

# EFFECTS OF THE CEO'S TURNOVER AND COMPENSATION ON PERFORMANCE RISK

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## ABSTRACT

*In this study, we explore how the uncertainty around a CEO's performance affects the board's capacity to assess the executive's potential. We postulate that idiosyncratic risk yields more information content in performance while systematic risk yields lower information content. We present strong empirical evidence that both the frequency of CEO turnover and the turnover-performance sensitivity increase with idiosyncratic risk and decrease with systematic risk. We further examine the connections between CEO termination risk and remuneration and find that for CEOs who are retained, both pay-performance sensitivity and overall pay levels fall as turnover rates rise.*

**Keywords:** CEO's Turnover Performance; Compensation; Performance Risk

## INTRODUCTION

The authority given to a company's board of directors to recruit, compensate, and terminate the chief executive officer (CEO) is a cornerstone of good corporate governance. Comprehensive incentive schemes reflect these choice rights through formal compensation contracts and the board's discretionary ability to remove and replace current CEOs. The pay-performance-sensitivity (PPS) feature of CEOs' compensation contracts has been the subject of extensive research, with several studies examining the critical role that firm performance risk plays in optimal contract design. There is a substantial body of empirical research that examines the connections between CEO turnover and actual company performance, but far less effort has been put into identifying the specific pathways by which uncertainty about that performance can influence CEO decisions to leave. In this research, we add to the literature by identifying critical links between the risk of a firm's performance and the turnover of its chief executive officer.

Our study focuses on how the presence of performance risk affects the board's ability to gain insight into the CEO's hidden skills. In contrast to the standard view of risk found in the executive remuneration literature, this emphasis on the interplay between performance risk and the boards' ability to learn is novel. The standard compensation structure focuses on incentivizing executives to maximize returns for stockholders. In this context, performance risk is analogous to background noise when monitoring an executive's actions, and risk-averse executives should be compensated with a risk premium for carrying performance risk. CEO turnover choices use firm performance to learn about an individual's hidden skills, as opposed to the role firm performance plays in the

provision of incentives. The board's appraisal of the CEO's talent in comparison to the evaluated talent of potential successor CEOs is a critical factor in the board's decision to retain or fire the CEO. With this new lens, we can see how performance risk affects a board's ability to learn about a CEO's competence based on actual performance, rather than how it affects the risk premium required by risk-averse executives.

Our paper's central discovery is that the influence of performance risk on boards' capacity to infer CEO talent from firm performance is critically dependent on the nature of the risk itself. Firm performance is diagnostic of such talent, enabling boards to accurately assess CEO talent and to replace low talent incumbents, if the theory behind the paper is correct. The board's ability to infer CEO talent from performance becomes more constrained if volatility in performance outcomes is driven by factors unrelated to CEO talent (such as noise, economy-wide effects, etc.), making it more difficult to clearly distinguish an incumbent's talent level from the assessed talent of potential replacement CEOs.

We first examine a two-period model with symmetric learning regarding unknown CEO talent in order to disentangle these two primary economic forces. We determine the best way to fire a chief executive based on two types of risk: the kind that comes from the unknown quality of the CEO's skills and the kind that comes from beyond the CEO's influence. In terms of the correlation between performance risk and CEO turnover, the model generates three empirical conclusions. To begin, a wider range of CEO talent indicates a higher likelihood of CEO turnover. Firm performance becomes substantially more diagnostic about CEO quality when uncertainty over CEO talent grows relative to other sources of variability, allowing the board to more easily spot low talent incumbents and use their firing option when necessary. Second, factors outside of the CEO's control, such as the availability of talent, tend to reduce the likelihood of CEO turnover. From the perspective of learning about a CEO's talent from observable performance, such fluctuation reflects noise. The board's reluctance to exercise their firing option is increased when there is more noise, as this makes it harder to discriminate between the talent of incumbents and that of potential rookie CEOs. As the variance of the distribution of CEO talent rises, volatility unrelated to talent falls, and the sensitivity of CEO turnover to observed performance rises.

Our empirical research separates return volatility into its idiosyncratic and systematic parts, using stock returns as an empirical measure of business performance. We argue that idiosyncratic volatility represents the arrival of knowledge about the effect of CEO skill on company performance, while systematic volatility captures components of return variability that are independent of CEO talent and therefore outside of the CEO's sphere of influence. Given their divergent implications for the procedure of learning about CEO skill, we foresee that these two types of volatility have conflicting consequences on CEO turnover. We show strong empirical evidence that, after accounting for company performance, the likelihood of CEO turnover rises with idiosyncratic risk and falls with systematic risk.

As the information richness of performance increases with respect to learning about the CEO's skill, we expect and show that the sensitivity of turnover to performance likewise rises with idiosyncratic risk and falls with systematic risk. Higher performance risk from any source is often assumed to reduce pay-performance sensitivity due to risk-aversion factors, hence this finding contradicts the existing executive compensation literature. In our turnover context, risk influences learning and, depending on the origin of volatility, can either heighten or dull sensitivity to turnover-performance.

