The Market for Comeback CEOs

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Keywords: CEO turnover, boomerang CEO, managerial effects.

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Abstract

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Introduction

Chief executive officers (CEOs) are central figures of corporations, making decisions that have major valuation consequences for their firm's shareholders. A considerable amount of attention has been focused on the causes and consequences of CEO turnover. A successful turnover must identify a strong candidate who will continue to make value maximizing decisions or one who can replace a poorly performing CEO.

Parrino (1997) shows that the availability of strong CEO candidates is an important consideration in the decision to replace a poor CEO. However, the pool of strong CEO candidates is not necessarily large. Several recent papers have argued that the supply side of the market for CEOs is relatively scarce (Himmelberg and Hubbard (2000), Gabaix and Landier (2006), and Rajgopal, Shevlin, and Zamora (2006)). A group of potential candidates for the position of CEO that has largely been ignored in the CEO turnover literature consists of former CEOs who have stayed connected with their firms as board members. In a sample of large US firms, about 37% of former CEOs remain on the board of directors after retirement until the turnover of their successor. Thus, they represent an available alternative to other inside and outside candidates and could be reappointed when the supply of strong CEO candidates is scarce. However, continued involvement in the firm by a former CEO who sits on the board also can represent a risk for a company. An entrenched and powerful former CEO who still sits on the board could seek to regain his old position, disrupting a firm's succession planning and potentially reducing shareholder value.

We examine the circumstances under which firms rehire their CEO to determine if the decision is consistent with shareholder value maximization – firms hire the best available candidate – or whether it is consistent with a powerful and entrenched former CEO imposing his desire to return to the position of CEO. If the labor market for CEOs is indeed characterized by

scarcity of supply, it may be valuable to retain a former executive on the board of directors to have a potential CEO candidate available (e.g., Vancil (1987)). Although presumably it was the optimal decision when the former CEO retired in the first place, he may be the best available alternative given the circumstances a few years later. The studies of Parrino (1997), Huson, Malatesta, and Parrino (2004), and Naveen (2006) suggest that there are significant cross-sectional differences in firms that allow the former CEO to remain on the board and eventually rehire their former CEO and those who do not. Firm and industry characteristics that relate to the degree of required firm-specific capital and to the scarcity of the CEO labor market should load strongly and significantly positive in the rehiring decision. Additionally, firm performance under the current CEO should impact the decision to rehire a former CEO, because poor firm performance may trigger the need for an unanticipated quick turnover without adequate time for succession planning. Finally, if the decision to rehire a former CEO is consistent with shareholder value maximization, one would expect a positive stock price reaction at the rehiring announcement and for firm performance to improve after the rehiring.

Alternatively, if the principal reason to rehire a former CEO is that the former CEO is so entrenched that he can force the firm to hire him back, we should find that person-specific characteristics are more important in the rehiring decision than firm-specific characteristics. Managers get more entrenched the longer they are employed by the firm or the longer they stay in office. Also, a more entrenched former CEO would have a greater influence on the board, especially if he is chairman of the board or a founder of the firm, while decreasing the effectiveness of the board's monitoring function. In addition, it is likely that his power would erode the longer he is retired from the CEO position. Thus, under the entrenchment hypothesis, the prior tenure of the former CEO, the chairman status or founder status of the former CEO and

other proxies for entrenchment and power, such as time spent in retirement, would be related to the decision to rehire a former CEO. Finally, if entrenchment explains the decision to rehire a former CEO, we would expect a negative stock price reaction at the announcement of the rehiring and for firm performance not to improve in the following years.

Using a sample of publicly traded US firms for the period from 1993 to 2005 in which the former CEO remains on the board of directors after retirement until the turnover of the current CEO and therefore represents a potential CEO candidate, we find that 24% of firms rehire their former CEO. The typical rehired CEO comes back after two years in retirement, is 61 years old at the time of his reappointment, and stays on as CEO for another two and a half years.

We find that the decision to rehire former CEOs is related to the past performance of both the former and current CEO. Former CEOs are more likely to be rehired if they had a high stock market performance during their first tenure and if their replacement did particularly poorly. Firms also are more likely to rehire their former CEOs the larger is the percentage of total institutional ownership and the more intangible are the firm's assets. Manager-specific characteristics play a significant role. The probability of a firm rehiring a former CEO is positively related to the founder and chairman status of the CEO and to his share ownership.

The market reacts negatively to the announcement that a firm has rehired its former CEO with both industry- and market-adjusted returns of about minus four percent. In contrast, there is no significant announcement effect for other newly hired CEOs from the control group. While the negative announcement returns suggest that stock market participants expect no performance improvement after a former CEO is rehired, a clear-cut interpretation of the economically significantly negative announcement return is more difficult. As pointed out by both Denis and

Denis (1995) and Warner, Watts, and Wruck (1988) there could be at least two different components that form the cumulative abnormal announcement returns: an information component and a real component. The information component of the abnormal return is generated by the signal that the turnover announcement conveys about the worse than expected management performance and quality. The real component of the abnormal return is generated by the market's assessment of the ability of the new CEO to improve performance. These two components potentially work in opposite directions.

We also study the long-term stock market performance and the time-series changes in accounting performance and growth measures after the rehiring decision and compare it with those of the control group to shed additional light on the entrenchment and shareholder value maximization hypotheses. If the prior CEO comes back from retirement because he is entrenched and values private benefits of control, we expect his firm to do worse than the control group firms that hire a new CEO. We find no evidence that boomerang CEO led firms perform worse than control group firms in the two years following the turnover and some weak evidence that boomerang-CEO led firms do in fact perform better. These results are inconsistent with the entrenchment hypothesis.

Overall, our evidence is consistent with firms hiring the best available CEO, given the circumstances. In firms with rapidly deteriorating performance and the need to change CEOs quickly, former CEOs who still have an emotional or financial stake in their firm are willing to come back to run the firm again. While the market reacts negatively to the announcement of the rehiring decision, we do not find evidence that former CEOs underperform relative to a control group once they are rehired.

The paper is organized as follows. Section 2 describes the sample. Section 3 presents the relevant literature and testable hypotheses. The empirical results are discussed in Section 4. Section 5 discusses the succession planning and section 6 concludes.

2. Data and Sample description

We obtain our initial sample of CEO turnovers from the ExecuComp database. We require the identity of the previous CEO to verify whether he continues on the board of directors and therefore focus on all firms in Execucomp with two or more turnovers. We remove all CEOs that do not have a tenure of at least three months. These two requirements leave us with 737 turnovers in the version of the ExecuComp database we use. We match the names of the prior CEOs to lists of directors of the firms obtained from the monthly CompactDisclosure compact discs and verify whether the prior CEO was a nominee for a director position at the proxy date preceding the turnover of his successor.[1] The prior CEO is still sitting on the board of directors at the turnover of his successor in a significant fraction of 37.3% (275/737) of the turnover events. These 275 observations in which the previous CEO was available for rehire constitute our final sample. Our sample construction criterion implicitly assumes that the retired former CEO who continues on the board of his old firm does not take a CEO or managerial position elsewhere, and is truly available. Theoretically, a former CEO could remain on the board of his own firm, but move on to become an executive at a different firm. However, even the unconditional probability of stepping down as a CEO and becoming an executive at a

[1] For firms in which we are unable to match CEOs to the director list from CompactDisclosure, we manually check the proxy statements to identify whether the former CEO was sitting on the board of directors at the turnover of his successor.

different firm is very low. Gibbons and Murphy (1992) estimate it to be 2.2%, and Brickley, Linck, and Coles (1999) estimate it to be 3.2%.[2]

Next, we use a special reporting convention relating to two fields of the ExecuComp database, BECAMECE and COMMENT, to identify rehired CEOs. The field BECAMECE contains the date of the appointment of a manager as chief executive officer and the field COMMENT contains additional information about the executive or his employment contract that cannot be easily tabulated. ExecuComp only stores the latest appointment date of a CEO to a firm, and describes all previous appointments in the field COMMENT. In the ExecuComp database, it is therefore possible that the appointment date, BECAMECE, contains a date that is after the fiscal-year end for which ExecuComp has collected compensation data. For example, the 1994 compensation entry for Paul Allaire of Xerox states that he was CEO in 1994, but that his appointment started on 05/11/2000. However, the entry in the field COMMENT states that: "*Also served as CEO 8/1/90 to 8/31/99." We search the COMMENT field for any mention of the combination of *served, also,* and *CEO,* and obtain an initial list of 75 firms, for which we manually check the employment histories of their CEOs.[3]

One obvious concern regarding our study design is whether the rehired CEO merely comes back as an interim CEO while the firm is conducting an executive search, or whether he is truly coming back to run the firm. We have addressed this issue using two different approaches. The first approach is to impose a requirement on the minimum length of the second tenure of the

[2] Note that we are potentially understating the pool of available former CEOs, as a retired CEO may choose to leave the board of directors after retirement, yet still be able and willing to come back to his previous firm. However, to include these CEOs in our study, we would have to make more subjective assessments about availability (e.g., is a former CEO who stepped down due to health issues available or not?).

[3] It is likely that we understate the true occurrence of rehired CEOs. For example, our initial search does not identify Ken Lay as a repeat CEO because Enron went bankrupt prior to filing another proxy statement identifying the change of CEOs. While we were collecting information from proxy statements for the control sample, we identified ten additional boomerang CEOs. We chose not to add them to our sample, because it may bias our sample towards better known / more successful rehired CEOs.

rehired CEO, and the second approach is to search all announcements and the first annual report after the reappointment for the words interim or temporary in connection with the rehired CEO. The weakness of the first approach is that it imposes an arbitrary minimum tenure. The weakness of the second approach is that a CEO may originally intend to stay as an interim CEO, but then continues in office for many years. In all reported results, we have implemented the minimum tenure requirement, although our results do not change when we use the "interim" criterion to clean our sample.

