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Are They Different? CEOs Made in CEO Factories

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Abstract

We examine the employment histories of CEOs at large US companies and find that a disproportionately large number of CEOs are originated from a small number of high-profile firms that are praised for their superior abilities in training and developing corporate leaders, referred to as *CEO factories*. Specifically, 20.5% of all CEOs appointed at the S&P 1500 firms from 1992 to 2010 came from 36 CEO factories. CEOs originated from those CEO factories are referred to as *factory CEOs*. Appointments of factory CEOs are associated with significantly larger announcement returns than the appointments of CEOs without work experiences at a factory firm. The abnormal announcement returns are larger for CEOs who had a longer tenure at a CEO factory and for CEOs who joined the new firm shortly after their departure from a CEO factory, suggesting that CEOs accumulated valuable human capital while working at the CEO factory. We further show that factory CEOs tend to adopt investment and financing policies similar to those they had implemented or witnessed at the CEO factory. The choice of a factory CEO appears to be a decision made by the board of directors, taking into account the portfolio of the CEO's managerial skills and the imprints of the CEO factory. In the long run, firms hiring factory CEOs exhibit better operating performance and award those CEOs with greater compensation.

1. Introduction

Labor economists have long assumed that managerial talents affect firm performance.[1] Only recently, research in economics and finance has started to link managerial styles to corporate decisions and firm performance.[2] Innate traits of CEOs such as overconfidence and risk aversion are shown to be associated with firm investment and financing decisions.[3] Professional experiences such as financial difficulties are also shown to affect managerial decisions.[4] This paper examines how human capital accumulated at companies that are praised for nurturing corporate leaders affects the nature and quality of managerial decisions, and whether prior work experiences in such high-profile companies make better CEOs that create greater values for shareholders.

Anecdotal accounts on CEO appointments recognize that a small number of firms have produced a disproportionately large number of CEOs in the US. For example, General Electric (GE), often praised for its impressive ability of nurturing and developing managerial human capital, provided 49 CEOs and many more top executives for the S&P 1500 firms during the period of 1992 to 2010. We refer to these firms (e.g., GE, IBM, and P&G) as *CEO Factories* and find that over 20% of the CEOs appointed at the S&P 1500 firms come from 36 firms identified as CEO factories (Table 1). Despite the widespread evidence on the role of CEO factories in providing corporate leaders to the economy, there is no systematic examination on the effectiveness of corporate decisions made by CEOs coming from those leadership training grounds (referred to as *Factory CEOs*). Do factory CEOs outperform their peers? Do they have

[1] See, for example, Rosen (1981); Murphy and Zabojnik (2004); Gabaix and Landier (2008).
[2] See, for example, Bertrand and Schoar (2003); Kaplan, Klebanov and Sorensen (2012).
[3] See, for example, Malmendier and Tate (2005, 2008); Graham, Harvey and Puri (2012); Malmendier, Tate and Yan (2011); Cronqvist , Makhija and Yonker (2012).
[4] For example, managers having experienced financial difficulties during their earlier professional careers tend to be more conservative in investment and financing policies; see Schoar and Zuo (2013); Dittmar and Dunchin (2013).

different management styles? Are those management styles transferrable when executives switch employers? This paper is designed to answer these questions.[5]

Managerial skills consist of general managerial skills, and industry- and firm-specific human capital (Murphy and Zabojnik 2004; Cremers and Grinstein 2013). General managerial skills such as strategic visions, abilities to motivate employees, and perseverance in achieving goals can be developed at CEO factories, and are likely portable across firms. Industry and firm specific human capital such as relationship with suppliers and customers, and technical and regulatory knowledge unique to the industry are less transferrable when an executive switches employers. Both types of skills are critical for a CEO's success. Murphy and Zabojnik (2004) and Custodia, Ferreira and Matos (2012) present evidence on the increased importance of general managerial skills over firm-specific human capital in the market for CEOs in recent years.

Strong general managerial skills that factory CEOs acquired at leadership training grounds are likely to be applicable to their new environments. It is more interesting to know whether factory CEOs tend to gear corporate policies towards what they had implemented or witnessed at those successful CEO factories. For example, a CEO who had been involved in successful acquisitions at a factory firm is more comfortable about engaging in acquisitions to expand his new firm. Does the board of directors take into account such imprints of CEO factories in management styles when hiring a new CEO? Our empirical evidence suggests that,

[5] Fee, Hadlock, and Pierce (2013) examine policy changes around exogenous leadership transitions and find no evidence on idiosyncratic managerial styles; that is, variability and policy changes do not increase with the supply of managerial talent. With forced CEO turnovers, in contrast, they find significant changes in firm policies and claim that their evidence is consistent with causal relationship between managerial style and firm policies and with the board's anticipation of these effects in their choice of replacement managers.

on average, firms appear to have selected factory CEOs with the right skills sets and thus got rewarded in the capital market.[6]

Out of 2,365 new CEO appointments at the current and past S&P 1500 firms during the period of 1992–2010, we identify 484 CEOs who had worked at one or more CEO factories, referred to as *factory CEOs*. The remaining 1,881 CEOs are referred to as *non-factory CEOs*. While a typical CEO factory supplies 14.3 CEOs to the economy, the average number of CEOs originating from non-CEO factories is only 1.6.

To understand whether factory CEOs systematically differ from non-factory CEOs in the quality of human capital, we first analyze the announcement returns for CEO appointments. We compare the abnormal returns in the three-day window around the announcement of appointing factory CEOs with those of appointing non-factory CEOs. The mean difference in the abnormal announcement return between factory and non-factory CEO appointments is 0.951%. Given that the average of the abnormal announcement returns for new CEO appointments is 0.593%, it appears that the market appreciates the management styles and human capital brought by CEOs from the CEO factory. On average, a firm appointing a factory CEO experiences an increase of $167 million in its market capitalization over three days around the announcement date, while the increase for a firm appointing a non-factory CEO is only $20 million.[7]

Interestingly, when we classify new CEOs based on whether they were key executives (CEO, president, and Chief Operating Officer – COO) at the employer immediately before assuming the CEO post, the difference in the announcement return between appointing a factory

[6] Examining the roles of directors in shaping corporate policies, Bouwman and Xuan (2012) show that a firm is more likely to adopt a policy (equity issuance, dividend policy, mergers and acquisitions, earnings management) if other firms at which its directors have board seats have adopted that policy. They conclude that director overlap is a potentially important channel for propagating key corporate policies across firms.

[7] Results are very similar when we compare abnormal announcement returns using a five-day window.

CEO and a non-factory CEO mainly comes from those CEOs who were key executives. In other words, relative to non-factory CEOs, those factory CEOs who had shouldered greater responsibilities, often at CEO factories, are expected to have greater impacts at the new firm and create more values for shareholders. Their experiences at the CEO factory are greatly appreciated because they have proven abilities and/or track records in shaping firm strategies and implementing corporate policies.

There are various reasons why executives who have worked at CEO factories may become successful CEOs. First, some executives are born with innate traits of great leaders such as visions, abilities to motivate people, and resoluteness in achieving goals. CEO factories are good at identifying these future corporate leaders. Second, CEO factories may be good at developing CEO human capital by giving executives greater responsibilities early on and by putting executives into stretch assignments in various environments, both domestic and abroad. Executives may also acquire valuable connections and networks with other future corporate leaders through leadership training programs at those CEO factories. Surely, CEO factories may be good at both identifying and developing managerial talents.

To differentiate these possibilities, we conduct two tests. First, we look at the abnormal announcement returns based on the time span an executive had worked at a CEO factory before assuming the CEO post. If CEO factories are merely good at identifying future leaders, we do not expect to find a difference in abnormal announcement returns between factory CEOs with longer tenures and those with shorter tenures at the CEO factory. Not surprisingly, we find that CEOs who had worked longer at a CEO factory are associated with a significantly higher announcement return, suggesting that executives have acquired managerial skills at CEO factories.

Furthermore, we look the time interval between an executive's departure from a CEO factory and the time when he assumes the CEO post. If CEO factories merely select mangers with great innate leadership traits, we expect to find no difference in abnormal announcement returns between factory CEOs who assume the CEO post shortly after departing from the CEO factory and those who left the CEO factory a while ago, because those innate traits are not supposed to change over time. In contrast, memories of trainings, experiences acquired and connections obtained at a CEO factory may diminish over time. As a result, an executive's human capital may deteriorate over time after leaving a factory firm. We find that an executive who became a CEO shortly after leaving a CEO factory is associated with a significantly greater abnormal return around the announcement, suggesting that executives have acquired managerial skills for becoming a successful CEO at CEO factories.

The positive relation between the appointment of factory CEOs and announcement returns continues to hold in a multivariate framework after controlling for firm characteristics and CEO characteristics such as gender, age and education. Economically, hiring a factory CEO is associated with a 0.746 percentage point increase in the three-day abnormal returns around the announcement date.

If the market believes that factory CEOs have greater abilities to create values, the observed higher announcement returns around the appointment of a factory CEO should be followed by better operating performance at firms hiring a factory CEO. We find that those firms exhibit better operating performance measured by return on assets (ROA) in the three years following the appointment of the CEO, relative to firms hiring a non-factory CEO. In terms of economic magnitude, hiring a factory CEO is associated with an increase of 0.9 percentage point in the operating performance in the first three years. If the human capital developed at CEO

factories is more valuable for shareholders, factory CEOs should be rewarded accordingly. We show that factory CEOs do receive greater compensation at the new firm after controlling for a list of economic determinants of CEO compensation.

