PPE_{i,t}$ = firm i's year t gross property, plant, and equipment;

all variables are scaled by lagged total assets.

[4] In the robustness checks in later section, we use the cash flow statement approach to calculate total accruals for the subsample from 1987 to 2006. Our results still hold and we discuss this in section 7.1.

[5] The original Jones model is a firm specific time-series model that controls for the reversal of the firm's accruals. While there is a concern about the size of the variance from the time-series model, we have sufficient data to run the time-series model. We use the time-series model as a conservative approach to analyze accruals.

We estimate this regression for each firm with at least 5 observations. Using the estimated coefficients from the regression, we are able to obtain the predicted values of total accruals, which are considered "normal" accruals. Abnormal accruals are measured by subtracting the normal accruals from total accruals. In other words, abnormal accruals are the error terms in the above regression.

After we estimate these two accrual measures, total accruals and abnormal accruals we take their absolute value. We have four variables in total.

Table 2 summarizes the distribution statistics of these four measures and the correlation between them. As expected, the mean and the median of the signed abnormal accruals are close to zero by construction, while the means of the unsigned measures are positive.[6] In the correlation analysis, Pearson (Spearson) correlations are shown above (below) the diagonal. As expected and consistent with previous literature, the correlations between these accrual variables are high. For the signed accrual variables, the Pearson correlation between total accruals and abnormal accruals is 0.697. For the unsigned accrual variables, the Pearson correlation between total accruals and the abnormal accruals is 0.506.

3.4 Firm level control variables

In our models (1) through (3), the vector X_{it} includes control variables expected to affect accounting accruals. These variables include leverage, growth, size, performance, and operating volatility and they are identified as economic determinants of our accounting accrual variables in the prior literature discussed below.

Bowen, Noreen and Lacey (1981), Watts and Zimmerman (1990), DeFond and Jiambalvo (1994), and Minton and Schrand (1999) suggest that firms have incentives to manager earnings

[6] The means of abnormal accruals are not precisely zero because we estimate abnormal accruals first and then match them with the firm-year observations in our firm-manager matched sample.

to reduce the probability of violating a covenant or to prevent adverse affects on their debt rating. Therefore, we include firm leverage level in the model to control for the leverage related incentives' effect on accounting accruals.

Skinner and Sloan (2002) find that growth firms that fail to meet earnings benchmarks suffer large negative price reactions on the earnings announcement date. Therefore, growth firms have relatively strong incentives to avoid negative earnings surprises, perhaps to avoid increases in the cost of capital or to maintain access to capital. Furthermore, growth firms have an incentive to smooth earnings via accruals because earnings volatility increases perceived firm risk (Beaver, Kettler and Scholes 1970), which, in turn, adversely affects the cost of capital needed to fund new projects (Minton and Schrand 1999). We control for growth opportunities by using the book-to-market ratio (*BM*).

Watts and Zimmerman (1990) argue that larger firms face more political costs and hence have incentives to exercise accounting discretion to reduce unwanted political visibility. We use the natural logarithm of market value to control for size.

Kothari, Leone and Wasley (2002) argue that tests related to accounting discretion that do not control for performance are often mis-specified. To control for the effect of performance on accounting accruals, we include return on assets in the model. It is computed as income before extraordinary items scaled by lagged total assets.

Hribar and Nichols (2007) find that the magnitude of unsigned accruals is a function of firm operating volatility. For the three unsigned accruals measures, we control for the standard deviation of cash flows from operations and the standard deviation of sales to account for firm specific operating volatility.

4. Individual manager fixed effects on accruals

4.1 Significance of incremental explanatory power of manager fixed effects

Table 3 reports the results of *F*-tests and adjusted R^2 from the estimation of equation (1), (2) and (3) for the four accounting accrual measures.[7] Panel A of Table 3 presents the results for signed accounting accruals and Panel B of Table 3 presents the results for unsigned accounting accruals. For each variable, we report in the first row the fit of equation (1), which we use as the benchmark specification that includes only firm fixed effects, year fixed effects and time-varying firm controls. The next two rows, respectively, report the change in adjusted R^2 when we estimate equation (2) and (3), where we consecutively add the CEO fixed effects and the fixed effects for all three groups of managers (CEOs, CFOs and other top positions). The second and third rows also report *F*-tests for the joint significance of the manager fixed effects.

Overall, the findings in Table 3 suggest that manager fixed effects matter both economically and statistically for firms' signed and unsigned accounting accruals. Including managers' fixed effects increases the adjusted R^2 of the estimated models and *F*-tests allow us to reject the null hypothesis that manager fixed effects are jointly not different from zero. We now discuss the results in Table 3 in more detail.

The first variable in Table 3 Panel A is total accruals. The first row of total accruals is the benchmark specification for equation (1), which includes controls for firm fixed effects, year fixed effects, leverage, B/M, logarithm of market value, ROA. The adjusted R^2 for this specification is 0.105. In the second row of total accruals, where we include the CEO fixed effects, the adjusted R^2 of the model increases from 0.105 to 0.116 and 155 out of 235 CEOs fixed effects are statistically significant at the 10% level. In the third row, where we include all manager fixed effect, the adjusted R^2 of the model increases to 0.138 and 451 out of 711

[7] The adjusted R^2 is calculated based on the within R^2 from the command xtreg, fe in Stata.

manager fixed effects are statistically significant at the 10% level. The *F*-tests are reported to test the joint significance of the manager fixed effects. All of the *F*-tests are large enough ($p < 0.001$) to reject the null hypothesis of no significant joint effects of managers. These results show that after controlling for the known economic determinants of total accruals as well as year and firm fixed effects, individual manager effects play a significant incremental role in explaining total accruals.

The next variable is abnormal accruals estimated from the modified Jones model. The benchmark specification also includes controls for firm fixed effects, year fixed effects, leverage, B/M, logarithm of market value, ROA. The results indicate increases in the adjusted R^2 when including the manager fixed effects. Specifically, the adjusted R^2 increases from 0.049 to 0.064 when we add manager fixed effects to explain abnormal accruals. All of the *F*-tests are significant ($p < 0.001$) and reject the null hypothesis of no significant joint effects of managers. In fact, in the estimation of equation (3) for abnormal accruals, 435 out of 711 manager fixed effects are individually statistically significant at the 10% level.

Panel B of Table 3 reports the estimation results for the unsigned accounting accruals. For each accrual measure, the benchmark specification includes controls for firm fixed effects, year fixed effects, leverage, B/M, logarithm of market value, ROA, standard deviation of cash flows from operations and the standard deviation of sales. For the absolute value of total accruals, the adjusted R^2 for the benchmark specification is 0.076; when we add CEO fixed effects, the adjusted R^2 is increased to 0.087; when we add all manager fixed effects, the adjusted R^2 is increased to 0.114 and 425 out of 711 manager fixed effects are statistically significant at the 10% level. For the absolute value of abnormal accruals, we observe an increase from 0.059 to 0.081 following the inclusion of the manager fixed effects and 433 out of 711 manager fixed

effects are statistically significant. For these two measures, all of the *F*-tests are significant ($p < 0.001$) and reject the null hypothesis of no significant joint effects of managers.

To summarize, Panel A and B of Table 3 show that manager fixed effects play a statistically significant role in explaining accounting accruals. Adding manager effects to the model increases the adjusted R^2 and all manager fixed effects are jointly significant.

4.2 Magnitude of manager fixed effects

Given the results that manager effects explain a significant fraction of the variation in firm accounting accruals, we would like to gain more insight into the economic magnitude of the manager effects on accounting accruals and the differences between managers. We report the size distribution of these manager fixed effects in Panel C of Table 3, where we show mean, standard deviation, 25th percentile, median and 75th percentile.

Overall, Table 3 Panel C shows that the variation in the size of manager fixed effects is economically large. For the distribution of manager fixed effects on total accruals, the difference between a manager at 25th percentile and 75th percentile is 0.049. This suggests that replacing a manager at the 25th percentile with one at the 75th increases the average total accruals by 0.049. Given the average level of total accruals in our sample is -0.043 (see Table 2), this increase is economically significant. The difference between the 25th percentile and 75th percentile in the abnormal accruals is 0.037, compared with an average abnormal accruals level of -0.003 in our sample. The table also shows that a manager in the bottom quartile reduces the absolute value of total accruals by 0.018, while a manager in the top quartile increases it by 0.019. Finally, for the absolute value of the abnormal accruals, the differences between a manager at 25th percentile and 75th percentile are 0.027.