We require a second tenure of at least six months for a rehired CEO to be included in our sample. Changing the minimum tenure requirement to three months or twelve months does not change our results. We also have imposed a minimum requirement of six months for the boomerang CEO's first tenure to exclude cases in which he only was an interim CEO during his first tenure.[4] After imposing the above filters, we count 65 boomerang CEOs among our 275 sample firms with previous CEOs on the board at turnover events.

Table 1, Panel A tabulates the number of turnovers to boomerang CEOs in the time series, as well as the number of turnovers in the control group. As a comparison, we also tabulate in column 3 all other turnovers in ExecuComp for which we know the prior CEO and which fulfill the minimum tenure requirements. From 1996 to 2003, we observe about seven rehired CEOs each year, without an obvious time trend. Over the same time period, there are about 20 successions each year where the prior CEO was on the board of directors, but did not come back as CEO, and approximately 50 other successions in the ExecuComp database for which we know the former CEO. Overall, in 23.6% (65 / (65 + 210)) of all successions where the prior CEO is still available he is rehired. The unconditional probability to rehire the former

[4] For example, Ronald McDougall is identified by our initial search as a rehired CEO for Brinker International, but since he was CEO during his first tenure for only three months to temporarily replace Norman Brinker after a polo accident, he is excluded from the final sample.

CEO is 8.8% (65/737). These numbers appear to be higher than commonly thought (e.g., Anonymous (2001)).

[Insert table 1 here]

Table 1, panel B lists the industries with the most occurrences of rehired CEOs. Several of the industries mentioned such as computers, software, and electronic equipment have little tangible assets, which supports the notion that human capital is particularly important, and that managers thus may play a particularly large role for firm success.

We will frequently refer to three groups of CEOs when describing our empirical tests. The three groups are the prior CEO, current CEO, and successor CEO. For the sample of rehired CEOs, the prior CEO and the successor CEO are identical: it is the rehired or boomerang CEO. For the control sample, the prior, current, and successor CEO are three different individuals. The prior CEO is the CEO that is in office before the current CEO, who is in turn succeeded by the successor CEO. Table 2 reports CEO characteristics for the rehired CEO sample and the control sample for the three groups of CEOs.

[Insert table 2 here]

For the rehired CEO sample, the prior CEO is a founder of the company 43% of the time, has an average first tenure of 11.2 years, and owns 8.3% of the firm's stock. These numbers are statistically greater than those for the prior CEO in the control sample. In the control sample, the

prior CEO is a founder 23% of the time, has an average tenure of 8.5 years and owns 2.9% of the firm's outstanding stock at retirement.

There is little difference in age for the rehired sample and control sample CEOs at the time of the current CEO's turnover (61.2 years vs. 61.6 years). The rehired CEOs are more often chairman of the board than the CEOs of the control group (83.1% vs. 61.8%).

The average tenure of the current CEO is significantly shorter for the rehired CEO sample, although the median tenure is not. There is no statistical difference in the classification of the current CEO as an insider or outsider between the two groups – most current CEOs were internal candidates. Finally, the average tenure of the rehired CEO is 2.76 years. While this number suggests that the rehired CEO stays on average for more than two and a half years, his tenure is significantly shorter than the tenure of the successor CEO in the control group.[5]

3. Relevant Literature and Testable Hypotheses

In this section, we discuss two potential hypotheses for why a firm might rehire its former CEO who sits on the board and the variables that we use to test these hypotheses.

Under the value-maximization hypothesis, the former CEO who sits on the board is rehired because he represents the best available candidate. Under the entrenchment hypothesis, the former CEO who sits on the board is rehired because he is a powerful CEO who is able to influence the board to rehire him as CEO.

3.1 Value-maximization hypothesis

Several recent papers have argued that the supply side of the market for CEOs is relatively scarce (Himmelberg and Hubbard (2000), Gabaix and Landier (2006), and Rajgopal, Shevlin, and Zamora (2006)). Parrino (1997) shows that the availability of a strong CEO

[5] Note that the tenure of the successor CEO is truncated to the right at the cutoff date December 2004.

candidate is an important consideration in the decision to replace a poorly performing CEO. If the labor market for CEOs is indeed characterized by scarcity of supply, it may be valuable to retain a former executive on the board of directors to have a potential CEO candidate available (e.g., Vancil (1987)).[6] Although presumably it was the optimal decision when the former CEO retired in the first place, he may be the best available alternative given the circumstances a few years later. For example, firm performance under the current CEO could impact the decision to rehire a former CEO, because poor firm performance may trigger the need for an unanticipated quick turnover without adequate time for succession planning. Prior literature on CEO turnover has documented that there is a negative association of CEO turnover with performance (see for example, Warner, Watts, and Wruck (1988), Huson, Parrino, and Starks (2001), Jenter and Kanaan (2006), and Kaplan and Minton (2006)). In the empirical tests of the likelihood of rehiring a former CEO, we control for the performance of the current CEO. We also create an indicator variable equal to 1 if the stock market performance of the current CEO is in the bottom quartile and zero otherwise. If CEOs are rehired only after extremely poor performance, we expect the likelihood of rehiring a CEO to be positively related to this indicator variable.

Olian (2003) suggests that former CEOs are sometimes brought back because the market knows and trusts them for their prior record. We measure the former CEO's track record using annualized market-adjusted (i.e., excess of the value-weighted market return) and industry-adjusted (i.e., excess of the respective value-weighted industry return based on the Fama-French 49 industry classification) stock performance during the former CEO's tenure and an indicator

[6] Vancil (1987) conjectures that a potential reason to retain the former CEO on the board is that he is available in case a successor does not perform well, but he does not provide empirical evidence for his conjecture. Brickley, Linck, and Coles (1999) study directorships of CEOs after they retire and find that the likelihood that a retired CEO serves on his own board two years after departure is positively related to stock performance while he was CEO. Brickley et al. do not address the question of why the former CEO stays on the board or whether he comes back out of retirement.

variable equal to 1 if the stock market performance of the former CEO is in the top quartile and zero otherwise.

The studies of Parrino (1997), Huson, Malatesta, and Parrino (2004), and Naveen (2006) suggest that there are significant cross-sectional differences in firms that allow the former CEO to remain on the board and eventually rehire their former CEO and those that do not. Parrino (1997) finds that poorly performing CEOs are easier to identify and less costly to replace in industries that consist of similar firms than in heterogeneous industries because of lower human capital-related costs of outside successions in homogenous industries. He finds that the likelihoods of turnover, forced turnover, and outside succession are all greater in industries that consist of similar firms than in heterogeneous industries. Thus, we would expect that the likelihood of a firm rehiring a former CEO would be higher in heterogeneous industries than in homogeneous industries if internal CEO candidates are in short supply. Following Parrino (1997), we measure industry homogeneity using the average partial correlation (controlling for market performance) between common stock returns and the industry return within the same 49 Fama-French industries. The higher the correlation measure, the more homogeneous is the industry.

According to Parrino (1997), we would expect the likelihood of internal hires to be greater in heterogeneous industries. Thus, for the firm to choose the former CEO over an internal hire, it must be the case that either the supply of CEO internal candidates has dried up or that there is a need for a quick turn around and no adequate time for succession planning. We include an indicator variable equal to one if the current CEO was an external hire, and zero otherwise. If potential internal candidates left after being passed over for the position of CEO, then the pool of potential internal candidates is small in the immediate years after the current

CEO's appointment regardless of whether the current CEO was an external or internal hire. To capture this effect, we include the years since the former CEO's retirement. One would expect the potential pool of candidates to be small after the current CEO takes office and to grow over time. Thus, we expect this variable to be negatively related to the likelihood of rehiring the former CEO.

Extending Parrino's (1997) arguments about human capital and firm specific capital industries to the firm level, we expect that the likelihood of rehiring a former CEO who sits on the board will be higher in firms with more firm specific capital. We measure firm specific capital using the ratio of research and development expenditures to sales, the ratio of net property, plant and equipment (PPE) to total assets, and a high tech industry variable following Loughran and Ritter (2004). Under the value maximization hypothesis, we expect the R&D ratio and the high tech dummy to be positively related to the likelihood of rehiring a former CEO and the net PPE ratio to be negatively related.

Naveen (2006) finds that a firm's propensity to groom an internal candidate – an heir apparent – for the CEO position is related to firm size, degree of diversification, and industry structure. Naveen uses Vancil's (1987) definition of succession planning (having a president distinct from CEO/chairman) and finds that succession planning is associated with a higher probability of inside succession and voluntary succession and a lower probability of forced succession. Firms with succession planning have a higher probability of retaining old CEOs as chairman, consistent with Vancil's argument. Given the results of Naveen (2006) and assuming a supply shortage of CEOs and potential need for a quick turn around, one would expect the likelihood of rehiring a CEO to be greater in firms with succession planning than in firms without succession planning. Following Naveen (2006), we control for firm size and the degree

of firm diversification. Firm size is measured as natural logarithm of total assets. The degree of firm diversification is measured as the number of business segments in different Fama-French industries.[7]

Parrino, Sias, and Starks (2003) find that changes in institutional ownership over two years preceding CEO turnover predict forced versus voluntary turnovers. They interpret this as evidence consistent with the hypothesis that institutional shareholders influence board decisions. Cronqvist and Fahlenbrach (2006) document that blockholders impact corporate decisions. To control for these effects, we include the proportions of total institutional ownership and block institutional ownership. If block holders and institutional owners increase the likelihood that the firm will act in the interest of shareholders and if the reappointment of the former CEO is a value maximizing decision, we would expect the likelihood of rehiring the former CEO to be positively related to institutional and block ownership.

We also control for the age of the prior CEO. We expect the availability of the prior CEO to be negatively related to the age of the prior CEO.