Overall, our results highlight the existence of firms which are efficient in developing leadership skills and CEO specific human capital. Given that CEO factories are, on average, diversified firms with 7.4 segments, our paper speaks to one of the bright side of corporate diversification elaborated in Tate ad Lin (2012). This paper provides evidence that employees in diversified firms have greater cross-industry mobility and they are more productive than executives of focused firms of the same size, age and industry. Consistent with this evidence, our paper suggests that one channel CEO factories are able to nurture CEO specific human capital is that they are able to expose their executive talent to a broad variety of industries and help them develop skills that can be transferred to different business environments.

Our results are also related to those in Custodia, Ferreira and Matos (2012) which present evidence on the importance of general managerial skills over firm-specific human capital in the market for CEOs. It is possible that CEO factories allow their employees to develop general managerial skills by providing them with an opportunity to work in different industries across different functions. Consistent with this conjecture, we find that factory CEOs in our sample have an average general managerial ability index of 0.68, significantly higher than the average general managerial ability index of -0.10 for non-factory CEOs.[8]

Another, not mutually exclusive, possibility is that managers gain confidence in certain corporate policies after successfully implementing or witnessing their successful implementation at the factory firm. Thus, they are more likely to implement such "familiar" policies at the new firm. Different factory firms have their unique styles. The board of directors takes into account

[8] We thank Claudia Custodio, Miguel Ferreira, and Pedro Matos for generously sharing their data with us.

such ingrained management styles and purposely select a manager with certain experiences that fit the firm's new strategic direction. These CEOs would likely to gear corporate decisions towards ones of their prior factory firms everything else equal. Our empirical evidence suggests that this is true on average when a firm hires a CEO with factory experience. We find that a convergence in both investment and financing policies between the firm hiring a factory CEO and the CEO's factory firm. Stronger operating performance and the capital market's positive reaction to the appointment of a factory CEO are both supportive of the effectiveness of such matching processes.

This paper is organized as follows. Section 2 describes the data and sample construction. Section 3 examines whether factory CEOs are better performers. Section 4 explores the underlying reasons of the better performance of factory CEOs. Section 5 concludes.

2. Data and Sample Description

We begin constructing our sample of companies and CEOs from the Compustat ExecuComp database between 1992 and 2010. ExecuComp provides time series compensation data for top executives in the S&P 1500 firms starting from year 1992. We identify CEOs at the firm-year level based on the CEO annual flag, the job title, and the year of becoming CEO provided in ExecuComp. For each firm-year, we compare the CEO with the CEO in the previous year, and examine whether there is a CEO turnover in that particular year.

For each of the CEO turnover events, we use the BoardEx database to collect data on the incoming CEO's biographic information. BoardEx provides a comprehensive coverage of senior executives and board members of U.S. public companies, such as personal characteristics (e.g., birth year, gender), educational background (e.g., the school where he earned his undergraduate

degree, or any high-level degree such as MBA), as well as professional working experience (e.g., companies that he worked for, and the roles in those firms).

We next search in Factiva for the exact announcement date for each new CEO appointment. Although ExecuComp provides a date of becoming the CEO, this is usually the date that the new CEO officially takes the office, and it may be very different from the date when the market first learns about the CEO appointment. We exclude CEOs with missing previous employment history. One final sample contains 2,365 CEO appointments (turnovers) over the period of 1992–2010.

For each of our sample CEOs, we trace their employment history prior to becoming the CEO from the BoardEx database. Table 1 presents the top 30 companies (we have 36 companies because of ties) that produced the largest number of CEOs in our sample, and we refer to these firms as *CEO factories*. We define a CEO as a *factory CEO* if he has worked at any of these CEO factories prior to becoming a CEO. The remaining CEOs are classified as *non-factory CEOs*. Among the 2,365 CEO appointments in our sample, 484 are factory CEOs, and 1,881 are non-factory CEOs.[9]

We report the year distribution of CEO appointments of our sample in Panel A, and the industry distribution based on the Fama-French 12 industry classifications (Fama and French 1997) in Panel B of Table 2. There are some variations across years and industries. Our analysis later will include both year fixed effects and industry fixed effects to control for industry patterns and time trends.

Table 3 presents the summary statistics for various characteristics of the hiring firms and incoming CEOs. Variable constructions are described in more detail in the Appendix. In our

[9] Our definition of CEO factories is based on the coverage of all CEOs during our sample period of 1992 to 2010. We also tried alternative rolling windows; the list of CEO factories has been quite stable over time.

sample, 20.5% of new CEOs have factory experiences. On average, factory CEOs have worked at a factory firm for 13 years and assume the CEO post 7.5 years after their departures. Comparing with non-factory CEOs, we find that factory CEOs tend to join larger firms with higher market-to-book ratio, higher leverage, and poorer stock performance. In addition, factory CEOs are more likely to be hired externally,[10] less likely to hold key executive positions (CEO, President, and COO) at the previous employer, less likely to be male, and more likely to have an MBA degree and graduate from an elite school.[11]

3. Are Factory CEOs Better Performers?

Firms identified as CEO factories have consistently provided a large number of CEOs over the years. It is natural to ask if CEOs originated from these factory firms are better performers at their new firms. To answer this question, we first analyze the announcement returns of CEO appointments; and then the long-run operating performance of the hiring firm subsequent to the CEO turnover.

3.1. Announcement Returns around CEO Appointments

3.1.1. Univariate Comparisons

To measure announcement returns from the appointment of CEOs, we obtain cumulative abnormal returns (CARs) using the standard event study methodology developed by Brown and Warner (1985). More specifically, we use the CRSP value-weighted return as the market return and estimate the market model parameters over the 200 trading days ending one month before the CEO appointment date.

[10] Some CEOs were hired first in a transitional role (e.g., COO) before becoming the CEO. We define external hires as the ones who have worked at the focal firm for less than 12 months before getting appointed to the CEO position.
[11] We define elite schools as the eight Ivy League universities plus Stanford and MIT. Our results do not change if we only consider the eight Ivy League schools, or if we consider the top thirty schools which produce the most number of CEOs.

Table 4 reports CARs over the three-day window [-1, +1] and over the five-day window [-2, +2], where the event day 0 is the CEO appointment date. The first two columns of Panel A display the mean and median CARs for the full sample. We find that the mean (median) three-day abnormal return is 0.593% (0.208%) and significantly different from zero at the 1% level. The sign and the magnitude of full sample CARs are consistent with prior research (e.g., Adams and Mansi 2009), and suggest that on average CEO turnover events are value-enhancing to shareholders.

We next split the full sample into two groups based on whether the CEO comes from a CEO factory or not, and present the subsample CAR results. We find that factory CEOs are associated with significantly higher CARs, compared to non-factory CEOs. The mean and median difference in three-day CARs between factory and non-factory CEOs are 0.951% and 0.334% respectively, significantly different from zero at the 1% and the 5% level. The difference is large compared to the full sample mean CAR of 0.593%. In terms of dollar values, an average firm appointing a factory CEO experiences an increase of $167 million in its market capitalization during the three-day window around the announcement, compared to an increase of merely $20 million for an average firm appointing a non-factory CEO. These magnitudes suggest that the market appreciates the values of factory CEOs and reacts positively to their appointments.

In Panel B of Table 4, we look at external CEO and internal CEO subsamples. Among our sample of 2,365 CEO appointments, 959 are hired from outside, and the remaining 1,406 CEOs are promoted internally. Among the external CEOs, 263 are factory CEOs and 696 are non-factory CEOs. Among the internal CEOs, 221 have factory experience and the rest 1,185 do not. Consistent with the previous literature, the announcement returns are significantly higher in

external hires than in internal promotions, regardless of whether this CEO is a factory CEO or not. Interestingly, we find that the difference in CARs between factory and non-factory CEOs comes mainly from externally hired CEOs. The three-day mean CAR for externally hired factory CEOs is 2.281%, significantly higher than the 0.997% CAR for externally hired non-factory CEOs at the 1% level.

CEO's position at the previous job prior to becoming the CEO could also affect the announcement returns of CEO appointment. In Table 4 Panel C, we examine two subsamples based on whether the CEO has served at some key executive positions prior to becoming the CEO of the focal firm. Among 2,365 new CEOs in our sample, 1,289 CEOs held key executive positions in his last job, and the remaining 1,076 CEOs do not. Among the key executives, 247 are factory CEOs and 1,042 are non-factory CEOs. Among the non-key executives, 237 have factory experience and the remaining 839 do not. The difference in CARs between factory and non-factory CEOs stems mostly from former key executives, as the difference in three-day mean CARs between key-executive factory CEOs and non-key executive factory CEOs is 1.43% and significantly different from zero at the 1% level.

As mentioned before, CEO factories could be good at developing CEO specific human capital, or alternatively they could be good at identifying and hiring smart people with an innate ability to make good CEOs. To differentiate between these two possibilities, we examine if the time spent at a CEO factory is related to the announcement returns. If time spent at the CEO factory has no impact on the magnitude of announcement returns, this would favor the selection channel that CEO factories are able to attract people with future leadership potential rather than helping their employees develop human capital critical for becoming a CEO during their tenure at the factory. Hence, we investigate whether CEO's tenure at the factory firms has any impact

on the announcement returns. In Panel D, we partition factory CEOs based on the number of years they spent at the factory firms. The sample median length of stay at factory firms is 11 years. For factory CEOs who spent longer than 11 years in the factory firms, the mean three-day CAR is 1.828%. For factory CEOs who spent less than or equal to 11 years in the factory firms, the mean three-day CAR is 0.878%. The difference is 0.95% and significantly different from zero at the 10% level. This finding suggests that CEO factories are indeed good at promoting skills and human capital necessary for becoming a CEO.