The mean and the median manager fixed effects for most of these accruals measures are very close to zero. This indicates that our sample construction and our focus on externally hired managers do not lead us to select relatively more conservative or more aggressive managers.

5. How can managers affect accounting accruals?

The previous section documents that individual managers play a significant role in accounting accruals. The interesting question following this finding is how managers affect accounting accruals. As Lafond (2008) points out, there are two important channels through which managers could affect accounting accruals. Since managers are the key decision-makers presiding over firm's investment, financing, and operating policies, Bertrand and Schoar (2003), (for brevity, we refer to these policies as firm policies), one channel through which managers potentially affect accounting accruals is through their decision on these firm policies. For example, managers' decisions to undertake more risky projects or engage in mergers and acquisitions will have implications for accruals. A second channel through which managers affect accounting accruals, obviously, is accounting choices. Managers' accrual estimates, choice of measurement methods, and discretion in recognizing economic transactions affect accruals.

Using Bertrand and Schoar's (2003) design, we focus on how managers affect accounting accruals through their firm policy decisions.

5.1 Individual manager effects on firm policies

We replicate Bertrand and Schoar (2003) to estimate manager fixed effects on the firm policies. The empirical method is the one discussed in section 2. Instead of estimating equation (1) to (3) for accrual variables, we estimate these three equations for the different firm policy variables considered by Bertrand and Schoar. Table 4 reports our replication results, which

extend the period covered by Bertrand and Schoar (2003) by seven years from 1969 to 1999 to 2006. Overall, the results are qualitatively the same as Bertrand and Schoar (2003),[8] which show that manager individual effects explain a significant fraction of the variation in firm policies. We briefly discuss the replication results to show the manager effects on these firm policies.

Panel A of Table 4 reports the results for investment policy. The first variable is capital expenditures. The benchmark specification includes controls for firm fixed effects, year fixed effects, cash flow, lagged Tobin's Q, and the lagged logarithm of total assets. The adjusted R^2 for this specification is 0.234. The adjusted R^2 increases to 0.254 when we include the CEO fixed effects and to 0.310 when we include all sets of manager fixed effects. The next two variables are investment to Tobin's Q and investment to cash flow sensitivities, respectively. The fixed effects of interest here relate not to the level of a given variable, but rather to the sensitivity of that variable to Tobin's Q and cash flow. In practice, for investment to be Q sensitive, we start by regressing investment on year fixed effects, cash flow, lagged Tobin' Q, the lagged logarithm of total assets, firm fixed effects, and firm fixed effects interacted with lagged Tobin's Q. We then add to this benchmark specification manager fixed effects as well as manager fixed effects interacted with lagged Tobin's Q. The estimated coefficients of interest are those on the interaction terms. We proceed in a similar way to estimate manager fixed effects for investment to cash flow sensitivity. The results indicate increases in adjusted R^2 when including the interaction terms of manager fixed effects with cash flow and lagged Tobin's Q. The last two

[8] Our results are quantitatively different from the results of Bertrand and Schoar (2003). One possible reason is that we have a different sample period and the economic environment has changed, e.g. the dot com bubble. The other reason may be the different way the software runs the regression. We use command xtreg, fe in Stata to run fixed effect regressions, where the adjusted R^2 is calculated based on the within R^2. So in our results, the firm fixed effects are not used to calculate the adjusted R^2. We do not know how Bertrand and Schoar (2003) ran the regressions and calculated the adjusted R^2. If they create dummy variables for all the firm fixed effects in the regression and use them to calculate the R^2, they would end up with a much higher reported adjusted R^2. Using this approach to run all the regressions, we got much higher adjusted R^2, which were much closer to the results of Bertrand and Schoar (2003). We stay with the xtreg, fe fixed effect regression, because we believe this better captures the incremental explanatory power of manager fixed effects given the known and observable related factors.

variables in Panel A are number of announced acquisitions and number of effective acquisitions. For both of these two variables we observe increases in adjusted R^2 following the inclusion of the manager fixed effects. Also, all the F-tests in this panel are significant, leading us to reject the null hypothesis of no joint manager effect in all cases.

Panel B of Table 4 focuses on financial policy. Included in all regressions are firm fixed effects, year fixed effects, the lagged logarithm of total assets, and the rate of return on assets. The adjusted R^2 of the leverage regression increases from 0.116 to 0.226 when we include the manager fixed effects. The adjusted R^2 of the interest coverage regression increases from 0.037 to 0.081. The adjusted R^2 of the cash holdings regression goes up by 0.152, from 0.121 to 0.273, when we compare the benchmark specification with the specification that includes all manager fixed effects. Finally, managers appear to be important determinants of dividend policy, with an overall increase in adjusted R^2 of about 0.092.

Panel C of Table 4 reports our results for the organizational policy variables. Again, we find that top executives have large effects on the realization of these variables. The fit of the diversification regression improves from 0.185 to 0.241. The adjusted R^2s of the R&D and advertising regressions increase by 0.123 and 0.130, respectively. Cost-cutting policy, as proxied by the ratio of SG&A to total sales, is affected by the identity of the managers as well.

Panel D of Table 4 reports the size distribution of the manager fixed effects for each of the regressions on firm policy variables. The results show that variation in the size of the manager fixed effects is economically large. Replacing a manager in the bottom quartile by a manager in the top quartile increases the firm policy variable significantly.

5.2 Managers' effects on accruals through firm policy decisions

We have documented that managers affect firm accounting accruals significantly and replicated Bertrand and Schoar (2003) to estimate manager specific effects on firm policies. We now analyze the correlation structure between the manager specific fixed effects on firm policies and fixed effects on accounting accruals.

Table 5 reports the simple Pearson correlation between manager fixed effects on firm policies and on accounting accruals. We see that manager fixed effects for accruals are correlated with certain manager's firm policy decisions. For example, the manager fixed effect for total accruals is negatively associated with a manager's R&D decision. A possible explanation for this is that managers who spend more on R&D focus more on developing new products and not managing earnings. These managers prefer to attract more customers and increase sales volume to generate more income instead of using accounting discretion to manipulate earnings up. In addition, if they want to manage earnings up to make the performance look good, they would have already cut expenses including R&D. However, the interpretation of these correlations is premature, because manager effects on different firm policies are correlated as well. For example, Bertrand and Schoar (2003) shows that there is strong positive correlation between manager fixed effects on capital expenditure and on R&D, which can be interpreted as managers who follow internal investments engage in more R&D. In untabulated results, we show a similar correlation between manager fixed effects for these firm policy variables. Hence, to provide a better perspective on the individual decisions of the manager, in Table 6 we consider the multivariate relation between manager fixed effects on accrual measures and on firm policies.

Table 6 reports results for the multivariate regressions. The dependent variables are manager fixed effects on different accrual measures and the independent variables are manager fixed effects on firm policy variables from Table 4. However, in untabulated results, manager

fixed effects on "N of announced acquisitions", "N of effective acquisitions" and "N of diversifying acquisitions" are highly correlated.[9] Thus, we only include "N of announced acquisitions" in the regression.[10] We discuss these regression results in more details below.

In the regression of manager effects on total accruals, investment-Q sensitivity and cash holdings appear to positively correlate with total accruals. This implies that managers who use the firm's market valuation as a benchmark for their investment decision and managers who have more cash on hand tend to have a higher level of total accruals. Another interesting finding is that manager effects on the number of acquisitions are negatively related to manager effects on total accruals. Since we use the balance sheet approach to calculate total accruals, total accruals are positively correlated with the number of acquisitions at the firm level. However, when we attribute the number of acquisitions to the manager effects, it shows that managers who engage in acquisitions tend to have lower levels of total accruals.[11] Finally, we observe that R&D and SG&A fixed effects are both negatively correlated with total accruals fixed effects. This can be interpreted as managers who spend more R&D and SG&A tend to have less total accruals. We provided a possible explanation in the previous section when we discussed the simple negative correlation between R&D and total accruals.