In summary, the rehire option is more valuable in heterogeneous industries, after poor performance, in focused firms, in industries in which firm specific capital is more important and where the internal pool of potential CEOs is smaller.

Huson, Malatesta, and Parrino (2004) find that turnover announcements are associated with significantly positive average abnormal stock returns, which are in turn significantly positively related to subsequent changes in accounting measures of performance. Accounting measures of performance deteriorate prior to CEO turnover and improve thereafter. The degree of improvement is positively related to the level of institution shareholdings, the presence of an

[7] We require business segments in different industries, because reporting requirements for segment data changed considerably in 1998. Many firms split relatively homogenous divisions and reported many segments in 1998 where they had reported only one in 1997. Requiring business segments in different industries alleviates this problem.

outsider-dominated board, and the appointment of an outsider. If the decision to rehire a former CEO is consistent with shareholder value maximization, one would expect a positive stock price reaction at the rehiring announcement and for firm performance to improve after the rehiring.

3.2. Entrenchment hypothesis

If the principal reason to rehire a former CEO is that the former CEO is so entrenched that he can force the firm to hire him back, we should find that person-specific characteristics are more important in the rehiring decision than firm-specific characteristics. Managers get more entrenched the longer they are with their firms. We measure tenure as the length of time that the executive holds the title of CEO and expect that the former CEO's tenure is positively related to the likelihood of rehiring a former CEO.

Also, a more entrenched former CEO would have a closer relationship with the board of directors. We create an indicator variable equal to one if the CEO is the chairman of the board and zero otherwise to measure the closeness of the relation between the board and the former CEO. Under the entrenchment hypothesis, we expect the likelihood of rehiring a former CEO to be positively related to this indicator variable.

The former CEO may have more of a chance of influencing the board if he is one of the company's founders. Adams, Almeida, and Ferreira (2005) include an indicator variable for founder status as a proxy for CEO power. Consistent with the management literature (Donaldson and Lorch (1983) and Finkelstein (1992)), Adams, Almeida, and Ferreira (2005) and Fahlenbrach (2006) consider CEOs who also are founders to be more influential. We create an indicator variable equal to one if the former CEO is one of the company's founders.

It is likely that a former CEO's power would erode the longer he is retired from the CEO position. We include a variable that measures years in retirement. Under the entrenchment hypothesis, we expect this variable to be negatively related to the decision to rehire a former CEO.

If a prior CEO is still financially attached to the firm, we also would expect the likelihood of him being rehired to be higher. We use stock ownership of the prior CEO as a proxy for financial attachment to the firm. We measure stock ownership of the CEO as the percentage of total stock ownership at the time of the prior CEO's retirement.[8] Under the entrenchment hypothesis, we expect the likelihood of rehiring a former CEO to be positively related to CEO stock ownership. Finally, if the decision to rehire a former CEO is consistent with the entrenchment hypothesis and not the case of the best available candidate being hired, we would expect a negative stock price reaction at the announcement of the rehiring and for firm performance not to improve after the rehiring decision.

4. Empirical results

4.1 Univariate statistics

[Insert table 3 here]

Table 3 presents descriptive statistics on stock market performance and firm characteristics for the sample of firms with rehired CEOs and the control sample. The last column of table 3 reports the p-values for the differences in means and medians between the two samples. The accounting variables are taken from the last proxy available prior to the turnover

[8] Ideally, we would like to measure the ownership of the prior CEO at the date of resignation of the short-tenure CEO. However, this number is unobservable for most prior CEOs of the control group.

of the current CEO, and institutional shareholdings are taken from the Thomson Financial 13f filings of the last quarter prior to the turnover announcement.

The average stock market performances of the two groups are statistically different under the prior CEO. The former CEO in the rehired CEO sample outperformed the market and his industry. The annual market-adjusted stock return and industry-adjusted stock return for sample firms is 0.039 and 0.025, respectively. In contrast, the prior CEO in the control sample underperformed the market and his industry with returns of -0.028.

As shown in table 3, the current CEOs in both samples underperformed the market and their industries. On average, the market-adjusted return is -0.256 for the rehired sample and -0.073 for the control sample. The returns are statistically different at the 10% significance level. Industry-adjusted stock returns under the current CEO behave qualitatively and quantitatively similarly. The poor performance of the current CEO confirms conjectures made in the business press (e.g.,Anonymous (2001), Olian (2003), and Said (2004)). Also, Denis and Denis (1995) and Warner, Watts, and Wruck (1988) document a positive relation between poor stock performance and an external hire. Our findings suggest that for firms with particularly poor performance, the BOD hired an internal candidate – one of the prior CEOs.

In addition to data on stock market performance, table 3 reports descriptive statistics on size, investment, growth opportunities, profitability, and industry heterogeneity. The samples are not statistically different with respect to total assets, capital expenditures, market leverage, return on assets, and return on equity. The sample of rehired CEOs, however, is characterized by lower tangible assets, higher median R&D expenditures, higher median sales growth, and a higher median market-to-book ratio in the year prior to the turnover. Neither total institutional ownership nor block institutional ownership is statistically different across the two samples.

There is no statistical difference in the partial industry correlation measure of Parrino (1997) between the rehired CEO and control samples. The last two rows of the table contain measures of firm complexity. The first one is a count variable of the number of business segments in different Fama and French (1997) industries per firm, and the second one is a high-tech indicator variable based on the classification of Loughran and Ritter (2004). While there is no difference between sample and control firms in terms of number of business segments reported, a significantly higher fraction of rehired CEO firms are high-tech firms.

Overall, the univariate statistics of table 3 shows that there are large stock market performance differences in the two samples and provides some evidence that rehired CEO firms require more firm-specific capital (less tangible assets, more R&D expenditures, higher fraction of high-tech firms).

4.2 The likelihood of rehiring a former CEO

Table 4 presents the results of probit regressions estimating the likelihood of rehiring a CEO using firm and industry characteristics. The dependent variable is equal to one if a CEO is rehired and zero otherwise. The table reports the marginal changes in the probability of rehiring a CEO, implied by the probit coefficient estimates that result from a unit change in the explanatory variables. For indicator variables, the coefficient represents the change in the probability associated with moving the indicator from 0 to 1. In the discussion below, we focus on the significance of these marginal effects, labeled "ΔProb".

[Insert Table 4 here]

Table 3 suggests that there are significant stock market performance differences that could help explain whether a prior CEO is returning to the CEO position or not. The first four models in table 4 include only the stock performances of prior and current CEOs as explanatory variables. In model 1 (model 2), stock market performance is measured using annualized market-adjusted (industry-adjusted) returns. The stock performance during the tenure of the prior CEO is a statistically significant determinant of the probability of rehiring a former CEO. For example, when stock market performance is measured using market-adjusted stock returns (model 1), a one standard deviation return increase (0.249) is associated with a 5.2% increase in the probability of rehiring a former CEO. In contrast, the stock performance of the current short-tenure CEO is not related to the probability of rehiring a former CEO. Model 2 uses industry-adjusted returns, and shows very similar results.

In model 3, we include the performance of the prior CEO and an indicator variable that is equal to one if the stock market performance during the tenure of the current CEO is in the bottom quartile, and zero otherwise.[9] The indicator variable tests whether it is more likely that poorly performing CEOs are replaced by their predecessors. As reported in table 4, the indicator variable is statistically strongly significantly related to the probability of rehiring a former CEO. The marginal effect of 0.173 also suggests economic significance. If a firm's stock market performance under the current CEO is in the bottom quartile of the performance distribution, the likelihood that the former CEO is rehired increases by 17.3 percent. The coefficient on the prior CEO's performance remains statistically and economically significant.

Model 4 replaces the market-adjusted performance of the prior CEO by an indicator variable equal to one if the market performance of the prior CEO was in the top quartile of the

[9] As a robustness check, we repeat model 3 using industry-adjusted stock returns and obtain qualitatively similar results. We do not report these results to conserve on space.

distribution. Column 4 of table 4 shows that both indicator variables are strongly positively related to the likelihood of rehiring the former CEO. The marginal effect of good performance of the prior CEO is an increase in the rehire probability of 13.6%, and the marginal effect of poor performance of the current CEO is an increase in the rehire probability of 15.9%. These two coefficients are not statistically significantly different from each other.

It is important to note from table 4 the relatively modest pseudo R-squares for models 1 through 4 ranging from 0.016 to 0.039. Past performance of the prior CEO, as measured by stock returns, appears statistically and economically significant but does not explain a large fraction of the probability of rehiring a former CEO.

In model 5, we include CEO age, proxies for the supply of potential candidates for CEO and firm and industry characteristics that were discussed in section 3.1. As reported in column 5, stock performances of the prior CEO and current CEO remain significant determinants of the likelihood of rehiring a prior CEO even after controlling for firm and industry characteristics. For example, if the current CEO's market performance is in the bottom quartile, there is a 16.3% higher probability of rehiring a former CEO.[10]

The number of years that the prior CEO is in retirement is negatively related to the likelihood of rehiring a former CEO. A one standard deviation (2.23 years) increase in this variable results in a 7.4% decrease in the likelihood of rehiring a former CEO.

The coefficient estimate on Parrino's (1997) partial industry correlation index is positive and significant. Contrary to our prediction in section 3.1, the positive correlation is consistent with firms in more homogeneous industries rehiring their former CEO. The results of Parrino

[10] When the stock market performance is measured as in model 4, only the stock performance of the current CEO is a significant determinant of the likelihood of rehiring a former CEO. The indicator variable equal to one of the prior CEO's market performance is in the highest quartile is not statistically different from zero at the ten percent significance level.

(1997) suggested that internal candidates were more likely to be rehired in more heterogeneous industries.