## **PRELIMINARY ASSUMPTIONS AND MODEL CONSTRUCTION**

A certain amount of innate ability is bestowed upon CEOs. While both the CEO and the company have an understanding of the distribution of CEO talent, only the CEO has any idea of the CEO's actual degree of talent (see also Gibbons and Murphy (1992), Holmstrom (1999), Hermalin and Weisbach (2008)). All market players have the same preconceived notions about CEOs, hence there is no ex-ante differentiation between them. The business has two distinct timeframes,  $t=1$  and  $t=2$ . At the start of the first phase, an agreement is signed between the company and the CEO.

## **INFORMATION GATHERING AND DESIGN OF THE MANDATORY SAMPLE TURNOVER**

It is not always easy to tell if a CEO change was involuntary, as involuntary changes are sometimes masked as retirements. Thus, classification necessitates manual data gathering from a variety of sources, including press releases. Turnovers are categorized as either "forced" or "routine" according to the criteria established by Parrino (1997).

## **THE IMPACT OF CEO TURNOVER ON RISK: AN EMPIRICAL ANALYSIS**

After accounting for differences in business performance, we find support for our hypothesis that the likelihood of CEO turnover is higher in Risk Idiosyncratic than in Risk Peer. Consider the CEO's term and the company's founding status to see if those factors moderate the effect of the two types of risk on CEO turnover. Several important control variables and year dummies are included in all specifications (definitions of all variables may be found in).

The empirical link between turnover-performance sensitivity and the likelihood of poor performance

Given that higher levels of idiosyncratic risk imply higher information content of performance with respect to talent, here explores the prediction that the sensitivity of turnover to performance increases in idiosyncratic risk and decreases in systematic risk.

## **CEO COMPENSATION AFTER A CHANGE IN LEADERSHIP**

In this section, model finds the best firing policy and CEO remuneration arrangement at the same time. This section concludes the empirical analysis of the relationship between the termination clause and CEO pay. We begin by investigating how much CEOs' pay is less performance-based because of the implicit incentives created by the fear of losing their jobs. We then investigate the relationship between CEOs' future salary and the likelihood of turnover.

### **FINAL THOUGHTS**

We examine the effect of performance risk on the board's capacity to ascertain the CEO's hidden skills in this article. The board's evaluation of the CEO's abilities plays a significant role in determining whether or not to keep the CEO in place. Our paper's central discovery is that the influence of performance risk on boards' capacity to infer CEO talent from firm performance is critically dependent on the nature of the risk itself.

Insightful comparisons can be made between our risk analysis and CEO turnover and the Jin (2002) risk analysis and CEO pay-performance sensitivity. Comparable to our work, Jin (2002) breaks down the volatility of stock returns into random and predictable elements. Using information from CEO compensation agreements, he demonstrates a negative correlation between idiosyncratic risk and pay-performance sensitivity, while finding minimal connection between systematic risk and incentive level. All (unhedged) sources of performance volatility imply risk that the CEO must be rewarded for bearing, hence these findings are consistent with the Jin (2002) model. This model predicts a traditional trade-off between CEO incentives and the cost of CEOs bearing risk. Volatility unrelated to CEO skill (i.e., systematic risk) is noise from a learning perspective, whereas higher volatility generated by characteristics related to CEO talent (i.e., idiosyncratic risk) makes business performance more diagnostic about talent in our context. Therefore, our research supplements Jin (2002) by investigating the effects of performance volatility in a new but comparable setting, therefore illuminating the various pathways via which such risk affects the contractual relationships between boards and CEOs.

Our empirical investigation is concluded in this section, where we examine connections between the termination clause and CEO pay. To begin, we demonstrate that the retention rate of CEOs increases with pay-performance sensitivity. Our model predicts that when the CEO faces a high risk of turnover, the CEO's implicit incentives are strong enough that further explicit incentives are unnecessary. We also show that the chance of CEO turnover has an inverse relationship with subsequent compensation levels, implying that a retained CEO may be forced to accept a salary drop as the turnover pressure increases. This is in line with the findings of Gao, Harford, and Li (2008), who demonstrate that salary reductions can serve as a temporary alternative to termination.

Finally, our analysis is relevant to the works of Jenter and Kanaan (2008), Kaplan and Minton (2006), who demonstrate that, contrary to the conventional idea of relative performance evaluation, the systematic component of returns considerably increases the chance of CEO

turnover. On the other hand, we look into the relationship between CEO turnover and both random and predictable swings in stock returns. To avoid the possibility of model misspecification and replicate the findings of Jenter and Kanaan (2008) and Kaplan and Minton (2006), we add the systematic component of returns into our empirical studies. However, there is no theory that we are aware of that associates systematic return volatility with infringements on relative performance evaluation. We provide evidence that is consistent with this story, including that the likelihood of turnover is decreasing in systematic risk, after controlling for idiosyncratic and systematic returns, and we emphasize that our analysis requires only that systematic return volatility impedes ability to learn about talent from performance.

This paper follows the following structure. The empirical consequences of our analysis of a two-period model are discussed. We present a summary of the information that served as the foundation for our empirical studies. We offer the empirical findings from our studies of the connections between CEO turnover and various types of risk, we present the findings from our studies of the connections between turnover and performance and risk. CEO compensation contract consequences of CEO departure decisions are discussed and the paper is summarized and concluded.

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