In the regression of manager effects on abnormal accruals, we observe a negative correlation between investment fixed effects and abnormal accruals fixed effects. This suggests that managers who favor internal investments tend to have less abnormal accruals. Again, this is

[9] The correlation between "N of announced acquisitions", "N of effective acquisitions" is 0.91 the correlation between "N of announced acquisitions" and "N of diversifying acquisitions" is 0.59 and the correlation between "N of effective acquisitions" and "N of diversifying acquisitions" is 0.62

[10] Although we only report results for the regression including number of announced acquisitions, all the results are the same when we use number of effective acquisitions instead.

[11] This negates our concern about the use of the balance sheet approach to calculate total accruals. If we find a positive correlation between number of acquisition fixed effects and total accruals fixed effects, the balance sheet approach could be the reason for this result. However, since we find a negative correlation here, the balance sheet approach should bias against our findings. In addition, we conduct robustness checks by using cash flow statement approach and our results still hold, see section 7.1.

consistent with the view that managers would cut economic costs if they want to use accruals to boost earnings, and managers who focus on internal investment do not use accruals to manage earnings. Also, we see that managers with more acquisitions and advertising costs have less abnormal accruals.

In the absolute total accruals regression, we observe a positive correlation between investment and absolute total accruals. Since there is no relation between investment and signed total accruals, this implies that there are two major types of managers who favor internal investment: ones who tend to have more income-increasing total accruals and others who tend to have more income-decreasing total accruals. We also see a negative correlation between investment-Q sensitivity and absolute total accruals. Combined with results in the regression for signed total accruals, these correlations are caused by managers who have negative effects on investment-Q sensitivity. Therefore, other things being equal, managers who are more sensitive to market valuation when making investment decisions do not have a systematic impact on accruals, and managers who are less sensitive tend to have more income decreasing total accruals. Finally, managers who engage in more acquisitions and spend more on advertising and SG&A have larger absolute total accruals, which is consistent with the results in regression for signed total accruals.

For the unsigned abnormal accruals, investment fixed effects and interest coverage fixed effects are positively correlated with absolute abnormal accruals fixed effects; this suggests managers who favor internal investment have more absolute abnormal accruals. Investment-Q sensitivity fixed effects are negatively correlated with absolute abnormal accruals. We also observe that managers who prefer high leverage and pay more dividends tend to have lower levels of absolute abnormal accruals.

Overall, we see that managers' effects on accounting accruals are partly due to their economic policy decisions. This is consistent with Lafond (2008), who argues that one channel by which managers can affect accruals is through firm policy decisions. One interesting observation is that R^2 of the regression decreases as we move from total accruals to abnormal accruals. One explanation is a manager's firm policy decisions affect accounting accruals and the controls introduced to model "normal" accruals. As the models add more economic control variables, manager fixed effects from their firm policy decisions should have less explanatory power in explaining their effects on the abnormal accruals. This is what we observe, suggesting that the economic variables introduced into the accrual expectation models control some but not all the effects associated with economic decisions.

As discussed before, our manager firm policy decisions can be categorized into three groups: investment, financial, and organizational. We have already showed that managers' effects on accounting accruals are correlated to some of these firm policy decisions and now we want to examine which group of firm policy decisions is more correlated to accruals relative to the other two groups. In Table 7, we repeat the multivariate analysis in Table 6, but only examine one group of firm policy decisions at one time. All significant coefficients from Table 7 regressions are consistent with results in Table 6. We focus on the R^2 of each group's regression and use the Vuong test to examine which group of manager firm policy decisions has the most explanatory power for the manager effects on accruals. Except for the absolute abnormal accruals, the managers' organizational firm policy decisions have the highest explanatory power and the managers' financial policy decision have the lowest explanatory power for their effects on accruals.

5.4 Managers' effects on accruals through channels other than firm policy decisions

From regressions in the previous section, we see that there are still unexplained manager effects on accruals. As we discussed before, the other important channel through which managers affect accruals is through their accounting choices, and this unexplained proportion should include manager effects on accruals through their accounting choices.[12] Therefore, manager fixed effects on accruals could be split into two parts: one is the part which could be explained by managers' economic policy decisions; the other one is the part which could be explained by other factors including managers' accounting choices. To see how much manager effects on accruals are due to factors other than their economic policy decisions, we run the regression for accrual measures as following:

$$y_{it} = \alpha_t + \gamma_i + \beta X_{it} + \lambda_{CEO\_firm} + \lambda_{CFO\_firm} + \lambda_{Others\_firm} + \epsilon_{it} \quad (4)$$

$$y_{it} = \alpha_t + \gamma_i + \beta X_{it} + \lambda_{CEO\_firm} + \lambda_{CFO\_firm} + \lambda_{Others\_firm} + \lambda_{CEO} + \lambda_{CFO} + \lambda_{Others} + \epsilon_{it} \quad (5)$$

These two equations are similar to equation (1) and (3) in section 2. The only difference is that we add more controls, λ_{CEO_firm}, λ_{CFO_firm} and λ_{Others_firm}. λ_{CEO_firm} represents CEO fixed effects on different firm policies for the given firm-year, i.e. CEO fixed effects on investment, investment-Q sensitivity, investment-CF sensitivity, N of acquisitions, etc.. Similarly, λ_{CFO_firm} represents CFO fixed effects on different firm policies for the given firm-year, and λ_{Others_firm} represents other manager fixed effects on different firm policies for the given firm-year[13]. These firm policy fixed effects are retrieved from regressions in Table 4. Since we have already showed that these manager fixed effects affect manager fixed effects on accruals, they could be considered as economic determinants of accruals. Therefore, λ_{CEO}, λ_{CFO} and λ_{Others} in this regression are the manager fixed effects on accruals after we control for year fixed effect, firm

[12] This unexplained proportion could be due to factors other than just accounting choices.
[13] Obviously, there could be several "other" managers who are not CEO or CFO in a given firm-year. In that case, we average these other manager fixed effects and have only one "other" manager effect for each corporate policy variable in the regression.

fixed effect, the relevant time-varying firm characteristics, and more importantly, all managers' fixed effects on firm policies for that firm-year. These fixed effects we estimate should be manager effects on accruals through channels other than economic policy decisions.

Table 8 shows the regression results of equation (4) and (5) for different accrual variables. *F*-tests and adjusted R^2 in Panel A and B imply that managers still affect accruals significantly after controlling for their firm policy decisions. As we discussed before, managers could affect accounting accruals through economic policy decisions and accounting choices. This confirms that there are channels other than economic policy decisions through which managers could affect accruals. Above and beyond policy decisions, managers still affect accounting accruals significantly. Comparing Panel C of Table 8 to Panel C of Table 3, we see the fixed effects in Table 8 have larger standard deviations than in Table 3. This suggests that when managers affect accruals through channels other than real decisions, they are much more heterogeneous. Since these other channels include accounting choices, this implies that managers may have a wider degree of heterogeneity in accounting choices than in economic policy decisions.

6. CEOs' effects on accruals vs. CFOs' effects on accruals

When we estimate manager specific effects on accruals in section 4, we create three different groups of manager fixed effects: CEOs, CFOs and Others. Therefore, the fixed effects we estimate for each position is its effect on accruals after controlling for other positions' effects in the same firm-year. This allows us to separately study the effects of CEOs and CFOs on accounting accruals.

So far, the limited accounting literature which examines top managers' effect on accruals focuses on CEOs. One reason is that the CFO is the CEO's agent (Graham and Harvey, 2000) and a CEO has the power to replace a CFO who does not follow the CEO's preferences (Mian, 2001; Fee and Hadlock, 2004). So it may be the case that CFOs make financial reporting decisions consistent with the wishes of their CEOs. However, Geiger and North (2006) show that newly appointed CFOs drive changes in discretionary accruals of their new firms, suggesting CFOs exercise independent influence on firms' financial reporting. Recent corporate fraud cases such as Enron, WorldCom, Qwest, and Adelphia also indicate that CFOs can significantly affect accounting quality. This evidence suggests that while CEOs are responsible for major policy choices, firm strategy, and other major decisions, CFOs may be as important as well when it comes to issues such as accounting choices. It is, therefore, worthwhile to compare the role played by CEOs and CFOs in affecting accounting accruals.