Finally, as reported in table 4, the likelihood of rehiring a former CEO is higher in firms with more intangible assets. The coefficient estimate on net PPE to assets is negative and significant. A one standard deviation (0.234) decrease in net PPE ratio yields a 6.5% increase in the likelihood of rehiring a former CEO.

Overall, the results in table 4 are consistent with a firm rehiring a former CEO after very poor stock performance of the current CEO, if the firm has more intangible assets, and operates in a more homogeneous industry. Firms also are more likely to rehire their former CEO if the former CEO has only been in retirement for a short period of time.

In table 5, we include additional CEO characteristics to test the entrenchment hypothesis. In model 1, we include all the variables included in model 5 of table 4 and add the CEO founder and chairman status of the prior CEO indicator variables, the tenure of the prior CEO, and the share ownership of the prior CEO. In models 2 and 3, we measure the stock market performance of the current CEO using an indicator variable equal to one if the prior CEO's market performance is in the highest quartile and zero otherwise. In model 3, we also include year indicator variables. We report again marginal effects.

[Insert table 5 here]

As shown in table 5, CEO characteristics are important determinants of the probability of rehiring a former CEO. The pseudo R-squares improve considerably from about 10% in table 4 model 5, to about 27% in the specifications of table 5.

As reported in table 5, performance of the prior CEO only matters if it is in the highest quartile and if the probits include year indicator variables. In this case, the likelihood of rehiring a former CEO is about 12% higher if the former CEO has performed extremely well during his first tenure. A firm also is more likely to rehire a former CEO after very poor performance of the current CEO. The coefficient estimates imply about a 17% increase in the likelihood of rehiring a former CEO. The coefficient estimates are robust across all specifications.

A firm is more likely to rehire a former CEO if he has spent less time in retirement and away from the executive office as indicated by the negative and statistical coefficient estimate on years in retirement. A one standard deviation increase in years of retirement (2.23 years) results in a 9.32% decrease in the likelihood of rehiring a former CEO. The negative coefficient estimate is consistent with either a larger potential pool of other candidates for the position of CEO developing with time, or with a loss of influence by the prior CEO.

Institutional ownership also is a significant determinant of the likelihood of rehiring a former CEO. As reported in table 5, the coefficient estimate on total institutional ownership is positive and statistically significant in all three models. A one standard deviation in total institutional ownership (0.2388) yields approximately 8.9% increase in the likelihood of rehiring a former CEO. One interpretation of this result that is consistent with prior research is that institutional owners impact board decisions (e.g., Parrino, Sias, and Starks (2003)). Additionally, if institutional owners increase the likelihood that the firm will act in the interest of shareholders, the positive coefficient estimate is consistent with the reappointment of the former CEO being a value maximizing decision.

As in table 4, a firm is more likely to rehire a former CEO the more homogeneous the industry and if the firm reports R&D expenditures as indicated by the positive coefficient on the

partial industry correlation measure and negative coefficient estimate on the no R&D reported indicator variable. The likelihood that a firm rehires a former CEO is about 14% lower when the firm does not report R&D sales. One reason that firms do not report R&D expenditures is that these expenditures are relatively small.

The coefficient estimate on the chairman of the board indicator variable implies about a 12% increase in the probability of rehiring a former CEO. This positive coefficient estimate is consistent with the entrenchment hypothesis of section 3.2. A former CEO who is the chairman of the board is more likely to influence the board of directors into rehiring him than a former CEO who is not chairman of the board.

As shown in table 5, the founder CEO indicator variable is only significant when we include year indicator variables. In this case, a firm is about 14% more likely to rehire a former CEO if he is founder of the firm. The positive coefficient estimate also is consistent with the entrenchment hypothesis of section 3.2.

Finally, a one standard deviation (0.097) increase in the fraction of shares owned by the prior CEO at the time of his retirement is associated with a 12.76% increase in the probability of rehiring a former CEO (model 1). This positive relation is consistent with a firm rehiring a prior CEO who is financially invested in the firm and who has an economic interest for the firm to do well. Such a CEO is more likely to be entrenched or to exercise influence on the board of directors.

Overall, the results in table 5 are consistent with a firm rehiring their former CEO if the former CEO had a positive impact on firm performance during his first tenure, and still had a strong attachment to the firm, measured through a short time in retirement, chairman status, and shares owned. Furthermore, rehiring the former CEO is more likely if the current CEO

performed poorly, the higher is the institutional ownership of the firm, the larger is the amount of intangible assets of the firm, and the more homogeneous is the industry.

Thus, the results of the probit regressions are somewhat consistent with the value-maximization hypothesis which predicts that the firm would select the former CEO when he represented the best available candidate as indicated by his prior track record, the need to replace a poorly performing current CEO and relatively scarce supply of CEO candidates. However, some of the results also are consistent with the entrenchment hypothesis which suggests that CEO specific characteristics which measure the prior CEO's influence and attachment to the firm will be significantly related to the rehiring decision. In the next section, we further try to differentiate between these two hypotheses by examining the market reaction to the rehiring decision and the performance after rehiring the former CEO.

4.3 Market reaction to the announcement of the rehiring decision

Several studies have examined the stock market announcement returns to management turnover (e.g., Denis and Denis (1995), and Warner, Watts, and Wruck (1988)). These studies have been careful to avoid a one-dimensional hypothesis regarding turnover announcement returns. For example, both Denis and Denis (1995) and Warner, Watts, and Wruck (1988) hypothesize that there could be at least two different components that form the cumulative abnormal announcement returns: an information component and a real component. The information component of the abnormal return is generated by the signal that the turnover announcement conveys about the worse than expected management performance and quality. The real component of the abnormal return is generated by the market's assessment of the ability

of the new CEO to improve performance. These two components potentially work in opposite directions.

Figures 1a and 1b graph the industry-adjusted and market-adjusted cumulative returns in the 20-day event window around the announcement of the turnover.[11] The solid lines show cumulative returns for CEO turnovers in which the former CEO is rehired (sample group), and the dashed lines show cumulative returns for the control group turnovers. While the control group's cumulative abnormal returns are decreasing by approximately 2% during the entire 20-day event window, there does not seem to be an immediate effect around the announcement date. In contrast, the market appears to react strongly negatively to the announcement of the decision to rehire the former CEO, with both industry- and market-adjusted returns of approximately minus 4%.

Table 6 contains a formal test of this conjecture. It reports the cumulative abnormal announcement returns for the three-day event window [-1, 1] around the announcement of the CEO turnover for both the sample and control groups and tests whether the cumulative returns are different from zero and different from each other.[12] The upper part of the table shows results for industry-adjusted returns, the lower part shows results for market-adjusted returns. The casual evidence from figures 1a and 1b is confirmed in the formal tests of table 6.

[Insert table 6 here]

The industry-adjusted cumulative announcement returns to the rehiring decision are negative and statistically significantly different from zero. The average three-day CAR appears

[11] The figures look similar if median cumulative adjusted returns are graphed and analyzed instead.
[12] Tests using seven day [-3, 3] and eleven day [-5, 5] event windows yield qualitatively and quantitatively similar results.

to be economically large at -3.9%. The turnover announcement return for the control sample is close to zero [-0.35%] and statistically not significant. The third row reports that the cumulative announcement returns of the two samples are statistically different from each other. The lower part of table 6 shows quantitatively and qualitatively similar results for market-adjusted returns. This strong negative return contrasts the negative and insignificant abnormal return for insider hires and positive and significant abnormal return for outside hires in Huson, Malatesta, and Parrino (2004).

While the negative announcement returns suggest that stock market participants expect no performance improvement after a former CEO is rehired, a clear-cut interpretation of the economically significantly negative announcement return of -3.9% (industry-adjusted) and -3.6% (market-adjusted) is more difficult. One possible interpretation is that, in the case of rehired CEOs, the information component of the turnover announcement dominates. We document in table 2 that 75% of the current short tenure CEOs in the rehired CEO sample are internal candidates, often handpicked as successor by the rehired CEO. On average, these candidates have a very short tenure of 20 months. A market participant may infer from the turnover announcement that the current, internally groomed CEO must have made such poor strategic decisions that the board did not want to risk further employment. Rehiring the former CEO may further signal to market participants that there is no internal or external candidate in sight that can fix the problems of the firm, and that the firm cannot afford to go on an extended executive search. As a consequence, the stock price drops at the turnover announcement.

An alternative, not mutually exclusive interpretation deals with the real component of the turnover announcement. There are two possibilities. If the entrenchment hypothesis is correct and the former, entrenched CEO can influence the firm to rehire him, the market would react

negatively to such an announcement, because it would not be shareholder-value maximizing. Both the real and information components are negative. Alternatively, if the shareholder value maximizing hypothesis is correct, the market would welcome the comeback of the experienced former CEO, perhaps because the market projects from his successful first tenure that he will be performance improving for the firm. In that case, the real component would be positive, but in the case of the rehired CEO sample it is not large enough to compensate for the negative information component.

We attempt to examine the relative importance of the real component and information component by using two tests. We first examine the real component by regressing the cumulative industry-adjusted announcement returns on CEO characteristics for our sample of 65 boomerang CEOs. If the real component is important, variables that characterize the quality of the former CEO should have positive coefficients and variables that characterize the entrenchment of the former CEO should have negative coefficients. Table 7 contains the regression results. We do not include more than four explanatory variables at the same time because our sample of boomerang CEOs contains only 65 observations.

[Insert table 7 here]

From table 7 it appears that most CEO-specific characteristics do not help explain the cumulative announcement returns. Variables related to the rehired CEO's age, tenure, time spent in retirement, and prior performance do not have explanatory power in the regression specifications. Interestingly, the founder-CEO variable loads negatively and is statistically significant. The announcement return to the rehire decision is about eight percentage points

lower if the rehired CEO is a founder of the firm. If the founder status of a previous CEO is a sign of influence or power, then the negative coefficient is consistent with the entrenchment hypothesis and a negative real component. The announcement return to the decision of the former CEO to step down after his first tenure has a negative, but insignificant coefficient.