Panel E performs partitions the factory CEO sample based on the number of years the CEOs left from factory firms. Most of the CEOs do not immediately jump ship from the factory firms to become the CEO of another firm. On average, it takes a mean (median) of 7.5 (5.1) years for an employee of a factory firm to become a CEO after he leaves the factory. We partition factory CEOs based on the number of years they left from the factory firms and compare the CARs. For CEOs who left the factory firms for a shorter period, the mean three-day CAR is 1.892%, significantly higher than the 0.806% CAR for CEOs who left for a longer time.

Overall, these univariate results suggest that factory CEOs are perceived by the market to be better CEOs as they are associated with higher announcement returns around the CEO appointment. The difference in abnormal returns between factory CEOs and non-factory CEOs mainly comes from CEOs hired externally and CEOs who held a key executive position prior to becoming the CEO. Furthermore, the longer time the CEO has spent at the factory firm and the shorter time it takes for him to become a CEO after leaving the factory firm, the better the announcement returns.

3.1.2. Multivariate Analyses

In this section, we check the robustness of our earlier univariate finding in a multivariate setting by controlling for a set of firm and CEO characteristics. The dependent variable in these regressions is the three-day CAR around the CEO appointment.[12] The key independent variable is the *Factory CEO* indicator, which equals one if the CEO had working experience at CEO factories prior to becoming the CEO, and zero otherwise.

Table 5 presents our regression results. In Column (1), we only regress the three-day CAR on the *Factory CEO* indicator, and we find a positive and significant coefficient on the key independent variable. In Column (2), we control for firm characteristics such as firm size, Tobin's Q, leverage, ROA, and BHAR prior to CEO appointments. We also include year fixed effects and industry fixed effects. Again, the coefficient on *Factory CEO* is positive and significant. In Column (3), we further control for CEO characteristics such as whether the CEO is an external hire, whether the CEO held key executive positions in his last job, CEO's gender, age, as well as his educational background. The coefficient of CAR on *Factory CEO* is 0.746% and significantly different from zero at the 5% level. Firms that appoint factory CEOs experience abnormal returns that are 0.75 percentage points higher than those firms that appoint non-factory CEOs. Given the sample mean market cap of $6.5B, this translates into a $49 million additional increase in value for the shareholders of the firm hiring a factory CEO.

The coefficients on other control variables are in line with past literature on CEO turnovers. We find that abnormal returns are particularly high when poor performing firms replace their CEOs, suggesting that investors view turnover announcements as good news to correct for previous management errors and improve firm performance. We also show that CARs are significantly higher if the incoming CEO is an external hire and if he has held important positions in his previous job prior to becoming the CEO.

[12] Our results are robust if we use the five-day CAR instead.

Factory CEOs may have different valuation impacts, depending on the types of firms they join and their own characteristics. In Table 6, we further examine the impact of factory CEOs on announcement returns by interacting our key independent variable *Factory CEO* with the past performance of the hiring firm, the external CEO indicator variable, and the key-executive role indicator variable at the last job. For firms that had poorer performance prior to CEO turnovers, factory CEOs may play a more important role in bringing in his experience and expertise learned from factory firms, and therefore, should be associated with higher announcement returns. We find consistent evidence in Column (1) as the interaction term of *Factory CEO* and *BHAR* is negative and significantly different from zero at the 5% level. In Column (2), we interact *Factory CEO* with *External* CEO, and find a positive and significant coefficient on the interaction term. This is consistent with Table 4 Panel B that factory CEOs have a bigger valuation impact on the firm when they are hired externally. We interact *Factory CEO* with *KeyExec at last job* in Column (3) and continue to find a positive and significant coefficient on the interaction term, consistent the earlier evidence in Table 4 Panel C. This suggests that factory CEOs are particularly important when they held key executive positions and had played an important role at the previous employer prior to becoming the CEO.

If CEO factories are good places to nurture CEO human capital, then time spent at a factory before becoming a CEO could matter for the value add potential of the factory CEO. Their tenure at factory firms and the years they left from factory firms could also impact the announcement returns of CEO appointments. Table 7 presents the regression results. In Column (1), we interact *Factory CEO* with the continuous variable *# of years at factory firms*, and find a positive and significant coefficient on the interaction term. In Column (2), we interact *Factory CEO* with the indicator variable *# of years at factory firms>median*. Again, we find a positive

and significant coefficient on the interaction term, supporting the earlier finding that the longer tenure CEOs had at factory firms, the better the announcement returns. Column (3) and (4) examine the effect of the number of years between the CEO's departure from factory firms and taking the new CEO positions at our focal firms. The interactions with both the continuous measure and the indicator give us consistent results that the investors appreciate the CEOs' factory experiences to a larger extent the shorter the time since CEOs left factory firms. These evidences are consistent with Panels D and E of Table 3, and support the view that CEO factories are special places in terms of promoting skills and abilities for becoming a successful CEO.

3.2. Long-run Operating Performance

If factory CEOs are indeed better performers as perceived by the market and greeted through greater announcement returns, , we should also observe better long-run performance in firms that appoint factory CEOs. We use return on assets (ROA) as our measure of operating performance, and track each firm for three years after the CEO officially take over the reins. For each year, we calculate the industry-adjusted ROA by subtracting the median ROA in their industry based on the two-digit SIC codes, and take the average industry-adjusted ROA over the three years. The sample mean (median) three-year average industry-adjusted ROA after the CEO appointment is 0.036 (0.019). For firms that appoint factory CEOs, their three-year average industry-adjusted ROA has a mean of 0.047, significantly higher than the 0.033 for firms that do not appoint a factory CEO.

Table 8 reports the regression results on the long-run ROA. The dependent variable is the three-year average industry-adjusted ROA after the CEO appointment, and the key independent variable is the *Factory CEO* indicator. We present the table in a similar pattern to Table 5. In Column (1), we only regress the ROA on the *Factory CEO* indicator. In Column (2), we include

firm characteristics as well as year and industry fixed effects. In Column (3), we further control for the same set of CEO characteristics such as whether this CEO is an external hire, whether this CEO held key executive positions in his last job, gender, age, as well as educational background. We find positive and significant coefficients on *Factory CEO* across all three columns. To correct for serial correlation, we include the three-year average industry-adjusted ROA before the CEO appointment as an additional control variable in Column (4). The coefficient on *Factory CEO* is 0.009 and significantly different from zero at the 5% level, suggesting that having a factory CEO leads to a 0.9 percentage points increase in the post-turnover industry-adjusted ROA. This result mirrors our earlier finding that announcement returns are higher in firms that appoint factory CEOs, and support the conjecture that factory CEOs are better performers.

4. Why Do Factory CEOs Perform Better?

So far we have presented evidence that factory CEOs are better performers as they are associated with higher announcement returns around CEO appointments as well as better operating performance in the three years following the CEO turnover. In this section, we investigate the economic mechanisms that make these factory CEOs different and better performers.

4.1. Corporate Policy Convergence between Focal Firm and Factory Firms

Superior performance of factory CEOs could be a reflection of the experience and knowledge learned at factory firms. Factory firms may be very successful companies, and factory CEOs may have accumulated important human capital while they worked at these factory firms. If they bring their human capital to the firms that appoint them as CEOs, it could create additional values for these firms.

We first examine whether factory firms are successful companies themselves. We focus on the years that the factory CEOs worked there, and study both their operating performance and stock returns. The average industry-adjusted ROA is 0.06, significantly different from zero at the 1% level. The stocks have also outperformed, as the annual abnormal return is 4.08%, also significantly different from zero at the 1% level. These performance measures suggest that factory firms have outperformed their peers, and the human capital accumulated there could be very valuable.

We next study focal firm's corporate policies following the CEO appointment. If factory CEOs are influenced by their experiences at the factory firm in making corporate decisions at the new firm, we expect to observe that corporate policies of the factory CEO's new firm become more similar to those of the CEO's previous factory. To test this hypothesis, we follow a similar methodology as in Bouwman (2011) and estimate the following multivariate regression model:

$$Policy_{i,t+1\sim t+3} = \alpha + \beta\left(Policy_{Factory} - Policy_{i,t-1}\right) + \gamma Policy_{i,t-1} + \delta Controls_{i,t-1} + \varepsilon_{i,t}$$

We focus on firm investment policies such as R&D, CAPEX, and acquisitions, as well as financial policies such as leverage and dividend payout in the three years following the CEO appointment. We obtain firm-year data on R&D expenditures, CAPEX expenditures, and acquisition expenditures from Compustat, and scale them by book value of total assets. We define leverage as long-term debt plus debt in current liabilities over the book value of assets. We also calculate dividend yield as the percentage ratio between dividend to common stock and market value of equity.

To measure factory CEOs' human capital accumulated at factory firms, we try three different measures of factory experience. The first measure *Policy of factory firm*$_1$ refers to the equal-weighted annual policy of factory firms during the years the CEO worked at the factory

firm. For example, if a CEO worked at IBM between 1985 and 1990, and became a CEO of a smaller company in year 2002, we calculate IBM's average policy value during the period of 1985–1990 and use this as a proxy for the CEO's factory experience. Our second factory experience measure *Policy of factory firm*$_2$ takes into account that some CEOs may have worked at more than one factory firms, and we calculate a value-weighted annual policy of factory firms during the years the CEO worked there, where the weights are based on factory firm's total assets. Our third factory experience measure *Policy of factory firm*$_3$ focuses on the most recent factory experience of the CEO if the CEO has worked at more than one factory firms, and we take an average of annual policy at the most recent factory firm.