From previous sections, results suggest a manager can have either a positive or negative effect on different accrual measures. A positive effect represents a manager's preference for increasing a specific accrual measure, while a negative effect represents a manager's preference for decreasing that accrual measure. To evaluate a manager's effect on accruals, we first consider the manager's absolute effect and then the direction of the effect. Panel A of Table 9 compares the absolute value of fixed effects for CEOs and CFOs, which represents managers' influence regardless of direction. Since all t-tests are insignificant, the results tell us that the fixed effects of CEOs and CFOs on accounting accruals, regardless of direction, are the same. Therefore, CFOs have the same influence as CEOs on accounting accruals, suggesting that future research should consider CFOs' role when examining issues related to accruals.

Given CFOs have the same influence as CEOs, we want to further investigate whether these two different positions affect accruals in the same way. Panel B of Table 9 compares the signed fixed effects of these two positions, which represent managers' directional influence on accruals. T-tests for both unsigned accrual measures are significant. CFOs tend to decrease accruals' absolute value, i.e. CFOs tend to have a smaller magnitude of accruals than CEOs. This tells us that CFOs tend to push accruals to zero more so than CEOs and suggests that CFOs report more "solid" earnings than CEOs.

7. Robustness checks of results

7.1 Cash flow statement approach to calculate total accruals

In the analysis above, we use the balance sheet approach to calculate accruals, instead of the cash flow approach, because our sample period starts in 1969 and cash flow statement data are not widely available before 1987. Our accrual measures could be misestimated because of corporate transactions such as mergers and acquisitions (see Revsine, Collins, and Johnson 1999; and Hribar and Collins 2002). Especially when number of acquisitions is one of the firm policies we examine in this study, one might worry that balance sheet approach will mechanically lead to the positive correlation between manager's effects on acquisitions and accruals. However, as we show above, the negative relationship between manager fixed effects on number of acquisitions and signed accruals measures negates this concern.

Nevertheless, to assess whether our results are sensitive to the approach we use to calculate total accruals, we replicate the analysis above by using total accruals based on cash flow statement data. We define total accruals as earnings from continuing operations minus cash

flows from continuing operations earnings. Because the necessary cash flow statement data for most firms are available on only after 1987, we limit this analysis only to the period after 1987.

Using cash flow statement data to compute abnormal accruals does not qualitatively change the results. Un-tabulated results show that manager fixed effects are still statistically and economically significant in explaining accounting accruals. In addition, managers' effects on accounting accruals are correlated with their economic policy decisions. [14]

7.2 The forward-looking Jones model to estimate abnormal accruals

In the analysis above, we use the modified Jones model to estimate abnormal accruals. The modified Jones model is a widely-used but not the only way to estimate abnormal accruals. Therefore, we want to check whether our results still hold when using alternative approach to estimate abnormal accruals. Specifically, we use the forward-looking Jones model developed by Dechow, Richardson and Tuna (2003) to calculate abnormal accruals.

Compared to the modified Jones model, the forward-looking Jones model makes three adjustments. First, the modified Jones model assumes all credit sales in each period are discretionary and induces a positive correlation between abnormal accruals and current sales growth. The second adjustment includes last year's accruals (i.e., lagged total accruals) in the model, because accruals by definition reverse through time and therefore some portion is predictable based on last year's accruals. The third adjustment is the realized future sales growth. This is included in the model because anticipated future sales will rationally affect accruals and

[14] Details of the analysis are available from the authors. A similar approach is used when presenting our results throughout section 7.

this effect on accruals is not due to managers' discretion. We find that our results are robust to the forward-looking Jones model.[15]

7.3 Lack of fit in the accrual model

Large abnormal accruals may arise from earnings management, but are also due to lack of fit in the accrual estimation model (see Hribar and Nichols 2007). The regression residual from the estimation of the accrual model measures "true" abnormal accruals with error. When using signed abnormal accruals, pure measurement error reduces the power of the test but does not bias the test. However, measurement error in signed abnormal accruals increases unsigned abnormal accruals on average and will bias the test. Therefore, one might worry that the significant manager fixed effects on absolute abnormal accruals are driven by a few managers who happen to stay in firms whose accrual models lack good fitness. In other words, if a manager stays in multiple firms where the accrual models do not fit the accrual generating process, we will then observe large absolute abnormal accruals for this manager and mistake them for the manager's preference for manipulating accruals.

We address this concern by examining the relationship between the R^2 of the accrual model estimation for each firm and the manager fixed effects on absolute abnormal accruals. If the significant manager fixed effects on absolute abnormal accruals are due to lack of fit in the accrual model, we should observe that the lower the R^2 of accrual model estimation, the higher manager fixed effects on absolute abnormal accruals. We find that the Pearson correlation between manager fixed effects on absolute abnormal accruals and the R^2 of accrual models is only 0.001, which suggests they are not correlated. In addition, when we partition the firm-year

[15] Consistent with the observation in section 5.2, as accrual models add more economic control variables, manager fixed effects from their firm policy decisions have less explanatory power when explaining their effects on the abnormal accruals. Compared to the modified Jones model, the forward-looking Jones model controls for more economic variables and the R^2 of the forward-looking Jones model regression is smaller.

observations into quintiles based on the R^2 of the accrual model for each firm, we do not observe any relationship between the quintile and the manager fixed effects on accruals.

8. Conclusion

Existing accounting literature typically relies on critical events and firm-level characteristics to explain firms' accruals but has rarely examined the role played by top managers. A recent influential study in financial economics, Bertrand and Schoar (2003), finds that individual managers have a significant impact on the firm's investment, financing and operating decisions. This prompted us to investigate whether managers exert a significant individual-specific influence over accounting accruals as well.

We follow the empirical framework of Bertrand and Schoar (2003) to analyze the importance of a manager dimension in explaining variation of different accrual measures. We quantify how much of the observed variation in firm's accounting accruals can be attributed to manager fixed effects after controlling for observable and unobservable differences across firms. Our results show that individual managers play both statistically and economically significant incremental roles in explaining accounting accruals. Adding the manager fixed effects to the models of accruals results in increases in the adjusted R^2 and all the F-tests reject the null hypothesis of no significant joint effects of managers. We further investigate these manager effects by asking whether and how managers affect accruals through their firm policy decisions. Our results show that firm policy decisions is one channel but not the only one through which manager affect affect accounting accruals. When managers affect accruals through channels other than firm policy decisions, they are much more heterogeneous. Finally, we separate and compare fixed effects of CEOs and CFOs on accounting accruals. We show that CFOs have the

same influence as CEOs on accounting accruals but tend to report more "solid" earnings than CEOs.

Our study contributes to the accounting literature by adding a "people" dimension in explaining accounting accruals. The significant influence managers exert on accounting accruals, coupled with results of limited accounting studies on managers (e.g., Hribar and Yang 2007, Bamber, Jiang and Wang 2008) suggest that considering the role played by individual managers has great potential to enhance our understanding of how firms make financial reporting choices. Developing disclosure theory or further empirical evidence on how individual managers affect other financial reporting choices is a fruitful direction for future research.

References

Bamber, L., J. X. Jiang, and I. Y. Wang. 2008. What's my style? The influence of top managers and their personal backgrounds on voluntary corporate financial disclosure. *Working Paper*.

Beaver, W., P. Kettler, and M. Scholes. 1970. The association between market determined and accounting determined risk measures. *The Accounting Review* 45: 654-682.

Bennedsen, M., F. Perez-Gonzalez, and D. Wolfson. 2007. Do CEOs matter? *Working paper*.

Bernard, V. and D. Skinner. 1996. What motivates managers' choice of discretionary accruals? *Journal of Accounting and Economics* 22 (1–3): 313-325.

Bertrand, M. and A. Schoar. 2003. Managing with style: The effects of managers on firm policies. *Quarterly Journal of Economics* 118 (November): 1169-1208.

Bergstresser, D. and T. Philippon. 2006. CEO incentives and earnings management. *Journal of Financial Economics* 80 (3): 511-529.

Bowen, R., E. Noreen, and J. Lacey. 1981. Determinants of the corporate decision to capitalize Interest. *Journal of Accounting and Economics* 3(3):154-179.

Bowen, R., S. Rajgopal, and M. Venkatachalam. 2007. Accounting discretion, corporate governance and firm performance. *Working Paper*.

Burgstahler, D. and I. Dichev. 1997. Earnings management to avoid earnings decreases and losses. *Journal of Accounting and Economics* 24 (1): 99-126.

Chatterjee, A. and D. Hambrick. 2006. It's all about me: Narcissistic CEOs and their effects on company strategy and performance. *Working paper*.