Next, we study whether we can find more evidence for the information component. We compare sample firm accounting data from the last proxy statement prior to the resignation of the current CEO (known to the market at the time of succession) with accounting data from the first proxy after the succession event (possibly unknown to the market at time of succession) and examine changes in key variables relative to the control sample. Table 8 reports these changes for different measures of accounting performance and investment policy.

[Insert table 8 here]

Table 8 shows that the performance during the last year of the short-tenure CEO declined considerably. Return on assets (ROA) declined by 4 percentage points, return on equity declined by 11.5 percentage points, and EBITDA decreased by almost 40% on average. All these changes are statistically strongly significant. The median change in ROA is – 2.1%, which is comparable to the change in the forced turnover sample in Denis and Denis (1995) and Huson, Malatesta, and Parrino (2004). The first two columns of table 8 provide additional evidence on the poor performance of the short-tenure CEO and the magnitude of difficulties the firms may have been in.

As reported in table 8, the control firms did not do better during the last fiscal year that straddles the turnover event. For the control firms, the decline in ROA, ROE, and changes in

EBITDA also are economically and statistically significant. When we compare the decline in these and other key accounting variable across the sample and control group, we cannot reject the hypothesis that the changes are not different across the two groups. Only the average change in EBITDA is significantly smaller for the rehired CEO sample. We conclude from table 8 that while both sets of firms experienced poor performance during the last year of the current CEO, the change in reported performance measures is not different across the two comparison groups.[13] In both cases, the information component is most likely negative.

Overall, we observe economically large negative announcement returns to the rehire decision. We find little evidence that helps us distinguish whether the information component or the real component drive the negative announcement return results. The evidence from table 7 weakly suggests that the real component is negative for the rehired sample. The evidence from table 8 suggests that the information component is negative for both groups of firms.

4.4 Long-term performance consequences of the rehire decision

In this section, we analyze the long-term stock market performance and the time-series changes in accounting performance and growth measures after the rehiring decision and compare it with those of the control group to shed additional light on the entrenchment and shareholder value maximization hypotheses. If the prior CEO comes back from retirement because he is entrenched and values private benefits of control, we expect his firm to do worse than the control group firms that hire a new CEO. If the decision to rehire the former CEO is consistent with the

[13] Note that it is still possible that the information content of the turnover announcement is higher for rehired CEO firms than for control firms if the market knew more about the decline in performance measures for control firms than it knew about the decline in performance for sample firms. However, these two groups are not statistically different in terms of size, growth opportunities, and both belong to the S&P 1,500 with similar reporting requirements, which makes a systematic reporting bias unlikely.

value maximization hypothesis, we expect to see improvement in firm performance for the firm not to do worse than the control group.

4.4.1 Long-term stock performance of firms with rehired CEOs

We follow the suggestion of Mitchell and Stafford (2000) and Fama (1998) and implement a calendar-time portfolio approach to measure long-term event returns. We study two long-term performance windows, 12 months and 24 months. Each month, all firms that experienced a turnover in the past 12 (24) months are included in the post-turnover portfolio. We calculate both equal-weighted and value-weighted portfolio returns for four different turnover portfolios: a portfolio with all turnovers, a portfolio with only turnovers to rehired CEOs, a portfolio with control sample turnovers, and a long-short portfolio in which we go long firms that rehire CEOs and go short control sample firms . We do not calculate portfolio returns for months with fewer than five observations.

We then regress the time-series of portfolio returns in excess of the risk free rate on the four-factors used by Carhart (1997). Carhart's (1997) four-factor model consists of the 3 Fama-French factors (Fama and French (1992)), and a momentum factor.[14] Although there is ongoing debate about whether these factors are proxies for risk, we take no position on this issue and simply view the four-factor model as a method of performance attribution. Thus, we interpret

[14] The Fama-French factors high minus low (HML) and small minus big (SMB) are constructed using 6 value-weighted portfolios formed on size and book-to-market ratios. Rm-Rf, the excess return on the market, is the value-weighted return on all NYSE, AMEX, and NASDAQ stocks (from CRSP) minus the one-month Treasury bill rate (from Ibbotson Associates). The momentum factor is constructed as the equal-weighted average of firms with the highest 30 percent eleven-month returns lagged one month minus the equal-weighted average of firms with the lowest 30 percent eleven-month returns lagged one month. The portfolio includes all NYSE, Amex, and Nasdaq stocks and is re-formed monthly.

the estimated intercept coefficient as the abnormal return in excess of what could have been achieved by an investment in these factors.[15]

Table 9 shows the results of the long-term performance regressions.

[Insert table 9 here]

For the portfolio that uses all turnovers, we cannot reject the hypothesis that there is no statistically significant abnormal return in the post-turnover period, given our model of performance attribution. The lack of significance is robust across the equal-weighted and value-weighted specification, and the one-year and two-year horizon. There is some evidence that the equal-weighted boomerang CEO post-turnover has a statistically significant positive abnormal return. The intercept appears economically large – the coefficient of 2.01 translates into an annual abnormal return of 24%, and the coefficient of the two-year horizon portfolio of 1.21 translates into a two-year return of 29%. However, the results are not consistent if we use value-weighted returns, or if we look at zero-investment long-short portfolios.

Overall, we find no evidence that rehired CEO led firms perform worse than control group firms in the two years following the turnover and some weak evidence that rehired-CEO led firms do in fact perform better. These results are inconsistent with the entrenchment hypothesis.

[15] We recognize at least two potential problems with our approach. First, our approach assumes that the factor loadings on the four factors are constant through time, yet we change the composition of the portfolio on a frequent basis by adding firms after a turnover event or dropping firms after the post-turnover period has ended. However, we have examined that there is no obvious time-period clustering by industry or firm characteristics in our portfolios. Second, our sample of boomerang CEOs is small. We have on average 13 (7) different firms in the two-year (one-year) portfolio in performance regressions that use boomerang firms only. However, the performance attribution regressions for the boomerang turnover portfolios have R-squares of approximately 75%, suggesting that the assumed model explains portfolio returns well.

4.4.2 Accounting performance and growth indicators

Table 10 tabulates the changes in key accounting measures from t=0 to t=2, i.e. from the year of the turnover to two years after the turnover for both the rehired CEO firms and the control group firms. Operating performance and return on equity for both the rehired CEO sample and the control sample significantly increase. Moreover, the economic effects appear to be large. On average, unadjusted return on assets increases over the two years after succession by 4.7% (median: 1.7%) for the rehired CEO sample and by 2.1% (median 0.6%) for the control sample.[16] The numbers of table 10 are qualitatively similar to the mean and median improvements in unadjusted return after forced turnovers reported by Denis and Denis (1995). These improvements in performance are consistent with the value-maximization hypothesis.

There is some evidence from table 10 that some of the performance improvement in both the rehired CEO sample and the control sample is achieved through reductions in capital expenditures. Firms do not seem to sell off assets, because for both the rehired CEO sample and the control sample asset growth is positive in the years following the turnover.

Interestingly, none of the changes from t = 0 to t = 2 are different across the rehired CEO and the control sample. We cannot reject the hypothesis of equal performance improvements and growth rates for firms that rehire their former CEOs and firms that hire an alternative candidate. These results are inconsistent with a situation in which entrenched CEOs come back to enjoy private benefits of control.

[16] We have estimated the effects also on an industry-adjusted basis and have obtained qualitatively and quantitatively similar results.

5. Succession planning

In most cases (75%) of rehiring the former CEO, the current CEO was an employee of the firm, who was likely groomed by the rehired CEO and the board of directors for his new position (e.g., Naveen (2006) and Vancil (1987)). Our results indicate that stock and accounting performance rapidly deteriorate under his tenure. Is it then a case of a fundamental misjudgment of the talent of the internal candidate, or could the successor CEO be partially responsible for the current CEO's problems? Several business press articles (e.g., Olian (2003), Barancik (2003)) argue that rehired CEOs may have undermined their successors' authority by their continuing involvement in their prior firms. For example, John Sykes, founder, chairman, CEO, and president of Sykes Enterprises is quoted in Barancik (2003) on the sudden resignation of his handpicked successor, David Grimes, after four months as CEO:

"David Grimes is a very capable person, has a great track record. […]But he came in with a tremendous handicap. And that handicap was that I sat here as chairman. No matter whether I moved out of this office and went down to the 28th floor, my shadow was here. […] It is very difficult for anyone from the outside to come into a company where the entrepreneur is still there and expect that they can come in and make the changes that are necessary."

Olian (2003) suggests that there is a fine line between sitting on the board to provide advice when asked, versus diminishing the current CEO's authority by forcing his own opinion on the management team. If the current CEO partially failed because a strong, successful former CEO continued to sit on the board of directors, weakening the position of the current CEO and interfering with his strategic plan, and if it is particularly easy to influence an internal candidate who had worked under the strong prior CEO, it is informative to study what happens at the second time the boomerang CEO steps down. Specifically, does the boomerang CEO retire for good and give up all positions within the firm? Is an outside CEO appointed? We have 38 cases

of boomerang CEOs for which we can retrieve information on the second retirement of the boomerang CEO and the succession of the firm.

The majority (66%) of the CEOs following the boomerang CEO's second tenure are outsiders, which compares to only 25% outside appointments at their first retirement. The percentage of boomerang CEOs who remain on the board of directors or who remain chairman of the BOD is still large with 68.4% and 57.9%, but smaller than at the first retirement, where 83% remained as chairmen.[17] Interestingly, the correlation coefficient between hiring an outside CEO and the boomerang CEO continuing in office is -0.25. One explanation that is consistent with the negative correlation is that an outside CEO tends to only accept the appointment if the powerful former CEO resigns from the board of directors so that a clean transfer of responsibility and power is assured.