Table 9 presents the regression results. Panel A reports investment policies including R&D, CAPEX, and acquisition. Panel B reports financial policies including leverage and dividend yield. Because these policy variables have high serial correlation, we include lagged policy values of the focal firm in all regressions. In addition, we control for firm characteristics in the previous fiscal year such as firm size, firm age, Tobin's Q, sales growth, leverage, ROA, and asset tangibility. All regressions control for year and industry fixed effects. We find positive and significant βs across these policy variables, suggesting that factory CEOs do apply their human capital accumulated at factory firms to the new firms they join. Specifically, everything else equal, they tend to adopt policies at new firms that are similar to those they implemented or witnessed at the factory firms.

4.2. Alternative Explanations

An alternative explanation for our finding in Table 9 is that factory CEOs may not bring in their human capital and do not have an active influence on the focal firm. Instead, these focal firms that hire factory CEOs may be very similar to factory firms, and they display similar

corporate strategies no matter whether factory CEOs are appointed or not. To investigate this possibility, we follow Bertrand and Schoar (2003) and analyze the precise timing of the observed changes in corporate policies. Based on this alternative story, we expect to see some policy convergence between focal firm and factory firms *prior to* the arrival of factory CEOs. If factory CEOs do play an active role in transferring human capital from factory firms to focal firms, we would observe the changes in policies to happen *after* the factory CEO is appointed.

Table 10 presents the regression results on the following multivariate model:

$$Policy_{i,t-1} = \alpha + \beta\left(Policy_{Factory} - Policy_{i,t-2}\right) + \gamma Policy_{i,t-2} + \delta Controls_{i,t-2} + \varepsilon_{i,t-1}$$

Year t refers to the CEO appointment year. As we notice, the estimated coefficients in these placebo regressions are very close to zero, and all but one out of 15 are statistically insignificant. These results confirms that policy convergences happen only after the appointments of factory CEOs and not prior to their arrivals, consistent with the conjecture that factory CEOs bring their accumulated human capital to the focal firms and play an active role there.

Another concern with our finding on corporate policy convergence is that focal firms may mimic corporate strategies of *any* factory firms, not just the factory firm where the factory CEO comes from, as factory firms tend to be successful companies and outperform their peers. In that case, factory CEOs' human capital will not matter for the new companies that hire them as CEOs. To evaluate this possibility, we randomly assign a factory to a factory CEO. This randomly assigned factory firm is in the same Fama-French 12 industry as the actual factory firm, but not the one from which the CEO comes from.[13] We estimate the following regression model:

[13] Since Exxon Corp is the only utility company in our top 30 factory list, we cannot assign a random factory for the 13 CEOs that came from Exxon Corp. Therefore, our sample size reduces from 484 to 471. In an unreported test, we also tried randomly assigning a factory firm without the same FF12 industry requirement, and we observe similar results as none of the estimated coefficients are significantly different from zero.

$$Policy_{i,t+1\sim t+3} = \alpha + \beta\left(Policy_{RandomFactory} - Policy_{i,t-1}\right) + \gamma Policy_{i,t-1}$$

$$+\delta Controls_{i,t-1} + \varepsilon_{i,t}$$

Table 11 reports the regression coefficients. None of the estimated coefficients in these placebo regressions are positive and statistically significant, suggesting that it is not any random factory experience that matters. Instead, it is particularly the factory experience that factory CEOs accumulated during their years working at factory firms that influences the policies and strategies at the new firms.

To further test of robustness of the influence of factory experiences, we match each factory firm with a firm in the same industry with a similar size (and performance), and use the matched firm as the benchmark for our focal firms. The idea is policies at factory firms may simply reflect industry characteristics rather than imprint from those particular factory firms. Our results (unreported) show no convergence of policies of our focal firms towards these hypothetical factory firms.

Finally, given that factory CEOs have the human capital to create greater values for shareholders, they should receive higher compensation when assuming the CEO post, after controlling for the classic (short-run) determinants of CEO compensation. We find that this is indeed the case and present the result in Table 12. On average, a factory CEO earns $34,400 more in salary and $274,000 more in total compensation than a non-factory CEO with similar characteristics.

5. Conclusions

This paper expands the literature on the effect of managers on corporate decisions. We find that CEOs who have worked for high-profile firms that are praised for their superior abilities in developing managerial talents on average perform better at their new firms. Interestingly, they

tend to implement corporate strategies similar to what they have implemented at the factory firm. The board of directors should keep in mind CEOs' tendency in adopting policies that they have witnessed success in the past, and select CEOs with the right portfolio of human capital to execute new corporate strategies.

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Appendix: Variable Definitions

Variables	Definitions	Data Source
Panel A: measure of appointment returns		
CAR	Cumulative abnormal percentage return for the firm using the market model estimated using the return data of 200 trading days ending one month before the CEO appointment date.	CRSP
Panel B: CEO characteristics		
Factory CEO	Indicator variable: 1 for CEOs who has worked at the top thirty firms which produce the most number of CEOs, 0 otherwise.	BoardEx
External CEO	Indicator variable: 1 for CEOs who are hired externally (including promoting to CEO position within one year), 0 otherwise.	BoardEx
KeyExec at last job	Indicator variable: 1 for CEOs who held a key executive position (CEO/COO/President) at the last job prior to becoming the CEO, 0 otherwise.	BoardEx
Male	Indicator variable: 1 for male CEO, 0 otherwise.	ExecuComp
CEO age	Age of the CEO when get appointed.	ExecuComp
MBA	Indicator variable: 1 for CEOs who hold a MBA degree, 0 otherwise.	BoardEx
Elite school	Indicator variable: 1 for CEOs who graduated from Ivy League school (plus Stanford/MIT), 0 otherwise.	BoardEx
Panel C: firm characteristics		
Firm size	Market value of equity in millions calculated as the number of shares outstanding multiplied by the stock price at one month prior to the CEO appointment date. Natural logarithm of the market value of equity is used in regressions.	CRSP
Tobin's Q	Market value of assets over book value of assets.	Compustat
Leverage	Book value of debt over book value of assets.	Compustat
ROA	Sales minus the cost of goods sold, sales and general administration expenses, and working capital change, scaled by book value of assets.	Compustat
BHAR	Buy-and-hold abnormal return during the six-month period ending one month before the CEO appointment date with CRSP value-weighted return as the market index.	CRSP
Panel D: investment and financial policies		
R&D	R&D expenditure over book value of assets.	Compustat
CAPEX	CAPEX expenditure over book value of assets.	Compustat
AQC	Acquisition expenditure over book value of assets.	Compustat
Leverage	Book value of debt over book value of assets.	Compustat
Dividend	Dividend to common stock over the market value of equity, and multiple by 100.	Compustat

Table 1: CEO Factory Firms

This table presents the top thirty six companies that produce the most number of CEOs.

Company Name	Number of CEOs	CEO Factory Rank
GENERAL ELECTRIC CO	49	1
INTERNATIONAL BUSINESS MACHINES (IBM) CORP	47	2
PROCTER & GAMBLE CO	28	3
AT&T CORP	21	4
HEWLETT-PACKARD (HP) CO	21	4
PEPSICO INC	21	4
FORD MOTOR CO	19	7
HONEYWELL INTERNATIONAL INC	19	7
MOTOROLA INC	18	9
LUCENT TECHNOLOGIES INC	14	10
GENERAL MOTORS CORP (GM)	13	11
JOHNSON & JOHNSON	13	11
XEROX CORP	13	11
EXXON CORP	13	11
MACY'S INC	12	15
AMERICAN EXPRESS CO	11	16
INTEL CORP	11	16
KRAFT FOODS INC	11	16
ROCKWELL AUTOMATION INC	11	16
UNITED TECHNOLOGIES CORP (UTC)	11	16
BRISTOL-MYERS SQUIBB CO	10	21
SEARS ROEBUCK & CO	10	21
BAXTER INTERNATIONAL INC	9	23
DOW CHEMICAL CO	9	23
DUPONT(E.I.)DE NEMOURS & CO	9	23
INTERNATIONAL PAPER CO	9	23
SPRINT CORP	9	23
TEXAS INSTRUMENTS INC	9	23
ALBERTSONS INC	8	29
CORNING INC	8	29
EASTMAN KODAK CO	8	29
EMERSON ELECTRIC CO	8	29
KROGER CO	8	29
ELI LILLY & CO	8	29
MERRILL LYNCH & CO INC	8	29
SARA LEE CORP	8	29

Table 2: Sample Distribution

Panel A and B present the distribution of CEO appointments by appointment year and by industry classification, respectively. Numbers for the full sample are presented first, followed by subsamples based on whether the appointed CEO is a factory CEO or not. Factory CEOs are those who have worked at the top thirty firms that produce the most number of CEOs. Non-factory CEOs are those who have not worked at the top thirty firms that produced the most number of CEOs.