Cohen, D., A. Dey, and T. Lys. 2008. Real and accrual-based earnings management in the pre- and post-Sarbanes Oxley periods. *The Accounting Review* 83 (05): 757-787.

Dechow, P. 1994. Accounting earnings and cash flows as measures of firm performance: The role of accounting accruals. *Journal of Accounting and Economics* 18: 3-42.

Dechow, P., S. Richardson, and A. Tuna. 2003. Why are earnings kinky? An examination of the earnings management explanation. *Review of Accounting Studies* 8 (2-3): 355-384.

Dechow, P. and D. Skinner. 2000. Earnings management: reconciling the views of accounting academics, practitioners, and regulators. *Accounting Horizons* 14 (2), 235–250.

DeFond, M. and J. Jiambalvo. 1991. Incidence and circumstances of accounting errors. *The Accounting Review*; 66(3): 643-55.

Fields, T., T. Lys, and L. Vincent. 2001. Empirical research on accounting choice. *Journal of Accounting & Economics* 31, 255–307.

Finkelstein, S. and D. Hambrick. 1996. *Strategic leadership: Top executives and their effects on organizations.* St. Paul, MN: West Publishing Company.

Francis, J., A. H. Huang, S. Rajgopal, and A. Y. Zang. 2008. CEO reputation and earnings quality. *Contemporary Accounting Research* 25 (1): 109-147.

Geiger, M. and D. North. 2006. Does hiring a new CFO change things? An investigation of changes in discretionary accruals. *The Accounting Review* 81(4): 781-809.

Gompers, P., J. Ishii, and A. Metrick. 2003. Corporate governance and equity prices. *The Quarterly Journal of Economics* 118 (February): 107-155.

Gore, A., S. Matsunaga., and P. Yeung 2008. The relation between financial monitoring and incentives for chief financial officers. *Working Paper.*

Graham, J., and C. Harvey. 2001. The theory and practice of corporate finance: evidence from the field. *Journal of Financial Economics* 60: 187-243.

Graham, J., C. Harvey, and S. Rajgopal. 2005. The economic implications of corporate financial reporting. *Journal of Accounting and Economics* 40 (1-3): 3-73.

Healy, P. and K. Palepu. 2001. Information asymmetry, corporate disclosure, and the capital markets: a review of the empirical disclosure literature. *Journal of Accounting and Economics* 31, 405-440.

Healy, P. and J. Wahlen. 1999. A review of the earnings management literature and its implications for standard setting. *Accounting Horizons* 13, 365-383.

Hribar, P. and C. Nichols. 2007. The use of unsigned earnings quality measures in tests of earnings management. *Journal of Accounting Research* 45 (5): 1017-1053.

Hribar, P. and H. Yang. 2007. Does CEO overconfidence affect management forecasting and subsequent earnings management? *Working paper.*

Jiang, J., K. Petroni, and I. Wang. 2008. CFOs and CEOs: Who has the most influence on earnings management? *Working paper.*

Klein, A. 2002. Audit committee, board of director characteristics, and earnings management. *Journal of Accounting and Economics* 33: 375-400.

Kothari, S., A. Leone, and C. Wasley. 2005. Performance matched discretionary accrual measures. *Journal of Accounting and Economics* 39: 163-197.

Lafond, R. 2008. Discussion of "CEO reputation and earnings quality". *Contemporary Accounting Research* 25 (1): 149-156.

Leuz, C., D. Nanda, and P. D. Wysocki. 2003. Earnings management and investor protection: An international comparison. *Journal of Financial Economics* 69: 505-527.

Liu, C. and D. Yermack. 2007. Where are the shareholders' mansions? CEOs home purchases, stock sales, and subsequent company performance. *Working paper*.

Malmendier, U. and G. Tate. 2005. CEO overconfidence and corporate investment. *Journal of Finance* (December): 2661-2700.

Matsunaga, S. and P. Yeung. 2008. Evidence on the impact of a CEO's financial experience on the quality of the firm's financial reports and disclosures. *Working paper*.

Minton, B. and C. Schrand. 1999. The impact of cash flow volatility on discretionary investment and the costs of debt and equity financing. *Journal of Financial Economics* 54: 423-460.

Rogerson, Richard, R. Shimmer, and R.Wright. 2005. Search-theoretic models of the labor market: a survey. *Journal of Economic Literature* 43: 959-988.

Rotemberg, J. and G. Saloner. 2000. Visionaries, managers, and strategic direction. *RAND Journal of Economics* 31 (4): 693-716.

Skinner, D. and R. Sloan. 2002. Earnings surprises, growth expectations, and stock returns or don't let an earnings torpedo sink your portfolio. *Review of Accounting Studies* 7:289-312.

Van den Steen, E. 2005. Organizational beliefs and managerial vision. *Journal of Law, Economics and Organization* 21(1): 256-283.

Watts, R. and J. Zimmerman. 1990. Positive accounting theory: a ten-year perspective. *The Accounting Review* 65, 131-156.

Appendix

The specific variables used in the analysis are defined as follows:

- *Total Assets* is the firm's total assets (Compustat item 6) at the fiscal year-end.
- *Total Sales* is the firm's total sales (Compustat item 12) for the fiscal year.
- *Market Value* is defined as the product of common shares outstanding (Compustat item 199) and common stock's close price (Compustat item 25) at fiscal year-end.
- *Investment* is capital expenditures (Compustat item 128) over net property, plant, and equipment at the beginning of the fiscal year (Compustat item 8).
- *Average Tobin's Q* is defined as the market value of assets divided by the book value of assets (Compustat item 6), where the market value of assets equals the book value of assets plus the market value of common equity less the sum of the book value of common equity (Compustat item 60) and balance sheet deferred taxes (Compustat item 74).
- *Cash flow* is defined as the sum of earnings before extraordinary items (Compustat item 18) and depreciation (Compustat item 14) over net property, plant, and equipment at the beginning of the fiscal year (Compustat item 8).
- *Leverage* is defined as long-term debt (Compustat item 9) plus debt in current liabilities (Compustat item 34) over long-term debt plus debt in current liabilities plus the book value of common equity (Compustat item 60).
- *Cash holdings* is defined as cash and short-term investments (Compustat item 1) over net property, plant, and equipment at the beginning of the fiscal year (Compustat item 8).
- *Interest coverage* is earnings before depreciation, interest, and tax (Compustat item 13) over interest expenses (Compustat item 15).
- *Dividends/ earnings* is the ratio of the sum of common dividends (Compustat item 21) and preferred dividends (Compustat item 19) over earnings before depreciation, interest, and tax (Compustat item 13).

- *R&D* is the ratio of R&D expenditures (Compustat item 46) over lagged total assets (Compustat item 6).
- *Advertising* is the ratio of advertising expenditures (Compustat item 45) over lagged total assets (Compustat item 6).
- *SG&A* is the ratio of selling, general, and administrative expenses (Compustat item 189) over sales (Compustat item 12).
- *N of announced acquisitions* is the total number of announced acquisitions in the fiscal year.
- *N of effective acquisitions* is the total number of effective acquisitions in the fiscal year.
- *N of diversifying acquisitions* is the number of acquisitions during the fiscal year in two-digit industries different from those the acquirer currently operates in.
- *Return on assets* is the ratio of earnings before extraordinary items (Compustat item 18) over lagged total assets (Compustat item 6).
- *Operating return on assets* is the ratio of operating cash flow (Compustat item 308) over lagged total assets (Compustat item 6).
- *Total accruals* is calculated by using the balance sheet approach.
- *Abnormal accruals* is the abnormal accruals by estimating time series modified Jones model.
- *Abs. total accruals* is the absolute value of total accruals.
- *Abs. abnormal accruals* is the absolute value of *Abnormal accruals.*