6. Conclusion

We demonstrate that conditional on the former CEO being available, rehiring a former CEO is a frequent event: in approximately 24% of all these successions, the former CEO is rehired. The probability of rehiring depends on the past performance of both the former and current CEO. Former CEOs are rehired more often if they had a high stock market performance during their first tenure and if their replacement did particularly poorly. Manager-specific characteristics play a significant role. The probability of a firm rehiring one of their former CEOs is positively related to the founder status of the CEO and to his share ownership.

The market reacts negatively to the announcement of the rehiring decision. The announcement return is economically significant at -3.9%. In contrast, there is no significant

[17] We may overstate the continuing board membership of the retired CEO if he merely finishes his term on a staggered board, and then resigns.

announcement effect for other newly hired CEOs from the control group. One possible interpretation of the negative return is that the market did not anticipate the scope of difficulty that the firm was in and incorporated the new information into stock prices. We examine the performance consequences of rehiring the former CEO. While we find significant improvement in performance, we do not find statistically significant differences in stock market performance, return on assets, change in investment policy, or sales growth between firms that rehire their former CEO and those who do not although the former CEO was available This results are not consistent with an entrenchment former CEO returning to enjoy private benefits.

Overall, our evidence is consistent with firms hiring the best available CEO, given the circumstances. Former CEOs who still have an emotional or financial stake in their firm come back to run their firms, and do as well as other new hires.

Figure 1: Stock market performance around turnover announcement days

Figure 1a: Mean industry-adjusted cumulative returns around CEO turnover

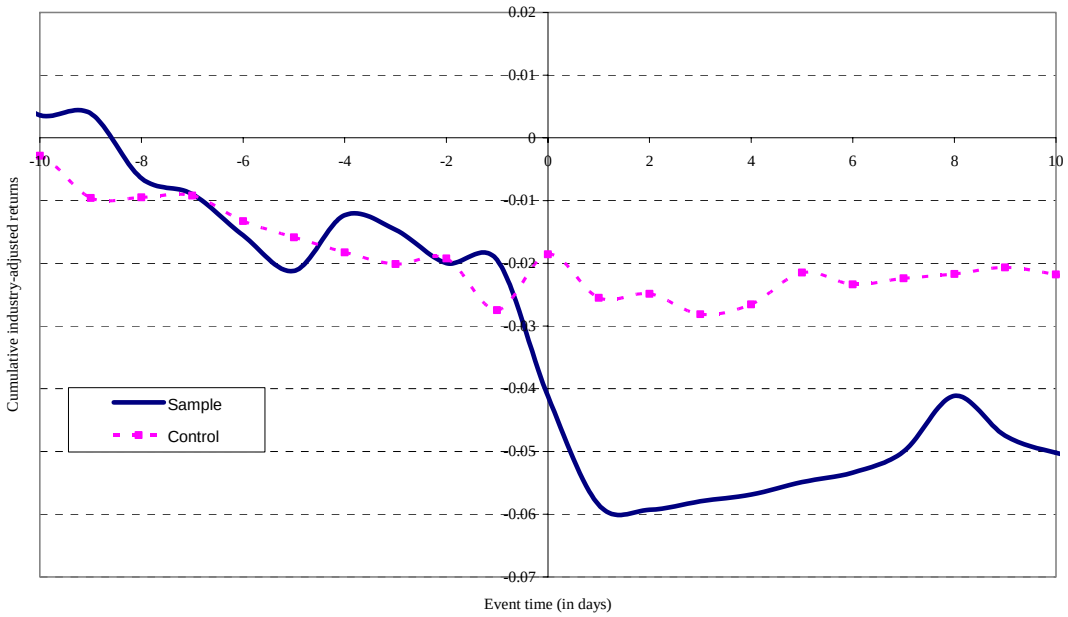

Figure 1b: Mean market-adjusted cumulative returns around CEO turnover

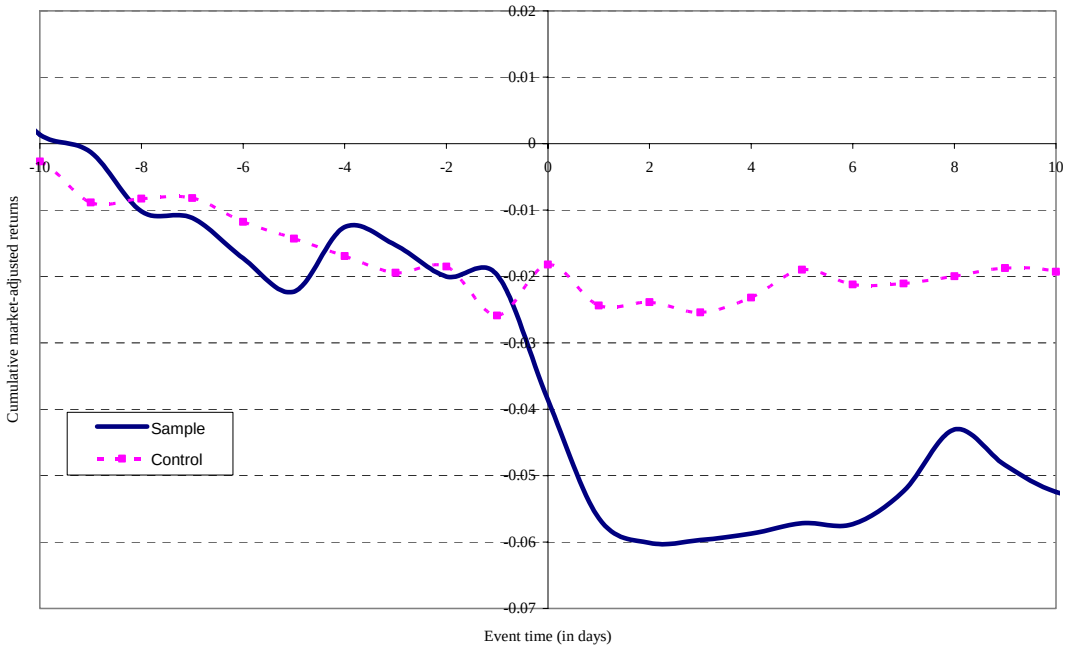

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Table 1: Number of rehired CEOs by year and industry

The table lists the number of CEO turnovers by year (panel A) and industry (panel B). The sample construction is described in detail in section 2. The first column of Panel A shows the number of rehired CEOs by year. A CEO is classified as a rehired CEO if he was the CEO at the same firm at a different point in time for at least six months and stays on during his second tenure for at least six months. Column 2 of Panel A shows the number of turnovers to new CEOs conditional on the former CEO still being a board member. Column 3 lists all other CEO turnovers from the Execucomp universe. Panel B, column 1 lists the five Fama and French (1997) industries with the highest number of rehired CEOs. The second column shows the number of rehired CEOs of a given industry divided by the total number of rehired CEOs.

Panel A: Frequency of CEO turnover over time

Year	Rehired CEO sample [(a)]	Control sample[(b)]	All other turnovers [(c)]
<=1995	4	26	11
1996	8	18	27
1997	4	16	39
1998	6	21	52
1999	11	34	50
2000	8	26	65
2001	8	18	64
2002	7	21	87
2003	6	24	62
2004	3	6	5
Total	65	210	462

Note: (a) All turnovers in which the departing CEO is succeeded by a former CEO, subject to minimum tenure and other requirements outlined in section 2
(b) All turnovers in which the departing CEO is not succeeded by the former CEO, but the former CEO still sits on the board of directors
(c) All other turnovers

Panel B: Top five industries with rehired CEOs

Industry Name (Fama and French 49 industry code)	Number	Percent
Electronic Equipment (37)	10	15.4
Financials (Banking 45, Insurance 46, Trading 48)	9	13.8
Computers (35)	7	10.8
Computer Software (36)	4	6.2
Petroleum and Natural Gas (30)	3	4.6
Total	33	50.8

Table 2: CEO Characteristics

The table shows means and medians of CEO characteristics for sample firms. The first column shows means [medians] for the rehired CEO sample, the second column shows statistics for the control sample, and the third column contains p-values of tests of statistical differences in means and medians across the rehired CEO and the control sample. A firm belongs to the rehired CEO sample if the successor CEO was the CEO at the same firm at a different point in time for at least six months, was member of the board of directors at the turnover of the current CEO, and stays on during his second tenure for at least six months. A firm is in the control sample if the former CEO was member of the board of directors at the turnover of the current CEO. Prior CEO is the rehired CEO in the rehired CEO sample and the CEO in office prior to the current CEO in the control sample. Successor CEO is the rehired (i.e. boomerang) CEO in the rehired CEO and another CEO in the control sample. Tenure is the duration in years of the appointment as CEO. Share ownership is the fractional ownership of the CEO taken from the last proxy statement of his first tenure. Founder of the company is a dummy variable equal to one if the prior CEO founded the firm and zero otherwise. Age at turnover date is the age of the prior CEO on the first day of the successor CEO's appointment. Chairman of the board is an indicator variable equal to one if the last proxy statement prior to the appointment date of the successor CEO states that the prior CEO was chairman of the board, and zero otherwise. Internal hire is an indicator variable equal to one if the current CEO worked for the company for at least 365 days prior to the appointment as CEO. All data are from Execucomp, CRSP, and proxy statements.