Panel A: By CEO appointment year

Year	Full Sample	Factory CEOs		Non-factory CEOs	
		Number	Percentage	Number	Percentage
1992	4	0	0.0%	4	100.0%
1993	52	14	26.9%	38	73.1%
1994	66	13	19.7%	53	80.3%
1995	85	12	14.1%	73	85.9%
1996	105	27	25.7%	78	74.3%
1997	117	18	15.4%	99	84.6%
1998	143	25	17.5%	118	82.5%
1999	170	41	24.1%	129	75.9%
2000	205	55	26.8%	150	73.2%
2001	162	35	21.6%	127	78.4%
2002	152	37	24.3%	115	75.7%
2003	162	37	22.8%	125	77.2%
2004	158	35	22.2%	123	77.8%
2005	180	42	23.3%	138	76.7%
2006	160	28	17.5%	132	82.5%
2007	175	31	17.7%	144	82.3%
2008	156	18	11.5%	138	88.5%
2009	93	14	15.1%	79	84.9%
2010	20	2	10.0%	18	90.0%
Total	2,365	484	20.5%	1,881	79.5%

Table 2: Sample Distribution (continued)

Panel B: By industry classification

FF12 Industry	Full Sample	Factory CEOs		Non-factory CEOs	
		Number	Percentage	Number	Percentage
Consumer nondurables	145	25	17.2%	120	82.8%
Consumer durables	74	19	25.7%	55	74.3%
Manufacturing	336	79	23.5%	257	76.5%
Energy	78	8	10.3%	70	89.7%
Chemical products	93	29	31.2%	64	68.8%
Business equipment	447	143	32.0%	304	68.0%
Telecom	43	16	37.2%	27	62.8%
Utilities	148	7	4.7%	141	95.3%
Wholesale and retail	313	65	20.8%	248	79.2%
Healthcare	163	39	23.9%	124	76.1%
Finance	277	18	6.5%	259	93.5%
Other	248	36	14.5%	212	85.5%
Total	2,365	484	20.5%	1,881	79.5%

Table 3: Summary Statistics

This table presents the summary statistics of 2,365 CEO appointments between 1992 and 2010. All variable definitions are in Appendix.

	Full Sample			Factory CEOs		Non-factory CEOs		Difference			
	N	Mean	Median	Mean	Median	Mean	Median	Mean		Median	
Firm Characteristics											
Market cap ($mil)	2,365	6,526	1,477	12,389	2,483	5,018	1,346	7,371	***	1,137	***
Tobin's Q	2,365	1.931	1.464	2.117	1.636	1.883	1.439	0.234	***	0.197	***
Leverage	2,365	0.226	0.212	0.239	0.218	0.223	0.208	0.016	*	0.010	
ROA	2,365	0.030	0.040	0.023	0.038	0.032	0.040	-0.009		-0.002	
BHAR	2,365	-0.024	-0.037	-0.039	-0.068	-0.020	-0.033	-0.019		-0.035	*
CEO Characteristics											
Factory CEO	2,365	0.205	0.000								
# of years at factory firms	484	13.021	11.008								
# of years left factory firms	484	7.508	5.074								
External CEO	2,365	0.405	0.000	0.543	1.000	0.370	0.000	0.173	***	1.000	***
KeyExec at last job	2,365	0.545	1.000	0.510	1.000	0.554	1.000	-0.044	*	0.000	*
Male	2,365	0.972	1.000	0.959	1.000	0.976	1.000	-0.017	*	0.000	**
CEO age	2,365	51.602	52.000	51.556	52.000	51.614	52.000	-0.058		0.000	
MBA	2,365	0.355	0.000	0.426	0.000	0.337	0.000	0.089	***	0.000	***
Elite school	2,365	0.239	0.000	0.281	0.000	0.229	0.000	0.052	**	0.000	**

Table 4: Announcement Returns – Univariate Comparison

This table presents the univariate analyses of the impact of factory CEOs on announcement returns of CEO appointments. All variable definitions are in Appendix. ***, **, and * stand for statistical significance at the 1%, 5%, and 10% level, respectively.

Panel A: Factory CEOs vs. Non-factory CEOs

	Full Sample (N=2,365)				Factory CEOs (N=484)				Non-factory CEOs (N=1,881)				Difference			
	Mean		Median		Mean		Median		Mean		Median		Mean		Median	
CAR[-1,+1]	0.593	***	0.208	***	1.349	***	0.483	***	0.398	***	0.149	*	0.951	***	0.334	**
CAR[-2,+2]	0.631	***	0.072	**	1.420	***	0.428	***	0.428	***	-0.058		0.993	***	0.486	**

Panel B: External and internal CEOs

	External CEO Sample (N=959)				Factory CEOs (N=263)				Non-factory CEOs (N=696)				Difference			
	Mean		Median		Mean		Median		Mean		Median		Mean		Median	
CAR[-1,+1]	1.349	***	0.665	***	2.281	***	1.046	***	0.997	***	0.479	***	1.283	***	0.567	**
CAR[-2,+2]	1.454	***	0.520	***	2.498	***	1.604	***	1.059	***	0.241	**	1.440	**	1.362	***
	Internal CEO Sample (N=1,406)				Factory CEOs (N=221)				Non-factory CEOs (N=1,185)				Difference			
	Mean		Median		Mean		Median		Mean		Median		Mean		Median	
CAR[-1,+1]	0.077		0.001		0.240		-0.057		0.046		0.004		0.193		-0.061	
CAR[-2,+2]	0.069		-0.206		0.138		-0.276		0.057		-0.197		0.081		-0.079	

Table 4: Announcement Returns – Univariate Comparison (continued)

Panel C: KeyExec and non-KeyExec at previous firm

	KeyExec at Previous Firm (N=1,289)		Factory CEOs (N=247)		Non-factory CEOs (N=1,042)		Difference	
	Mean	Median	Mean	Median	Mean	Median	Mean	Median
CAR[-1,+1]	0.561 ***	0.152 **	1.717 ***	0.353 ***	0.286 *	0.088	1.430 ***	0.265 **
CAR[-2,+2]	0.653 ***	0.084 *	1.676 ***	0.517 ***	0.411 **	-0.048	1.265 ***	0.565 **
	Non-KeyExec at Previous Firm (N=1,076)		Factory CEOs (N=237)		Non-factory CEOs (N=839)		Difference	
	Mean	Median	Mean	Median	Mean	Median	Mean	Median
CAR[-1,+1]	0.631 ***	0.263 ***	0.965 **	0.614 **	0.537 ***	0.219 *	0.428	0.395
CAR[-2,+2]	0.604 ***	0.030	1.154 **	0.340 **	0.448 *	-0.076	0.706	0.416

Panel D: Factory CEOs partitioned based on the number of years spent at the CEO factory firms

	Years at factory > median (N=240)		Years at factory <= median (N=244)		Difference	
	Mean	Median	Mean	Median	Mean	Median
CAR[-1,+1]	1.828 ***	0.623 ***	0.878 **	0.348 *	0.950 *	0.275
CAR[-2,+2]	1.990 ***	0.956 ***	0.861 *	0.263	1.129 *	0.693

Panel E: Factory CEOs partitioned based on the number of years left from the CEO factory firms

	Years left factory <= median (N=242)		Years left factory > median (N=242)		Difference	
	Mean	Median	Mean	Median	Mean	Median
CAR[-1,+1]	1.892 ***	1.069 ***	0.806 **	0.009	1.086 *	1.059 **
CAR[-2,+2]	1.736 ***	0.691 ***	1.105 **	0.262	0.631	0.428

Table 4: Announcement Returns – Univariate Comparison (continued)

Panel F: Top5 Factory CEOs, Top6-30 Factory CEOs, and Non-factory CEOs

	(1) Top5 Factory CEOs (N=195)				(2) Top6-30 Factory CEOs (N=289)				(3) Non-factory CEOs (N=1,881)				(1) - (2)		(1) - (3)			(2) - (3)		
	Mean		Median		Mean		Median		Mean		Median		Mean	Median	Mean		Median	Mean		Median	
CAR[-1,+1]	1.460	***	0.284	*	1.274	***	0.590	***	0.398	***	0.149	*	0.186	-0.306	1.062	**	0.135	0.876	**	0.441	**
CAR[-2,+2]	1.438	***	0.409	**	1.409	***	0.517	***	0.428	***	-0.058		0.029	-0.108	1.010	*	0.467	*	0.981	**	0.576	**

Table 5: Factory CEOs and Announcement Returns

This table presents OLS regressions for the sample of 2,365 CEO appointments between 1992 and 2010. The dependent variable is CAR, the cumulative abnormal returns from one day before to one day after the CEO appointment. Factory CEO is an indicator variable that equals one if the CEO has worked at any of the top thirty firms that produce the most number of CEOs, and zero otherwise. The remaining variable definitions are in Appendix. All regressions control for calendar-year fixed effects and 12 Fama-French industry fixed effects whose coefficients are suppressed for brevity. P-values based on standard errors adjusted for heteroskedasticity (White, 1980) and firm clustering are reported in parentheses. ***, **, and * stand for statistical significance at the 1%, 5%, and 10% level, respectively.

	(1)	(2)	(3)
Factory CEO (0,1)	1.045***	0.956***	0.758**
	(0.002)	(0.007)	(0.032)
Firm size		-0.065	-0.042
		(0.477)	(0.650)
Tobin's Q		-0.039	-0.021
		(0.770)	(0.873)
Leverage		0.692	0.826
		(0.415)	(0.328)
ROA		-0.941	-0.401
		(0.607)	(0.826)
BHAR		-2.292***	-2.177***
		(0.000)	(0.000)
External CEO			1.325***
			(0.000)
KeyExec at last job			0.700**
			(0.021)
Male			0.055
			(0.939)
Log(CEO age)			-0.633
			(0.559)
MBA			-0.389
			(0.165)
Elite School			0.485
			(0.118)
Constant	0.356**	0.487	1.802
	(0.014)	(0.684)	(0.678)
Year Fixed Effect	No	Yes	Yes
Industry Fixed Effect	No	Yes	Yes
Observations	2,365	2,365	2,365
Adjusted R-squared	0.004	0.016	0.023

Table 6: Factory CEOs and Announcement Returns: Interaction Terms

This table presents OLS regressions for the sample of 2,365 CEO appointments between 1992 and 2010. The dependent variable is CAR, the cumulative abnormal returns from one day before to one day after the CEO appointment. Factory CEO is an indicator variable that equals one if the CEO has worked at any of the top thirty firms that produce the most number of CEOs, and zero otherwise. The remaining variable definitions are in Appendix. All regressions control for calendar-year fixed effects and 12 Fama-French industry fixed effects whose coefficients are suppressed for brevity. P-values based on standard errors adjusted for heteroskedasticity (White, 1980) and firm clustering are reported in parentheses. ***, **, and * stand for statistical significance at the 1%, 5%, and 10% level, respectively.