Table 1. Summary Statistics of Firm Characteristics

	Manager-firm matched sample			Forbes and Execomp firms		
	Mean	Median	St. dev.	Mean	Median	St. dev.
Total Assets	5734.93	1653.92	13336.17	3617.30	960.63	9211.35
Total Sales	5479.37	1774.59	11592.51	3498.22	1134.83	7735.66
Market Value	6101.35	1477.03	16033.96	3958.05	893.12	11398.05
Investment	0.31	0.22	0.32	0.32	0.23	0.34
Average Tobin's Q	1.92	1.45	1.48	1.95	1.47	1.51
Cash Flow	0.52	0.34	1.24	0.53	0.35	1.47
N of announced acquisitions	1.08	1.00	1.58	0.95	0.00	1.44
N of effective acquisitions	0.79	0.00	1.34	0.69	0.00	1.22
Leverage	0.36	0.34	0.27	0.33	0.32	0.27
Interest coverage	32.97	7.91	130.65	47.29	8.20	210.05
Cash holdings	1.32	0.19	3.99	1.56	0.22	4.78
Dividend/earnings	0.10	0.08	0.12	0.09	0.07	0.12
N of diversifying acquisitions	0.42	0.00	0.91	0.35	0.00	0.80
R&D	0.06	0.03	0.08	0.06	0.03	0.09
Advertising	0.05	0.03	0.06	0.05	0.03	0.06
SG&A	0.24	0.20	0.17	0.23	0.19	0.18
Return on assets	0.06	0.06	0.11	0.06	0.06	0.12
Operating return on assets	0.11	0.11	0.11	0.11	0.11	0.13
Sample size		14930			32403	

a. "Manager-firm matched sample" includes: (1) firm-year observations for firms that have at least one manager observed in multiple firms with at least a three-year stay at each firm; (2) observations for these firms in the years in which they have other managers that we do not observe in multiple firms.
"Forbes and Execomp firms" includes all firms in Forbes and Execomp data over period 1969 to 2006. Both samples exclude firms in the financial service industry and utility industry.
b. Definition and construction of the variables are reported in the appendix.
c. All variables are winsorized at 1% tail.
d. Sample size is the maximum number of observations; not all variables are available for each year and firm.

Table 2. Summary Statistics of Different Accrual Variables

Panel A: Distribution Statistics

	Mean	Std. Dev.	Q1	Median	Q3
Total accruals	-0.043	0.071	-0.08	-0.045	-0.009
Abnormal accruals	-0.003	0.055	-0.028	-0.002	0.023
Abs. Total accruals	0.065	0.055	0.028	0.054	0.087
Abs. abnormal accruals	0.038	0.041	0.011	0.026	0.051

Panel B: Correlation Analysis

	Total accruals	Abnormal accruals (MJ)	Abs. total accruals	Abs. abnormal accruals (MJ)
Total accruals		0.697	-0.391	0.032
Abnormal accruals	0.659		-0.293	-0.053
Abs. total accruals	-0.688	-0.400		0.506
Abs. abnormal accruals	0.002	-0.071	0.278	

a. Sample is the manager-firm matched panel data set as described in subsection 3.1. Definition and construction of the variables are described in subsection 3.3 and also reported in the appendix.
b. All variables are winsorized at 1% tail.
c. In Panel B, Pearson (Spearson) correlations are shown above (below) the diagonal.

Table 3. Manager Fixed Effects on Accounting Accruals

Panel A: Signed Accounting Accruals

	F-tests on fixed effects for				
	CEOs	*CFOs*	*Others*	*N*	*Adj. R^2*
Total accruals				11380	.105
Total accruals	36578.89 (<0.001, 166)			11380	.116
Total accruals	1.4e+05 (<0.001, 189)	30699.15 (<0.001, 107)	5.8e+05 (<0.001, 264)	11380	.138
Abnormal accruals				11380	.049
Abnormal accruals	1.4e+05 (<0.001, 166)			11380	.050
Abnormal accruals	1.1e+05 (<0.001, 189)	13182.81 (<0.001, 107)	76583.04 (<0.001, 264)	11380	.064

Panel B: Unsigned Accounting Accruals

	F-tests on fixed effects for				
	CEOs	*CFOs*	*Others*	*N*	*Adj. R^2*
Abs. total accruals				11380	.076
Abs. total accruals	88656.59 (<0.001, 168)			11380	.087
Abs. total accruals	44124.56 (<0.001, 191)	13475.64 (<0.001, 109)	1.6e+05 (<0.001, 266)	11380	.114
Abs. abnormal accruals				11380	.059
Abs. abnormal accruals	20892.65 (<0.001, 168)			11380	.067
Abs. abnormal accruals	1.4e+05 (<0.001, 191)	3262.99 (<0.001, 109)	39736.19 (<0.001, 266)	11380	.081

Panel C: Size Distribution of Manager Fixed Effects

	Mean	Std. dev.	25^{th} pctl.	Median	75^{th} pctl.
Total accruals	-0.001	0.049	-0.025	0.000	0.024
Abnormal accruals	-0.001	0.038	-0.018	0.002	0.019
Abs. total accruals	-0.001	0.042	-0.018	-0.000	0.019
Abs. abnormal accruals	-0.000	0.028	-0.013	-0.001	0.014

a. Sample is the manager-firm matched panel data set as described in subsection 3.1. Definition and construction of the variables are described in subsection 3.3 and also reported in the appendix.

b. Reported in the table are the results from fixed effects panel regressions, where standard errors are clustered at the firm level. For each dependent variable (as reported in column 1), the fixed effects included are row 1: firm and year fixed effects; row 2: firm, year, and CEO fixed effects; row 3: firm, year, and all manager fixed effects. Included in all regressions are leverage, B/M, logarithm of market value and ROA. Also included in the unsigned accruals regressions are standard deviation of cash flows from operations and the standard deviation of sales.

c. Reported in Panel A and B are the *F*-tests for the joint significance of the CEO fixed effects (column 2), CFO fixed effects (column 3), and other executives fixed effects (column 4). For each F-test we report the value of F-statistic, the p-value, and the number of constraints. The adjusted R^2 is calculated based on the within R^2 from the command xtreg, fe in Stata.

d. Reported in Panel C are the size distributions of fixed effects from the regressions. Column 1 reports the mean fixed effect for each accruals measure. Column 2 reports and standard deviation of the fixed effects. Column 3, 4 and 5 report the fixed effects at the 25^{th} percentile, 50^{th} percentile, and 75^{th} percentile of the distribution, respectively.

Table 4. Manager Fixed Effects on Firm Policy Variables

Panel A: Investment Policy

	F-tests on fixed effects for				
	CEOs	*CFOs*	*Others*	*N*	*Adj. R2*
Investment				13332	0.234
Investment	20803.69 (<0.001, 196)			13332	0.254
Investment	1.4e+06 (<0.001, 225)	51123.55 (<0.001, 131)	3.3e+06 (<0.001, 319)	13332	0.310
Inv to Q sensitivity				13332	0.372
Inv to Q sensitivity	7.9e+08 (<0.001, 199)			13332	0.400
Inv to Q sensitivity	1.3e+08 (<0.001, 232)	2.5e+06 (<0.001, 133)	8.2e+06 (<0.001, 317)	13332	0.453
Inv to CF sensitivity				13332	0.416
Inv to CF sensitivity	6.5e+06 (<0.001, 199)			13332	0.442
Inv to CF sensitivity	2.1e+08 (<0.001, 228)	23039.22 (<0.001, 98)	5.9e+05 (<0.001, 240)	13332	0.522
N of announced acquisitions				13055	0.072
N of announced acquisitions	5154.08 (<0.001, 203)			13055	0.100
N of announced acquisitions	4278.04 (<0.001, 233)	18860.33 (<0.001, 140)	1.5e+05 (<0.001, 350)	13055	0.147
N of effective acquisitions				13048	0.048
N of effective acquisitions	20452.95 (<0.001, 203)			13048	0.073
N of effective acquisitions	8908.90 (<0.001, 233)	5820.13 (<0.001, 140)	2.5e+08 (<0.001, 250)	13048	0.133

Panel B: Financial Policy

	F-tests on fixed effects for				
	CEOs	*CFOs*	*Others*	*N*	*Adj. R2*
Leverage				14688	0.116
Leverage	2.3e+05 (<0.001, 217)			14688	0.160
Leverage	6.7e+05 (<0.001, 241)	5201.84 (<0.001, 139)	2.2e+05 (<0.001, 351)	14688	0.226
Interest coverage				13704	0.037
Interest coverage	4.7e+05 (<0.001, 200)			13704	0.045
Interest coverage	1.1e+06 (<0.001, 227)	1.8e+05 (<0.001, 133)	1.8e+05 (<0.001, 328)	13704	0.081
Cash holding				14741	0.121
Cash holding	1.0e+06 (<0.001, 217)			14741	0.164
Cash holding	3.2e+06 (<0.001, 241)	2594.26 (<0.001, 139)	5.0e+07 (<0.001, 352)	14741	0.273
Dividends/earnings				14718	0.029
Dividends/earnings	1.8e+05 (<0.001, 217)			14718	0.064
Dividends/earnings	30854.09 (<0.001, 241)	2157.51 (<0.001, 139)	2.1e+05 (<0.001, 352)	14718	0.121

