The Effect of CEO Overconfidence on Product Market Performance

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ABSTRACT

This paper provides empirical evidence that CEO overconfidence can play a role on firm product market performance. Some studies provide empirical evidence that irrational managers may engage in actions that can be detrimental to firm value while others suggest that an overconfident manager can increase firm value. This work analyzes the relationship between CEO overconfidence and within-industry sales performance of the firm, and find that higher overconfidence levels are associated with better product market performance.

Keywords: CEO Overconfidence, Competition, Product Market Performance

1. INTRODUCTION

Recent behavioral studies examine the relationship between less than fully rational managerial behavior and firm’s actions. This research explores how the actions of managers with biased self-assessment affect firm’s financial policies, investment, and mergers and acquisitions decisions. Studies show that overconfident managers engage in overinvestment and make value destroying acquisitions whereas others argue that it might be desirable for a firm to hire an overconfident manager as he can result in greater innovative success of the firm. Yet, we do not know much about how CEO overconfidence may impact firm product market performance. Since a CEO plays a crucial role in setting and implementing the strategy and actions of a firm, and most firms do not operate in monopolistic markets, understanding the effect of CEO overconfidence on competitive performance would appear to be an important issue for investigation.

We study the link between CEO overconfidence and firm competitive performance using firm-level data from 1996 to 2006. Following Malmendier and Tate (2005), we calculate managerial overconfidence of the CEO in terms of the moneyness of options granted to the executive. The intuition is that a risk-averse CEO should exercise his options early if the stock price is sufficiently high as he is under-diversified because he cannot trade his option grants or hedge the risk by short-selling firm stock. If a manager persistently fails to exercise his in-the-money options, he is considered as overconfident. Following a similar argument, we calculate the overconfidence level of a CEO by computing the ratio of the total number of days he fails to exercise his in-the-money options.

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options to the number of days his options are exercisable. A CEO is considered overconfident if his overconfidence level is greater than zero, i.e., he has nonzero number of days in which he fails to exercise his in-the-money options, though how overconfident he is changes with his overconfidence level. The testing strategy we use deals with the unobservable, time-varying industry effects through the adjustment of the variables by removing their mean industry effects in each year. Therefore, a firm’s performance and the overconfidence level of its CEO are measured relative to that of its industry-year rivals. We find that CEO overconfidence has a significant positive effect on performance; as CEO’s relative-to-industry overconfidence level increases, firm industry-adjusted sales growth increases. This finding suggests that overconfident CEOs help improve firm’s stance in the competitive environment.

The findings of this paper add to the research on competitive performance. A large literature examines the factors that influence firm product market decisions. Starting with Brander and Lewis (1986), several studies look at the interaction between firm capital structure and competitive performance. However, while we know a great deal about the effect of financial policies, we know very little about the impact of CEO characteristics - overconfidence in particular - on firm product market performance. This paper focuses on the consequences of CEO overconfidence on firms sales performance. Our approach here is closely related to Campello (2006) who uses relative-to-industry firm sales growth to proxy for product market performance.

The paper also contributes to the behavioral corporate finance literature. Beginning with Roll (1986), studies examine the role of managerial irrationality in corporate finance. In general findings suggest that overconfident managers may be detrimental to firm value (e.g., Ben-David et al. (2007), Malmendier and Tate (2008)). However, Englmaier (2004), Gervais et al. (2011), and Hirshleifer et al. (2012) argue that overconfident managers can increase firm value. This study complements the literature by measuring the biased managerial beliefs and their implications for firm product market decisions. Our proxy for overconfidence is similar to that of Malmendier and Tate (2005) who consider the overconfidence of a CEO as the persistent failure of the manager to reduce his exposure to company-specific risk. We build upon the Holder 67 variable in Malmendier and Tate (2005) and use CEO option holdings data in order to quantify overconfidence.

The rest of the paper is organized as follows. Section 2 summarizes the related literature and develops the hypotheses. Data and overconfidence measure are described in Section 3. In Section 4, we present the empirical evidence and Section 5 concludes.

2. RELATED LITERATURE AND HYPOTHESES DEVELOPMENT

2.1. Product Market Performance

Beginning with Brander and Lewis (1986) several studies have focused on debt financing and its consequences on product market performance. These papers report that debt financing leads to aggressive firm behavior in output markets (e.g., Maksimovic (1988)). On the other hand, studies like Chevalier (1995), Opler and Titman (1994) show that debt usage results in firms competing less aggressively. In a similar vein, Phillips (1995) and Kovenock and Phillips (1997) find that highly-leveraged firms tend to invest less aggressively. These studies also suggest that highly-leveraged firms will charge higher prices if they can. Recently, Campello (2006) argues that debt financing can both boost and hurt firm performance since there is a nonmonotonic relationship between debt financing and competitive behavior.

2.2. Managerial Irrationality

Beginning with Roll (1986), there have been a number of studies that look at the less than fully rational behavior of managers and their effects on corporate policies, and several findings emerge. Some empirical finding suggest
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