	Rehired CEO sample Mean [Median]	Control sample Mean [Median]	p-value of test of difference in Mean [Median]
Prior CEO			
Tenure	11.23 [9.09]	8.51 [6.78]	0.016 [0.005]
Founder of company	43%	23%	0.004
Share ownership at retirement	8.3% [1.2%]	2.9% [0.5%]	0.001 [0.001]
Age at turnover to successor CEO	61.20 [64.00]	61.62 [63.00]	0.717 [0.704]
Chairman of BOD at turnover to successor	83.1%	61.8%	0.001
Current short-tenure CEO			
Tenure	1.66 [1.43]	2.50 [1.65]	0.008 [0.191]
Internal hire	74.6%	71.8%	0.725
Successor CEO			
Tenure	2.76 [1.67]	5.02 [4.52]	0.000 [0.000]

Table 3: Performance and firm characteristics of sample and control group firms

The table contains summary statistics for CEO characteristics, performance measures, and various accounting variables. A firm belongs to the rehired CEO sample if its successor CEO was the CEO at the same firm at a different point in time for at least six months, was member of the board of directors at the turnover of the short-tenure CEO, and stays on during his second tenure for at least six months. A firm is in the control sample if the former CEO was member of the board of directors at the turnover of the short tenure CEO. Market-adjusted return is the annualized return in excess of the market. Industry-adjusted return is the annualized return in excess of the return of the value-weighted Fama-French 49 industry. The accounting variables are taken from the last proxy available prior to the resignation of the short-tenure CEO. The accounting variables are defined in Appendix A. InstitutionAll COMPUSTAT variables are winsorized at the 2% and 98% level.

	Rehired CEO sample		Control Sample		p-values test of diff.	
	Mean	Median	Mean	Median	Mean	Median
Market-adjusted return						
Prior CEO	0.039	0.026	-0.028	-0.024	0.019	0.001
Current CEO	-0.256	-0.316	-0.073	-0.147	0.052	0.020
Industry-adjusted return						
Prior CEO	0.025	0.022	-0.028	-0.012	0.046	0.013
Current CEO	-0.250	-0.286	-0.080	-0.106	0.094	0.008
Firm Characteristics						
Total assets	6,421.00	998.00	9,602.0	1,098.00	0.429	0.777
Market-to-book ratio	2.99	1.98	2.58	1.71	0.314	0.037
Sales growth	0.191	0.112	0.155	0.061	0.607	0.030
Capital expenditures /Assets	0.054	0.042	0.064	0.045	0.182	0.569
Net PPE /Assets	0.235	0.191	0.320	0.275	0.010	0.013
R&D / Sales	0.061	0.00	0.053	0.00	0.627	0.010
Market leverage ratio	0.232	0.180	0.264	0.217	0.323	0.349
ROA	0.125	0.115	0.098	0.109	0.112	0.323
ROE	-0.001	0.091	-0.058	0.080	0.412	0.395
Institutional ownership						
Total institutional ownership	59.20%	60.8	55.80%	57.2	0.299	0.373
Block institutional block ownership	14.90%	12.8	15.80%	13.7	0.692	0.754
Measures of heterogeneity and complexity						
Average partial industry correlation	0.203	0.187	0.198	0.170	0.671	0.486
Number of business segments	1.363	1.00	0.131	1.00	0.386	0.633
High-tech indicator variable	0.215		0.099		0.013	

Table 4: The decision to rehire a former CEO and prior stock market performance

Probit regressions of the likelihood of rehiring a former CEO. The dependent variable is equal to one if the successor CEO is the rehired CEO, and zero otherwise. The sample is described in section 2. The table reports *marginal* effects. Prior CEO is the rehired CEO for the sample firms and the CEO prior to the current CEO for the control firms. Market-adjusted performance is the annualized stock return less the CRSP value-weighted market return over the tenure of the respective CEO. Industry-adjusted performance is the annualized stock return less the value-weighted return of one of the 49 Fama-French industries over the tenure of the respective CEO. Current CEO's market-adjusted performance in lowest quartile is an indicator variable equal to one if the annualized market-adjusted performance of the current CEO falls in the lowest quartile of the current CEO's performance distribution, and zero otherwise. Prior CEO's market-adjusted performance in highest quartile is an indicator variable equal to one if the annualized market-adjusted performance of the former CEO is in the top quartile of the performance distribution, and zero otherwise. All other variables are described in detail in appendix A. Standard errors are corrected for heteroscedasticity and are reported in parentheses. Statistical significance at the 1%, 5%, and 10% level is indicated by ***, **, and *, respectively.

	Model 1	Model 2	Model 3	Model 4	Model 5
Market-adjusted performance of prior CEO	0.208* (0.109)		0.214* (0.112)		0.206** (0.163)
Market-adjusted performance of current CEO	-0.072 (0.053)				
Industry-adjusted performance of prior CEO		0.235* (0.123)			
Industry-adjusted performance of current CEO		-0.043 (0.034)			
Current CEO's market-adjusted performance is in lowest quartile			0.173*** (0.069)	0.159*** (0.068)	0.163** (0.079)
Prior CEO's market-adjusted performance is in the highest quartile				0.136** (0.067))	
Age of prior CEO					0.005 (0.004)
Current CEO is an internal hire					0.028 (0.032)
Years in retirement					-0.033** (0.017)
Total institutional ownership					0.206 (0.128)
High tech industry					0.133 (0.095)
Number of business segments					0.001 (0.028)
Partial industry correlation					0.801* (0.444)
Log(Assets)					0.011 (0.020)
R&D to sales					-0.021 (0.177)
No R&D reported					-0.084 (0.065)
Net PPE to assets					-0.280* (0.149)
Number of observations	260	260	260	260	231
Observed probability	0.255	0.255	0.255	0.255	0.268
Predicted probability	0.247	0.250	0.247	0.248	0.244
Pseudo R-square	0.021	0.016	0.037	0.039	0.108

Table 5: Determinants of the decision to rehire a former CEO and CEO characteristics

Probit regressions of the likelihood of rehiring a former CEO. The dependent variable is equal to one if the successor CEO is the rehired CEO, and zero otherwise. The sample is described in section 2. The table reports *marginal* effects. Prior CEO is the rehired CEO for the sample firms and the CEO prior to the current CEO for the control firms. Market-adjusted performance is the annualized stock return less the CRSP value-weighted market return. All COMPUSTAT variables are from the last fiscal year prior to the turnover of the current CEO. Age of prior CEO, board membership of prior CEO, and institutional ownership are measured at time of the turnover of the current CEO. Share ownership of prior CEO is from the last proxy statement of the prior CEO's tenure. Current CEO is an internal hire is an indicator variable equal to one if the current CEO has been an employee of the firm for at least 365 days when he is appointed CEO and zero otherwise. All other variables are described in detail in appendix A. Standard errors corrected for heteroscedasticity are reported in parentheses. Statistical significance at the 1%, 5%, and 10% level is indicated by ***, **, and *, respectively.

	Model 1	Model 2	Model 3
Market-adjusted performance of prior CEO	0.1486 (0.109)		
Prior CEO's market-adjusted performance is in highest quartile		0.0831 (0.070)	0.1212* (0.078)
Current CEO's market-adjusted performance is in lowest quartile	0.1744** (0.082)	0.1678** (0.081)	0.1806** (0.084)
Age of prior CEO	0.0011 (0.004)	0.0011 (0.004)	0.0010 (0.004)
Current CEO is an internal hire	0.0164 (0.031)	0.0189 (0.031)	0.0345 (0.034)
Years in retirement	-0.0418** (0.018)	-0.0411** (0.018)	-0.0543*** (0.020)
Total institutional ownership	0.3873** (0.132)	0.3935*** (0.1324)	0.3711** (0.151)
High tech industry	0.1029 (0.091)	0.1049 (0.092)	0.0833 (0.095)
Number of business segments	0.0321 (0.029)	0.0300 (0.030)	0.0392 (0.038)
Partial industry correlation	0.889** (0.447)	0.8426* (0.452)	0.7354 (0.4601)
Log(Assets)	0.0203 (0.020)	0.0194 (0.021)	0.0176 (0.021)
R&D to sales	-0.0140 (0.205)	-0.0246 (0.198)	-0.0728 (0.213)
No R&D reported	-0.1441** (0.062)	-0.1424** (0.063)	-0.1562** (0.066)
Net PPE to assets	-0.2123 (0.149)	-0.1930 (0.150)	-0.1898 (0.155)
Tenure of prior CEO	0.0055 (0.004)	0.0059* (0.004)	0.0050 (0.004)
Prior CEO is founder of company	0.0968 (0.080)	0.1021 (0.079)	0.1416* (0.085)
Prior CEO is chairman	0.1134* (0.062)	0.1155* (0.062)	0.1179* (0.064)
Share ownership of prior CEO	1.315*** (0.409)	1.3047*** (0.416)	1.4718*** (0.448)
N	231	231	226
Year-fixed effects	No	No	Yes
Observed probability	0.2684	0.2684	0.2743
Predicted probability	0.2092	0.2096	0.2055
Pseudo R-square	0.2354	0.2346	0.2764

Table 6: Turnover announcement returns for the rehired CEO and control sample

The table shows average cumulative abnormal announcement returns [CARs] for the [-1, 1]-day event window around the CEO turnover announcement. The overall sample contains all CEO turnover events where the former CEO is member of the board of directors at the turnover of his successor. The rehired CEO sample contains all turnover events in which the former CEO is rehired. The control sample contains all turnover events in which a different CEO is hired. The first three rows show industry-adjusted CARs, and rows four to six show market-adjusted CARs. Industry-adjusted CARs are calculated by removing the value-weighted industry return, based on the industry classification of Fama and French (1997), from the raw returns of the firm for each event day. Market-adjusted CARs are calculated by removing the value-weighted CRSP market return from the raw returns of the firm for each event day. The first row in each block tests whether the mean CAR for control group turnovers is zero, the second row in each block tests whether the mean CAR for rehired CEO turnovers is zero, and the third row tests whether the difference between the mean CAR for the control group and the sample group is different from zero. Statistical significance at the 1%, 5%, and 10% level is indicated by ***, **, and *, respectively.