Table 4. Manager Fixed Effects on Firm Policy Variables

Panel C: Organizational Strategy

	F-tests on fixed effects for				
	CEOs	*CFOs*	*Others*	*N*	*Adj. R2*
N of diversifying acquisitions				12988	0.185
N of diversifying acquisitions	5536.71 (<0.001, 205)			12988	0.210
N of diversifying acquisitions	17956.59 (<0.001, 234)	1188.35 (<0.001, 139)	70833.88 (<0.001, 349)	12988	0.241
R & D				9733	0.091
R & D	7.9e+06 (<0.001, 146)			9733	0.149
R & D	1.6e+08 (<0.001, 173)	41155.86 (<0.001, 102)	5.8e+06 (<0.001, 223)	9733	0.214
Advertising				5645	0.107
Advertising	2.1e+05 (<0.001, 87)			5645	0.139
Advertising	3.9e+07 (<0.001, 101)	75435.38 (<0.001, 60)	4.6e+05 (<0.001, 119)	5645	0.237
SG & A				13462	0.227
SG & A	5.9e+06 (<0.001, 196)			13462	0.286
SG & A	4.1e+05 (<0.001, 219)	45172.65 (<0.001, 133)	1.7e+06 (<0.001, 315)	13462	0.367

Panel D: Size Distribution of Manager Fixed Effects

	Mean	Std. dev.	25th pctl.	Median	75th pctl.
Investment	0.002	0.22	-0.074	-0.004	0.081
Inv to Q sensitivity	0.034	1.308	-0.158	-0.007	0.151
Inv to CF sensitivity	-0.126	1.704	-0.291	-0.006	0.256
N of announced acquisitions	0.06	1.073	-0.496	-0.016	0.556
N of effective acquisitions	0.052	0.944	-0.421	0.001	0.438
Leverage	-0.000	0.162	-0.089	-0.004	0.083
Interest coverage	0.018	71.243	-10.335	0.737	10.088
Cash holding	-0.096	2.628	-0.416	0.010	0.357
Dividends/earnings	-0.001	0.071	-0.028	-0.002	0.023
N of diversifying acquisitions	0.026	0.519	-0.244	-0.026	0.235
R & D	-0.004	0.048	-0.016	-0.003	0.012
Advertising	0.002	0.029	-0.009	0.001	0.011
SG & A	-0.002	0.054	-0.024	-0.003	0.020

a. Sample is the manager-firm matched panel data set as described in subsection 3.1. Definition and construction of the variables are reported in the appendix.

b. Reported in the table are the results from fixed effects panel regressions, where standard errors are clustered at the firm level. For each dependent variable (as reported in column 1), the fixed effects included are row 1: firm and year fixed effects; row 2: firm, year, and CEO fixed effects; row 3: firm, year, and all manager fixed effects. In Panel A, included in the "Investment to Q" and "Investment to cash flow" regressions are interactions of these fixed effects with lagged Tobin's Q and cash flow, respectively. Also the "Investment," "Investment to Q," and "Investment to cash flow" regressions include lagged logarithm of total assets, lagged Tobin's Q, and cash flow. The "Number of Acquisitions" and "Number of effective Acquisitions" regressions

include lagged logarithm of total assets and return on assets. In Panel B, each regression contains return on assets, cash flow, and the lagged logarithm of total assets. In Panel C, each regression contains the logarithm of total assets, return on assets, and cash flow. The "N of diversifying acquisitions" regressions also include a dummy variable for whether the firm undertook any acquisition in that year.

c. In Panel A through C, also reported in the table are the *F*-tests for the joint significance of the CEO fixed effects (column 2), CFO fixed effects (column 3), and other executives fixed effects (column 4). For each F-test we report the value of F-statistic, the p-value, and the number of constraints. The adjusted R^2 is calculated based on the within R^2 from the command xtreg, fe in Stata.

d. Reported in Panel D are the size distributions of fixed effects from the regressions. Column 1 reports the mean fixed effect for each policy variable. Column 2 reports and standard deviation of the fixed effects. Column 3, 4 and 5 report the fixed effects at the 25^{th} percentile, 50^{th} percentile, and 75^{th} percentile of the distribution, respectively.

Table 5. Spearman Correlation Between Manager Fixed Effects

	Total accruals	Abnormal accruals	Abs. total accruals	Abs. abnormal accruals
Investment	0.04	**-0.10**	**0.15**	**0.07**
	(0.33)	**(0.01)**	**(0.00)**	**(0.07)**
Inv to Q sensitivity	-0.01	**-0.16**	-0.02	**-0.07**
	(0.76)	(**<.0001**)	(0.54)	**(0.06)**
Inv to CF sensitivity	0.00	0.06	**-0.09**	-0.04
	(0.96)	(0.13)	(**0.03**)	(0.32)
N of announced acquisitions	-0.01	-0.02	0.05	**0.07**
	(0.78)	(0.57)	(0.20)	(**0.08**)
N of effective acquisitions	-0.01	-0.05	0.06	0.05
	(0.81)	(0.15)	(0.11)	(0.23)
Leverage	0.01	-0.03	**-0.08**	**-0.11**
	(0.74)	(0.36)	**(0.04)**	**(0.00)**
Interest coverage	0.00	0.01	**0.08**	**0.11**
	(0.95)	(0.85)	**(0.04)**	**(0.00)**
Cash holding	0.02	-0.03	0.01	-0.01
	(0.59)	(0.40)	(0.78)	(0.73)
Dividends/earnings	-0.06	-0.05	0.00	0.00
	(0.11)	(0.17)	(0.98)	(0.99)
N of diversifying acquisitions	0.03	-0.04	0.01	0.04
	(0.36)	(0.27)	(0.89)	(0.24)
R & D	**-0.07**	0.02	**0.08**	0.01
	(0.10)	(0.60)	**(0.05)**	(0.76)
Advertising	-0.02	**-0.15**	**0.15**	0.06
	(0.69)	**(0.00)**	**(0.00)**	(0.28)
SG & A	**-0.07**	-0.01	**0.10**	-0.01
	(0.06)	(0.78)	**(0.01)**	(0.72)

a. Sample is the manager-firm matched panel data set as described in subsection 3.1. Definition and construction of the variables are reported in the appendix.
b. Reported in the table are the spearman correlation between manager fixed effects on accrual variables and manager fixed effects on firm policy variables. P-values of the correlation are in parentheses. The fixed effects in this table are retrieved from the regressions reported in Table 3 and 4 (equation 3 for each variable.)
c. Correlations significant at 10 percent level or better are indicated by bold numbers.

Table 6. Regression of Manager Fixed Effects on Accruals

	Total accruals		Abnormal accruals		Abs total accruals		Abs abnormal accruals	
	Parameter Estimate	*Pr > |t|*	*Parameter Estimate*	*Pr > |t|*	*Parameter Estimate*	*Pr > |t|*	*Parameter Estimate*	*Pr > |t|*
Investment	0.002	0.910	**-0.026**	**0.025**	**0.043**	**0.001**	**0.023**	**0.013**
Inv to Q sensitivity	**0.016**	**0.001**	0.005	0.218	**-0.015**	**0.000**	**-0.010**	**0.001**
Inv to CF sensitivity	0.001	0.762	-0.001	0.598	-0.002	0.498	0.001	0.720
N of acquisitions	**-0.011**	**0.002**	**-0.006**	**0.017**	**0.006**	**0.026**	0.003	0.128
Leverage	-0.010	0.639	-0.007	0.684	-0.006	0.734	**-0.029**	**0.026**
Interest coverage	0.000	0.137	0.000	0.637	0.000	0.831	**0.000**	**0.044**
Cash holdings	**0.002**	**0.084**	-0.001	0.434	0.000	0.695	**-0.001**	**0.083**
Dividends/earnings	-0.029	0.552	0.005	0.894	-0.065	0.113	-0.046	0.122
R&D	**-0.110**	**0.053**	0.026	0.557	0.035	0.466	0.000	0.992
Advertising	-0.016	0.861	**-0.175**	**0.015**	**0.131**	**0.095**	-0.015	0.789
SG&A	**-0.105**	**0.036**	0.007	0.844	**0.071**	**0.090**	-0.033	0.275
R^2	0.13		0.08		0.14		0.10	

a. Sample is the manager-firm matched panel data set as described in subsection 3.1. Definition and construction of the variables are reported in the appendix.
b. Reported in the table are the results of regressions, where the manager fixed effects on different accrual variables are dependent variables and manager fixed effects on different firm policy variables are independent variables. The fixed effects in this table are retrieved from the regressions reported in Table 3 and 4 (equation 3 for each variable.)
c. "N of acquisitions" in this table is "N of announced acquisitions".
d. Estimated Parameters significant at 10 percent level or better are indicated by bold numbers.