	(1)	(2)	(3)
Factory CEO (0,1)	0.672*	0.255	0.086
	(0.052)	(0.591)	(0.862)
Factory CEO * Abnormal stock return	-3.020**		
	(0.019)		
Factory CEO * External CEO		1.102*	
		(0.092)	
Factory CEO * KeyExec at last job			1.288*
			(0.056)
Firm size (log mktcap)	-0.050	-0.020	-0.047
	(0.590)	(0.821)	(0.611)
Tobin's Q	-0.015	0.002	-0.015
	(0.911)	(0.988)	(0.909)
Leverage	0.791	0.627	0.797
	(0.349)	(0.418)	(0.344)
ROA	-0.395	-0.736	-0.286
	(0.827)	(0.568)	(0.875)
BHAR	-1.444**	-2.277***	-2.171***
	(0.021)	(0.000)	(0.000)
External CEO	1.296***	1.061***	1.351***
	(0.000)	(0.001)	(0.000)
KeyExec at last job	0.681**	0.649**	0.444
	(0.024)	(0.023)	(0.170)
Male	0.028	0.144	0.073
	(0.969)	(0.855)	(0.920)
Log(CEO age)	-0.633	-1.044	-0.584
	(0.559)	(0.300)	(0.589)
MBA	-0.382	-0.408	-0.381
	(0.172)	(0.146)	(0.174)
Elite School	0.491	0.525*	0.480
	(0.112)	(0.094)	(0.121)
Constant	1.782	3.570	1.854
	(0.680)	(0.373)	(0.668)
Year Fixed Effect	Yes	Yes	Yes
Industry Fixed Effect	Yes	Yes	Yes
Observations	2,365	2,365	2,365
Adjusted R-squared	0.027	0.026	0.025

Table 7: Factory CEOs and Announcement Returns: Years Worked at/Left from Factory Firms

This table presents OLS regressions for the sample of 2,365 CEO appointments between 1992 and 2010. The dependent variable is CAR, the cumulative abnormal returns from one day before to one day after the CEO appointment. Factory CEO is an indicator variable that equals one if the CEO has worked at any of the top thirty firms that produce the most number of CEOs, and zero otherwise. The remaining variable definitions are in Appendix. All regressions control for calendar-year fixed effects and 12 Fama-French industry fixed effects whose coefficients are suppressed for brevity. P-values based on standard errors adjusted for heteroskedasticity (White, 1980) and firm clustering are reported in parentheses. ***, **, and * stand for statistical significance at the 1%, 5%, and 10% level, respectively.

Table 7: Factory CEOs and Announcement Returns: Years Worked at/Left from Factory Firms (continued)

	(1)	(2)	(3)	(4)
Factory CEO (0,1)	-0.135	0.375	1.398***	1.345***
	(0.796)	(0.398)	(0.003)	(0.005)
Factory CEO (0,1) * # of years at factory firms	0.071**			
	(0.038)			
Factory CEO (0,1) * Indicator (# of years at factory firms>median)		0.967*		
		(0.096)		
Factory CEO (0,1) * # of years since leaving factory firms			-0.081**	
			(0.043)	
Factory CEO (0,1) * Indicator (# of years since leaving factory firms>median)				-1.119*
				(0.065)
Firm size (log mktcap)	-0.067	-0.064	-0.066	-0.064
	(0.482)	(0.493)	(0.484)	(0.495)
Tobin's Q	-0.017	-0.037	-0.011	-0.011
	(0.898)	(0.748)	(0.934)	(0.933)
Leverage	0.824	0.926	0.851	0.837
	(0.330)	(0.265)	(0.312)	(0.322)
ROA	-0.347	-0.487	-0.421	-0.443
	(0.849)	(0.715)	(0.817)	(0.808)
BHAR	-2.153***	-2.284***	-2.159***	-2.162***
	(0.000)	(0.000)	(0.000)	(0.000)
External CEO	1.312***	1.246***	1.301***	1.313***
	(0.000)	(0.000)	(0.000)	(0.000)
KeyExec at last job	0.703**	0.662**	0.715**	0.713**
	(0.020)	(0.021)	(0.018)	(0.019)
Male	0.060	0.413	0.131	0.105
	(0.935)	(0.606)	(0.857)	(0.885)
Log(CEO age)	-0.830	-1.031	-0.436	-0.527
	(0.444)	(0.313)	(0.687)	(0.626)
MBA	-0.361	-0.455	-0.381	-0.383
	(0.199)	(0.109)	(0.174)	(0.172)
Elite School	0.490	0.552*	0.500	0.490
	(0.114)	(0.083)	(0.107)	(0.114)
Constant	2.680	3.819	0.987	1.357
	(0.538)	(0.362)	(0.819)	(0.754)
Year Fixed Effect	Yes	Yes	Yes	Yes
Industry Fixed Effect	Yes	Yes	Yes	Yes
Observations	2,365	2,365	2,365	2,365
Adjusted R-squared	0.025	0.024	0.025	0.024

Table 8: Factory CEOs and Long-run ROA

This table presents OLS regressions for the sample of 2,262 CEO appointments between 1992 and 2010. The dependent variable is the three-year average industry-adjusted ROA following the CEO appointment. Factory CEO is an indicator variable that equals one if the CEO has worked at any of the top thirty firms that produce the most number of CEOs, and zero otherwise. The remaining variable definitions are in Appendix. All regressions control for calendar-year fixed effects and 12 Fama-French industry fixed effects whose coefficients are suppressed for brevity. *P*-values based on standard errors adjusted for heteroskedasticity (White, 1980) and firm clustering are reported in parentheses. ***, **, and * stand for statistical significance at the 1%, 5%, and 10% level, respectively.

	(1)	(2)	(3)	(4)
Factory CEO (0,1)	0.015***	0.012**	0.014***	0.009**
	(0.008)	(0.013)	(0.006)	(0.042)
Industry-adjusted ROA in the previous 3 years				0.338***
				(0.000)
Firm size (log mktcap)		0.005***	0.005***	0.004***
		(0.000)	(0.000)	(0.001)
Tobin's Q		0.018***	0.017***	0.016***
		(0.000)	(0.000)	(0.000)
Leverage		0.049***	0.048***	0.053***
		(0.000)	(0.000)	(0.000)
ROA		0.280***	0.275***	0.037
		(0.000)	(0.000)	(0.300)
BHAR		0.027***	0.025***	0.027***
		(0.000)	(0.000)	(0.000)
External CEO			-0.008**	-0.008**
			(0.033)	(0.016)
KeyExec at last job			-0.002	-0.004
			(0.557)	(0.246)
Male			0.010	0.008
			(0.311)	(0.339)
Log(CEO age)			-0.013	-0.008
			(0.379)	(0.562)
MBA			0.009**	0.004
			(0.026)	(0.251)
Elite School			-0.013***	-0.009**
			(0.001)	(0.018)
Constant	0.033***	-0.090***	-0.042	-0.049
	(0.000)	(0.000)	(0.488)	(0.375)
Year Fixed Effect	No	Yes	Yes	Yes
Industry Fixed Effect	No	Yes	Yes	Yes
Observations	2,262	2,262	2,262	2,262
Adjusted R-squared	0.003	0.279	0.283	0.424

Table 9: Corporate Policy Convergence

This table presents OLS regressions for the sample of 484 factory CEO appointments between 1992 and 2010. The dependent variables are the average corporate policy measures (R&D, CAPEX, AQC, Leverage, Dividend) of the focal firm in the three years after the factory CEO appointment. Policy of factory $firm_{1/2/3}$ is the equal-weighted/value-weighted/most recent factory experience of corporate policy measures (R&D, CAPEX, AQC, Leverage, Dividend) during the years that the factory CEO worked at the factory firms. The remaining variable definitions are in Appendix. All regressions control for calendar-year fixed effects and 12 Fama-French industry fixed effects whose coefficients are suppressed for brevity. P-values based on standard errors adjusted for heteroskedasticity (White, 1980) and firm clustering are reported in parentheses. ***, **, and * stand for statistical significance at the 1%, 5%, and 10% level, respectively.