Industry-adjusted returns

	N	Mean	Std Dev	P-value for test of mean CAR = 0
Industry-adj. CAR - Control	197	-0.0035	0.1076	0.6509
Industry-adj. CAR - Sample	65	-0.0386	0.1317	0.0213**
Industry-adj. CAR (Control - Sample)		0.0351	0.114	0.0324**

Market-adjusted returns

	N	Mean	Std Dev	P-value for test of mean CAR = 0
Market-adj. CAR - Control	197	-0.0034	0.1068	0.6573
Market-adj. CAR - Sample	65	-0.0364	0.1344	0.0327**
Market-adj. CAR (Control – Sample)		0.0330	0.1142	0.0443**

Table 7: Announcement returns and rehired CEO characteristics

The table shows regression results of the cumulative industry-adjusted event returns on characteristics of the rehired CEO. The cumulative announcement returns are calculated over a three-day event window [-1, 1]. Only observations in which the new chief executive is a former CEO are included in the regressions (65 observations). Rehired CEO is founder is an indicator variable equal to one if the rehired CEO is founder of the firm, and zero otherwise. Rehired CEO is chairman is an indicator variable equal to one if the rehired CEO is chairman of the board at the announcement of his second appointment. Previous tenure of rehired CEO is the length of the rehired CEO's tenure in years. Years rehired CEO spent in retirement is the length of time between the rehired CEO's first retirement and the announcement of his reappointment. Age of rehired CEO is the age of the rehired CEO at the time of his reappointment. 3-day announcement return to rehired CEO's 1st retirement is the cumulative industry-adjusted 3-day announcement return to the turnover announcement at the end of the rehired CEO's first retirement. Rehired industry-adjusted performance is the annualized industry-adjusted performance of the rehired CEO during his first tenure. Standard errors are reported in parentheses. Statistical significance at the 1%, 5%, and 10% level is indicated by ***, **, and *, respectively.

	Model 1	Model 2	Model 3	Model 4
Rehired CEO is founder of company	-0.082**	-0.090**	-0.081**	-0.085**
	(0.034)	(0.034)	(0.033)	(0.034)
Rehired CEO is chairman	-0.010			
	(0.044)			
Previous tenure of rehired CEO		0.001		0.000
		(0.002)		(0.002)
Years rehired CEO spent in retirement		0.007		
		(0.016)		
Age of rehired CEO		0.001	0.002	
		(0.002)	(0.002)	
3-day announcement return to rehired CEO's 1st retirement			-0.402	-0.384
			(0.284)	(0.294)
Rehired CEO's industry-adjusted performance				-0.063
				(0.099)
Intercept	0.002	-0.100	-0.122	-0.017
	(0.039)	(0.131)	(0.126)	(0.031)
F-test (p-value)	0.043	0.116	0.031	0.070
Adjusted R-square	0.069	0.057	0.095	0.077

Table 8: Accounting and performance changes around turnover of current CEOs

The Table shows time-series changes in accounting and performance measures from the last annual report under the current CEO (data known at the time of turnover) to the first annual report after the turnover event (data partially unknown at the time of turnover). All Compustat variables are winsorized at the 2% level. The first two columns show mean and median changes for the rehired CEO sample, and columns 3 and 4 show mean and median changes for the control group sample. Changes that are statistically different from zero are indicated by asterisks. The last two columns contain p-values for tests of differences between means and medians across the rehired CEO sample and the control group. Statistical significance at the 1%, 5%, and 10% level is indicated by ***, **, and *, respectively.

	Rehired CEO sample		Control Sample		Test of difference	
Variable	Mean	Median	Mean	Median	Mean	Median
Change in ROA	-0.043***	-0.021***	-0.025***	-0.009***	0.118	0.140
Change in ROE	-0.115***	-0.043***	-0.116***	-0.030***	0.979	0.779
Change in Capex	-0.002	-0.001	-0.005**	-0.003*	0.460	0.642
Change in R&D / Sales	0.005	0.002	0.007	0.000	0.819	0.306
Change in Z score [%]	-11.6%	-16.1%**	-16.6%***	-13.1%***	0.551	0.935
Sales growth [%]	1.5%	3.1%	2.7%	1.8%	0.771	0.902
Ebitda growth [%]	-39.4%***	-13.1%***	-15.0%**	-4.0%**	0.042**	0.175
Asset growth [%]	3.4%	1.5%	3.8%*	1.2%	0.913	0.927

Table 9: Long-run abnormal stock returns around CEO turnover events

The table shows intercepts (alphas) from performance attribution regressions using the calendar-time portfolio approach. Sample period is January 1994 to December 2005. In each month t, all firms that have experienced an executive turnover in the prior 12 (24) months are included in the post-turnover portfolio. In three additional specifications, results are estimated separately for the sample firms, the control firms, and a long-short portfolio in which firms that rehired their CEOs are bought and control firms are sold short. For each month of each portfolio, both value-weighted and equal weighted portfolio returns are calculated. The portfolio returns in excess of the risk-free interest rate are then used to estimate abnormal returns in a Fama and French (1992) and Carhart (1997) four-factor model of performance attribution. The intercept alpha measures the return to the portfolio in excess of returns to zero-investment portfolios capturing the excess return of the market, the difference between a portfolio of small stocks and big stocks, the difference between a portfolio of high book equity to market equity (BE/ME) stocks and low BE/ME stock, and the difference between a portfolio of high momentum and low momentum stocks. Only portfolio months with more than five observations are included in the regression. Standard errors are reported below the coefficient estimate. Statistical significance at the 1%, 5%, and 10% level is indicated by ***, **, and *, respectively.

	alpha (12 months)		alpha (24 months)	
	equal-weighted	value-weighted	equal-weighted	value-weighted
All turnovers	0.421	-0.218	0.210	-0.304
	(0.371)	(0.443)	(0.332)	(0.395)
Rehired CEOs	2.010**	0.330	1.207*	-0.421
	(0.854)	(1.060)	(0.623)	(0.699)
Control firm CEOs	0.181	-0.352	0.051	-0.363
	(0.402)	(0.479)	(0.353)	(0.419)
Long rehired CEO, short control firms	1.442	0.279	0.922	-0.062
	(0.954)	(1.192)	(0.646)	(0.775)

Table 10: Accounting and performance changes after the turnover event

The Table shows time-series changes in accounting and performance measures from the year of the turnover of the current short-tenure CEO to two years after the turnover. The CEO position turns over to either a former CEO (rehired CEO sample) or to a new CEO (control sample). The first two columns show mean and median changes for the rehired CEO sample, and columns 3 and 4 show mean and median changes for the control group sample. Changes that are statistically different from zero are indicated by asterisks. The last two columns contain p-values for tests of differences between means and medians across the rehired CEO sample and the control group. Statistical significance at the 1%, 5%, and 10% level is indicated by ***, **, and *, respectively.

	Rehired CEO sample		Control Sample		Test of difference	
Variable	Mean	Median	Mean	Median	Mean	Median
Change in ROA	0.047**	0.017**	0.021***	0.006**	0.180	0.323
Change in ROE	0.101*	0.048**	0.168***	0.027***	0.383	0.573
Change in Capex	-0.011*	-0.005**	-0.015***	-0.008***	0.624	0.618
Change in R&D / Sales	-0.010	0.000	-0.004	0.000	0.441	0.579
Change in Altman's Z score [%]	17.0%	2.4%	-7.5%	1.7%	0.247	0.851
Sales growth [%]	7.6%	3.4%	12.5%**	7.9%**	0.427	0.545
Ebitda growth [%]	24.9%	6.8%	18.7%	7.1%	0.808	0.710
Asset growth [%]	18.2%**	6.5%*	11.4%***	3.0%***	0.415	0.959

Appendix A: Variable definitions

This appendix describes the COMPUSTAT variables we used in our analysis. When calculating the ratios, the variables are taken from the same COMPUSTAT year unless specified otherwise.

Derived Variables:

BE (Book value of Equity) = Shareholders' equity (216) [or total liabilities (181), or common equity (60) + preferred stock carrying value (130)] – Preferred stock liquidating value (10) [or preferred stock redemption value (56), or preferred stock carrying value (130)];

ME (Market value of Equity) = Fiscal year end market price (199) * Common shares outstanding (25);

Y (Income available to common shareholders) = Income before extraordinary items (18) – Preferred dividends (19) + Deferred taxes (50) if available;

V (Total firm value) = Total assets (6) – BE + ME;

Debt = Long-term debt (9) + Debt in current liabilities (34);

EBIT (Earnings before interest and taxes) = Income before extraordinary items (18) + Interest expenses (15) + Income taxes (16)

Number of segments = number of different business segments reported in the Compustat segment database. To remove biases due to the finer reporting requirements starting in fiscal year 1997/1998, we pool segments into the 49 Fama and French industries and count the number of segments across industries.

Ratios:

Market-to-book ratio = ME / BE;

ROA = EBITDA (13) / Assets (6)

ROE = Y / BE;

Book Leverage ratio = Debt / (Debt + BE);

Asset Growth$_t$ = A (6)$_t$ / A (6)$_t$ – 1;

Sales Growth$_t$ = Sales (12)$_t$ / Sales (12)$_{t-1}$ – 1;

Net PPE / Assets = Net PP&E (8) / Assets (6);

CAPEX / Assets = Capital expenditure (128) / Assets (6);

Acquisitions / Assets = Acquisition costs (129) / Assets (6);

R&D / Sales = R&D expenditure (46) / Sales (12);

Interest coverage ratio = EBIT / INT (15);

Altman's Z score = 1.2 * Working capital (179) / Assets (6) + 1.4 * Retained Earnings (36) / Assets (6) + 3.3 * EBIT / Assets (6) + 1.0 * Sales (12) / Assets (6) + 0.6 * ME / Liabilities (181)