Table 7. Regression of Sub-group Manager Fixed Effects on Accruals

	Total accruals			Abnormal accruals			Abs total accruals			Abs abnormal accruals		
	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
Investment	0.014			**-0.022**			**0.035**			**0.012**		
Inv to Q sensitivity	-0.002			-0.002			-0.000			**-0.004**		
Inv to CF sensitivity	-0.000			0.001			**-0.002**			-0.000		
N of acquisitions	-0.003			-0.000			0.002			**0.002**		
Leverage		0.001			-0.010			**-0.017**			**-0.020**	
Interest coverage		0.000			0.000			**0.000**			**0.000**	
Cash holdings		0.001			-0.001			0.000			0.000	
Dividends/earnings		-0.044			-0.026			-0.008			-0.005	
N. of Diversifying Acquisition			-0.002			-0.002			0.003			0.001
R&D			**-0.139**			-0.015			0.040			0.004
Advertising			-0.008			**-0.186**			**0.191**			0.016
SG&A			**-0.107**			0.002			**0.076**			-0.028
R^2	0.006	0.006	0.046	0.023	0.008	0.027	0.039	0.010	0.044	0.026	0.024	0.003
Vuong Test Z-statistic (p-value)	H_0: Model(1) = Model(2) -0.42 (0.674)			H_0: Model(1) = Model(2) **-1.69 (0.092)**			H_0: Model(1) = Model(2) -1.56 (0.118)			H_0: Model(1) = Model(2) -0.79 (0.430)		
	H_0: Model(1) = Model(3) **3.87 (0.001)**			H_0: Model(1) = Model(3) **3.93(0.001)**			H_0: Model(1) = Model(3) **3.10 (0.002)**			H_0: Model(1) = Model(3) **2.88 (0.004)**		
	H_0: Model(2) = Model(3) **4.34 (<0.001)**			H_0: Model(2) = Model(3) **4.91(<0.001)**			H_0: Model(2) = Model(3) **4.06((<0.001)**			H_0: Model(2) = Model(3) **2.42((0.016)**		

a. Sample is the manager-firm matched panel data set as described in subsection 3.1. Definition and construction of the variables are reported in the appendix.
b. Reported in the table are the results of regressions, where the manager fixed effects on different accrual variables are dependent variables and manager fixed effects on different firm policy variables are independent variables. The fixed effects in this table are retrieved from the regressions reported in Table 3 and 4 (equation 3 for each variable.)
c. "N of acquisitions" in this table is "N of announced acquisitions".
d. Estimated Parameters significant at 10 percent level or better are indicated by bold numbers.

Table 8. Manager Fixed Effects on Accounting Accruals after Controlling for Manager Firm Policy Decisions

Panel A: Signed Accounting Accruals

	F-tests on fixed effects for				
	CEOs	*CFOs*	*Others*	*N*	*Adj. R^2*
Total accruals				11380	.117
Total accruals	1.2e+07 (<0.001, 232)	343.22 (<0.001, 123)	2.2e+06 (<0.001, 309)	11380	.140
Abnormal accruals				11380	.053
Abnormal accruals	9.8e+05 (<0.001, 232)	93.79 (<0.001, 124)	5.1e+07 (<0.001, 309)	11380	.066

Panel B: Unsigned Accounting Accruals

	F-tests on fixed effects for				
	CEOs	*CFOs*	*Others*	*N*	*Adj. R^2*
Abs. total accruals				11380	.083
Abs. total accruals	4.0e+06 (<0.001, 234)	307.96 (<0.001, 123)	1.9e+05 (<0.001, 311)	11380	.115
Abs. abnormal accruals				11380	.061
Abs. abnormal accruals	8.9e+05 (<0.001, 233)	263.61 (<0.001, 125)	4.3e+05 (<0.001, 310)	11380	.081

Panel C: Size Distribution of Manager Fixed Effects

	Mean	Std. dev.	25^{th} pctl.	Median	75^{th} pctl.
Total accruals	-0.002	0.064	-0.033	0.000	0.030
Abnormal accruals	-0.001	0.050	-0.026	0.001	0.026
Abs. total accruals	-0.002	0.052	-0.027	-0.002	0.026
Abs. abnormal accruals	-0.001	0.035	-0.017	-0.001	0.016

a. Sample is the manager-firm matched panel data set as described in subsection 3.1. Definition and construction of the variables are described in subsection 3.3 and also reported in the appendix.
b. Reported in the table are the results from fixed effects panel regressions, where standard errors are clustered at the firm level. For each dependent variable (as reported in column 1), the fixed effects included are row 1: firm and year fixed effects; row 2: firm, year, and CEO fixed effects; row 3: firm, year, and all manager fixed effects. Included in all regressions are leverage, B/M, logarithm of market value, ROA, and manager fixed effects on firm policies estimated in Table 4. Also included in the unsigned accruals regressions are standard deviation of cash flows from operations and the standard deviation of sales.
c. Reported in Panel A and B are the *F*-tests for the joint significance of the CEO fixed effects (column 2), CFO fixed effects (column 3), and other executives fixed effects (column 4). For each *F*-test we report the value of F-statistic, the p-value, and the number of constraints. The adjusted R^2 is calculated based on the within R^2 from the command xtreg, fe in Stata.
d. Reported in Panel C are the size distributions of fixed effects from the regressions. Column 1 reports the mean fixed effect for each accruals measure. Column 2 reports and standard deviation of the fixed effects. Column 3, 4 and 5 report the fixed effects at the 25th percentile, 50th percentile, and 75th percentile of the distribution, respectively.

Table 9. Comparison of CEO and CFO Fixed Effects on Accruals

Panel A: Unsigned CEO and CFO Fixed Effects on Accruals					
	CEO	CFO	Difference Between Means	T-test Result t value	T-test Result Pr > |t|
Total accruals	0.033	0.036	-0.003	-0.94	0.349
Abnormal accruals	0.025	0.027	-0.002	-0.71	0.477
Abs. total accruals	0.027	0.031	-0.004	-1.13	0.258
Abs. abnormal accruals	0.019	0.020	-0.002	-0.66	0.511
Panel B: Signed CEO and CFO Fixed Effects on Accruals					
	CEO	CFO	Difference Between Means	T-test Result t value	T-test Result Pr > |t|
Total accruals	-0.006	0.000	-0.006	-1.08	0.281
Abnormal accruals	-0.003	0.003	-0.006	-1.45	0.147
Abs. total accruals	0.000	-0.008	0.008	**1.82**	**0.070**
Abs. abnormal accruals	0.002	-0.004	0.006	**1.8**	**0.073**

a. Sample is the manager-firm matched panel data set as described in subsection 3.1. Definition and construction of the variables are reported in the appendix.
b. Reported in this table is the comparison of CEO fixed effects on accrual variables and CFO fixed effects on accrual variables. Panel A compares absolute value of fixed effects of the two positions; Panel B compares signed fixed effects of the two positions. Column 1 is the mean of CEO fixed effects. Column 2 is the mean of CFO fixed effects. Column 3 is the difference between column 1 and 2. Column 4 and 5 are the results of t-tests to compare column 1 and 2.
c. T-tests are the usual pooled t-test because the "Equality of Variances" test results show that the assumption of equal variances is reasonable.
d. T-statistics significant at the 10 percent level or better are indicated by bold numbers.