Table 9: Corporate Policy Convergence (continued)

Panel A: Investment policies

VARIABLES	R&D			CAPEX			AQC		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Policy of factory firm$_1$ - Policy of focal firm(at t-1)	0.174***			0.062**			0.158*		
	(0.010)			(0.042)			(0.085)		
Policy of factory firm$_2$ - Policy of focal firm(at t-1)		0.172***			0.058*			0.138*	
		(0.006)			(0.065)			(0.099)	
Policy of factory firm$_3$ - Policy of focal firm(at t-1)			0.161**			0.066**			0.139*
			(0.013)			(0.028)			(0.078)
Policy of focal firm (at t-1)	0.938***	0.937***	0.924***	0.379***	0.375***	0.382***	0.240**	0.219**	0.221**
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.018)	(0.014)	(0.013)
Firm size	0.000	0.000	-0.000	-0.002***	-0.002***	-0.002***	-0.003***	-0.003***	-0.003***
	(0.972)	(0.910)	(0.961)	(0.006)	(0.009)	(0.009)	(0.005)	(0.005)	(0.004)
Firm age	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	(0.455)	(0.471)	(0.459)	(0.604)	(0.607)	(0.560)	(0.479)	(0.501)	(0.481)
Tobin's Q	0.003***	0.003***	0.003***	0.001	0.001	0.001	0.000	0.000	0.000
	(0.004)	(0.004)	(0.003)	(0.253)	(0.258)	(0.270)	(0.754)	(0.787)	(0.765)
Sales growth	0.008	0.008	0.008	0.007	0.007	0.007	-0.002	-0.002	-0.002
	(0.186)	(0.183)	(0.208)	(0.267)	(0.270)	(0.249)	(0.679)	(0.672)	(0.674)
Leverage	-0.008	-0.007	-0.008	-0.001	-0.001	-0.001	-0.016**	-0.016**	-0.016**
	(0.317)	(0.351)	(0.301)	(0.874)	(0.889)	(0.888)	(0.046)	(0.049)	(0.048)
ROA	-0.049***	-0.049***	-0.050***	0.015	0.015	0.015	0.035**	0.035**	0.034**
	(0.009)	(0.009)	(0.009)	(0.155)	(0.170)	(0.149)	(0.016)	(0.015)	(0.017)
Asset tangibility	-0.005	-0.005	-0.005	0.065***	0.065***	0.065***	-0.028***	-0.028***	-0.028***
	(0.555)	(0.515)	(0.525)	(0.000)	(0.000)	(0.000)	(0.007)	(0.006)	(0.006)
Constant	-0.003	-0.005	-0.001	0.010	0.010	0.011	0.121***	0.121***	0.116***
	(0.787)	(0.707)	(0.945)	(0.395)	(0.402)	(0.329)	(0.000)	(0.000)	(0.000)
Year Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	484	484	484	484	484	484	484	484	484
Adjusted R-squared	0.756	0.756	0.756	0.581	0.580	0.582	0.123	0.121	0.123

Table 9: Corporate Policy Convergence (continued)

Panel B: Financial policies

VARIABLES	Leverage			Dividend		
	(1)	(2)	(3)	(4)	(5)	(6)
Policy of factory $firm_1$ - Policy of focal firm (at t-1)	0.090*			0.079**		
	(0.064)			(0.015)		
Policy of factory $firm_2$ - Policy of focal firm (at t-1)		0.086*			0.042	
		(0.064)			(0.164)	
Policy of factory $firm_3$ - Policy of focal firm(at t-1)			0.112**			0.090***
			(0.019)			(0.005)
Policy of focal firm (at t-1)				0.389***	0.356***	0.400***
				(0.000)	(0.000)	(0.000)
Firm size	0.005	0.005	0.005	0.136***	0.141***	0.142***
	(0.153)	(0.174)	(0.170)	(0.000)	(0.000)	(0.000)
Firm age	-0.013*	-0.013*	-0.013*	0.178*	0.175*	0.180**
	(0.087)	(0.073)	(0.084)	(0.052)	(0.059)	(0.049)
Tobin's Q	0.005	0.005	0.005	0.005	-0.001	0.009
	(0.304)	(0.280)	(0.255)	(0.898)	(0.976)	(0.832)
Sales growth	0.017	0.016	0.016	-0.199	-0.182	-0.215
	(0.671)	(0.678)	(0.687)	(0.299)	(0.342)	(0.265)
Leverage	0.826***	0.818***	0.839***	0.071	0.091	0.067
	(0.000)	(0.000)	(0.000)	(0.839)	(0.795)	(0.849)
ROA	0.028	0.029	0.024	1.733***	1.721***	1.726***
	(0.732)	(0.718)	(0.771)	(0.000)	(0.000)	(0.000)
Asset tangibility	-0.002	-0.000	-0.001	0.698*	0.702*	0.626
	(0.966)	(0.995)	(0.976)	(0.085)	(0.083)	(0.124)
Constant	0.129***	0.130***	0.118***	-0.951**	-0.918**	-0.968**
	(0.002)	(0.002)	(0.006)	(0.025)	(0.031)	(0.022)
Year Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes
Observations	484	484	484	484	484	484
Adjusted R-squared	0.604	0.605	0.607	0.419	0.414	0.422

Table 10: Corporate Policy Convergence Prior to CEO Appointment

This table presents OLS regressions for the sample of 484 factory CEO appointments between 1992 and 2010. The dependent variables are the average corporate policy measures (R&D, CAPEX, AQC, Leverage, Dividend) of the focal firm in the year prior to the factory CEO appointment. Policy of factory $firm_{1/2/3}$ is the equal-weighted/value-weighted/most recent factory experience of corporate policy measures (R&D, CAPEX, AQC, Leverage, Dividend) during the years that the factory CEO worked at the factory firms. The remaining variable definitions are in Appendix. All regressions control for calendar-year fixed effects and 12 Fama-French industry fixed effects whose coefficients are suppressed for brevity. P-values based on standard errors adjusted for heteroskedasticity (White 1980) and firm clustering are reported in parentheses. ***, **, and * stand for statistical significance at the 1%, 5%, and 10% level, respectively.

Table 10: Corporate Policy Convergence Prior to CEO Appointment (continued)

Panel A: Investment policies

VARIABLES	R&D			CAPEX			AQC		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Policy of factory firm$_1$ - Policy of focal firm (at t-2)	0.084			-0.003			-0.120		
	(0.105)			(0.929)			(0.360)		
Policy of factory firm$_2$ - Policy of focal firm (at t-2)		0.079			-0.005			-0.045	
		(0.128)			(0.894)			(0.727)	
Policy of factory firm$_3$ - Policy of focal firm (at t-2)			0.093*			-0.003			-0.038
			(0.075)			(0.923)			(0.724)
Policy of focal firm (at t-2)	0.992***	0.988***	0.997***	0.654***	0.653***	0.654***	-0.071	0.003	0.010
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.596)	(0.984)	(0.932)
Firm size	-0.000	-0.000	-0.000	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001
	(0.718)	(0.757)	(0.663)	(0.419)	(0.423)	(0.422)	(0.679)	(0.694)	(0.698)
Firm age	-0.003**	-0.003**	-0.003**	0.001	0.001	0.001	-0.003	-0.003	-0.003
	(0.024)	(0.024)	(0.023)	(0.488)	(0.489)	(0.488)	(0.362)	(0.358)	(0.352)
Tobin's Q	-0.001	-0.001	-0.001	0.002*	0.002*	0.002*	-0.000	-0.000	-0.000
	(0.250)	(0.253)	(0.246)	(0.066)	(0.065)	(0.066)	(0.872)	(0.895)	(0.891)
Sales growth	0.000	0.000	0.000	0.004	0.004	0.004	0.005	0.005	0.005
	(0.991)	(0.969)	(0.982)	(0.410)	(0.410)	(0.410)	(0.428)	(0.422)	(0.428)
Leverage	0.010	0.010	0.010	0.005	0.005	0.005	-0.012	-0.012	-0.012
	(0.219)	(0.215)	(0.207)	(0.568)	(0.571)	(0.569)	(0.528)	(0.517)	(0.523)
ROA	0.046**	0.046**	0.046**	-0.018	-0.018	-0.018	0.044***	0.043***	0.044***
	(0.013)	(0.012)	(0.012)	(0.413)	(0.416)	(0.414)	(0.005)	(0.006)	(0.006)
Asset tangibility	-0.006	-0.007	-0.007	0.032**	0.032**	0.032**	-0.037**	-0.036**	-0.036**
	(0.265)	(0.240)	(0.261)	(0.014)	(0.014)	(0.014)	(0.028)	(0.029)	(0.029)
Constant	0.014*	0.014	0.015*	0.010	0.010	0.010	0.014	0.011	0.012
	(0.095)	(0.103)	(0.086)	(0.349)	(0.352)	(0.340)	(0.469)	(0.591)	(0.559)
Year Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	484	484	484	484	484	484	484	484	484
Adjusted R-squared	0.881	0.880	0.881	0.675	0.675	0.675	0.025	0.023	0.023

Table 10: Corporate Policy Convergence Prior to CEO Appointment (continued)

Panel B: Financial policies

VARIABLES	Leverage			Dividend		
	(1)	(2)	(3)	(4)	(5)	(6)
Policy of factory $firm_1$ - Policy of focal firm (at t-2)	0.056			-0.015		
	(0.142)			(0.587)		
Policy of factory $firm_2$ - Policy of focal firm (at t-2)		0.060			-0.002	
		(0.127)			(0.938)	
Policy of factory $firm_3$ - Policy of focal firm (at t-2)			0.046			-0.004
			(0.193)			(0.909)
Policy of focal firm (at t-2)				0.856***	0.866***	0.865***
				(0.000)	(0.000)	(0.000)
Firm size	0.001	0.000	0.001	0.021	0.019	0.019
	(0.879)	(0.945)	(0.868)	(0.580)	(0.600)	(0.598)
Firm age	0.005	0.005	0.005	0.130*	0.132*	0.131*
	(0.374)	(0.385)	(0.380)	(0.059)	(0.056)	(0.058)
Tobin's Q	0.003	0.003	0.003	-0.018	-0.018	-0.018
	(0.163)	(0.155)	(0.170)	(0.235)	(0.245)	(0.243)
Sales growth	-0.008	-0.008	-0.008	-0.004	-0.010	-0.009
	(0.728)	(0.709)	(0.714)	(0.967)	(0.924)	(0.932)
Leverage	0.979***	0.980***	0.966***	0.372	0.368	0.369
	(0.000)	(0.000)	(0.000)	(0.361)	(0.367)	(0.366)
ROA	-0.088	-0.087	-0.088	0.091	0.103	0.100
	(0.223)	(0.232)	(0.223)	(0.757)	(0.727)	(0.738)
Asset tangibility	0.011	0.013	0.011	0.274	0.272	0.276
	(0.751)	(0.705)	(0.761)	(0.534)	(0.535)	(0.526)
Constant	-0.106***	-0.107***	-0.106***	0.116	0.102	0.103
	(0.004)	(0.004)	(0.004)	(0.855)	(0.873)	(0.872)
Year Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes
Observations	484	484	484	484	484	484
Adjusted R-squared	0.788	0.788	0.787	0.617	0.617	0.617

Table 11: Corporate Policy Convergence: Random Factory Firms

This table presents OLS regressions for the sample of 484 factory CEO appointments between 1992 and 2010. The dependent variables are the average corporate policy measures (R&D, CAPEX, AQC, Leverage, Dividend) of the focal firm in the year prior to the factory CEO appointment. Policy of random factory $firm_{1/2/3}$ is the equal-weighted/value-weighted/most recent factory experience of corporate policy measures (R&D, CAPEX, AQC, Leverage, Dividend) during the years that the factory CEO worked at the randomly selected factory firms. The remaining variable definitions are in Appendix. All regressions control for calendar-year fixed effects and 12 Fama-French industry fixed effects whose coefficients are suppressed for brevity. P-values based on standard errors adjusted for heteroskedasticity (White, 1980) and firm clustering are reported in parentheses. ***, **, and * stand for statistical significance at the 1%, 5%, and 10% level, respectively.

Table 11: Corporate Policy Convergence: Randomly Assigned Factory Firms

Panel A: Investment policies

VARIABLES	R&D			CAPEX			AQC		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Policy of random factory firm$_1$ - Policy of focal firm (at t-1)	0.050			-0.014			0.147		
	(0.255)			(0.639)			(0.182)		
Policy of random factory firm$_2$ - Policy of focal firm (at t-1)		0.065			-0.011			0.092	
		(0.144)			(0.727)			(0.387)	
Policy of random factory firm$_3$ - Policy of focal firm(at t-1)			0.063			-0.001			0.094
			(0.140)			(0.980)			(0.334)
Policy of focal firm (at t-1)	0.849***	0.862***	0.860***	0.295***	0.299***	0.308***	0.218*	0.164	0.165
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.069)	(0.164)	(0.123)
Firm size	-0.000	-0.000	-0.000	-0.002**	-0.002**	-0.002**	-0.003***	-0.003***	-0.003***
	(0.866)	(0.880)	(0.901)	(0.015)	(0.015)	(0.016)	(0.005)	(0.004)	(0.005)
Firm age	0.001	0.001	0.001	0.000	0.000	0.000	0.003	0.003	0.003
	(0.436)	(0.430)	(0.423)	(0.820)	(0.829)	(0.828)	(0.166)	(0.155)	(0.169)
Tobin's Q	0.003***	0.003***	0.003***	0.001	0.001	0.001	-0.000	-0.000	-0.000
	(0.007)	(0.008)	(0.008)	(0.143)	(0.146)	(0.154)	(0.918)	(0.943)	(0.928)
Sales growth	0.009	0.009	0.009	0.005	0.005	0.005	-0.000	-0.000	-0.000
	(0.202)	(0.181)	(0.182)	(0.477)	(0.479)	(0.462)	(0.996)	(0.977)	(0.988)
Leverage	-0.012	-0.012	-0.012	-0.003	-0.003	-0.003	-0.017*	-0.016*	-0.017*
	(0.157)	(0.161)	(0.140)	(0.688)	(0.697)	(0.717)	(0.069)	(0.083)	(0.077)
ROA	-0.046**	-0.046**	-0.046**	0.015	0.015	0.016	0.052***	0.053***	0.052***
	(0.014)	(0.015)	(0.014)	(0.178)	(0.171)	(0.162)	(0.000)	(0.000)	(0.000)
Asset tangibility	-0.007	-0.007	-0.007	0.064***	0.064***	0.064***	-0.029**	-0.029**	-0.029**
	(0.412)	(0.401)	(0.400)	(0.000)	(0.000)	(0.000)	(0.016)	(0.018)	(0.017)
Constant	0.003	0.003	0.004	0.019	0.018	0.017	0.163***	0.164***	0.163***
	(0.792)	(0.814)	(0.752)	(0.143)	(0.152)	(0.167)	(0.000)	(0.000)	(0.000)
Year Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	471	471	471	471	471	471	471	471	471
Adjusted R-squared	0.746	0.746	0.746	0.529	0.529	0.529	0.119	0.116	0.116

Table 11: Corporate Policy Convergence: Randomly Assigned Factory Firms (continued)

Panel B: Financial policies

VARIABLES	Leverage			Dividend		
	(1)	(2)	(3)	(4)	(5)	(6)
Policy of random factory firm$_1$ - Policy of focal firm (at t-1)	-0.004			-0.042*		
	(0.920)			(0.095)		
Policy of random factory firm$_2$ - Policy of focal firm (at t-1)		-0.006			-0.043	
		(0.873)			(0.109)	
Policy of random factory firm$_3$ - Policy of focal firm(at t-1)			-0.007			-0.055*
			(0.844)			(0.070)
Policy of focal firm (at t-1)				0.259***	0.258***	0.248***
				(0.001)	(0.001)	(0.002)
Firm size	0.007*	0.007*	0.007*	0.151***	0.149***	0.145***
	(0.079)	(0.076)	(0.076)	(0.000)	(0.000)	(0.000)
Firm age	-0.014*	-0.014*	-0.014*	0.189**	0.188**	0.196**
	(0.083)	(0.083)	(0.084)	(0.044)	(0.045)	(0.040)
Tobin's Q	0.003	0.003	0.003	-0.013	-0.013	-0.012
	(0.485)	(0.491)	(0.496)	(0.753)	(0.761)	(0.771)
Sales growth	0.017	0.018	0.018	-0.188	-0.187	-0.189
	(0.685)	(0.683)	(0.682)	(0.319)	(0.321)	(0.314)
Leverage	0.741***	0.739***	0.738***	0.063	0.068	0.044
	(0.000)	(0.000)	(0.000)	(0.858)	(0.847)	(0.900)
ROA	0.031	0.031	0.031	1.705***	1.719***	1.722***
	(0.704)	(0.702)	(0.703)	(0.000)	(0.000)	(0.000)
Asset tangibility	0.010	0.010	0.010	0.857*	0.847*	0.883**
	(0.821)	(0.820)	(0.821)	(0.051)	(0.052)	(0.042)
Constant	0.144***	0.145***	0.145***	-0.872**	-0.823*	-0.813*
	(0.001)	(0.001)	(0.001)	(0.044)	(0.060)	(0.061)
Year Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effect	Yes	Yes	Yes	Yes	Yes	Yes
Observations	471	471	471	471	471	471
Adjusted R-squared	0.602	0.602	0.602	0.405	0.404	0.404

Table 12: Factory CEOs and CEO Compensation

This table presents OLS regressions for the sample of 2,365 CEO appointments between 1992 and 2010. The dependent variable in column (1) – (3) is the natural log of base salary, and the dependent variable in column (4) – (6) is the natural log of total compensation. Factory CEO is an indicator variable that equals one if the CEO has worked at any of the top thirty firms that produce the most number of CEOs, and zero otherwise. The remaining variable definitions are in Appendix. All regressions control for calendar-year fixed effects and 12 Fama-French industry fixed effects whose coefficients are suppressed for brevity. P-values based on standard errors adjusted for heteroskedasticity (White, 1980) and firm clustering are reported in parentheses. ***, **, and * stand for statistical significance at the 1%, 5%, and 10% level, respectively.

Table 12: Factory CEOs and CEO Compensation (continued)

	Log (Salary)			Log (TDC)		
	(1)	(2)	(3)	(4)	(5)	(6)
Factory CEO (0,1)	0.183***	0.070***	0.057**	0.442***	0.135***	0.096**
	(0.000)	(0.002)	(0.012)	(0.000)	(0.000)	(0.011)
Firm size		0.187***	0.186***		0.398***	0.401***
		(0.000)	(0.000)		(0.000)	(0.000)
Tobin's Q		-0.056***	-0.053***		-0.009	-0.006
		(0.000)	(0.000)		(0.572)	(0.709)
Leverage		0.102*	0.106*		0.415***	0.439***
		(0.080)	(0.073)		(0.000)	(0.000)
ROA		0.013	0.044		-0.307*	-0.205
		(0.876)	(0.612)		(0.078)	(0.233)
BHAR		-0.077**	-0.067*		-0.092	-0.068
		(0.034)	(0.066)		(0.119)	(0.249)
External CEO			0.072***			0.203***
			(0.001)			(0.000)
KeyExec at last job			0.062***			0.089***
			(0.004)			(0.007)
Male			-0.079**			0.021
			(0.031)			(0.800)
Log(CEO age)			0.214**			-0.013
			(0.020)			(0.923)
MBA			-0.001			0.053*
			(0.972)			(0.097)
Elite School			0.013			0.036
			(0.556)			(0.342)
Constant	6.336***	5.154***	4.328***	7.818***	4.525***	4.372***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Year Fixed Effect	No	Yes	Yes	No	Yes	Yes
Industry Fixed Effect	No	Yes	Yes	No	Yes	Yes
Observations	2,365	2,365	2,365	2,365	2,365	2,365
Adjusted R-squared	0.018	0.367	0.373	0.032	0.463	0.471