CEO overconfidence and investor sentiment

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Abstract

We analyze firms' investment decisions in a world where both managers and investors are affected by sentiment. In equilibrium, we show that higher managerial optimism leads to an increase in employment growth, especially in times of low investor sentiment. If managers are initially overcautious, however, this mechanism is value-enhancing for the firm. Using data on U.S. publicly traded companies, we find strong support for the model's predictions. We also show that the stock market does not correctly price managerial optimism, which generates profitable investment opportunities.

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Introduction

There are two seemingly contradictory frameworks in corporate finance. On the one hand, the primary source of irrationality seems to be on the investor side, which leads rational managers to maximize the short-term share price (Chirinko and Schaller, 2001; Baker, Stein, and Wurgler, 2003; Bolton, Scheinkman, and Xiong, 2006; Polk and Sapienza, 2009). On the other hand, however, managers can be overconfident, and then get punished by a rational capital market for destroying firm value (Malmendier and Tate, 2005; Brown and Sarma, 2007; Malmendier and Tate, 2008).

These two approaches take very different views about the role and quality of managers (Baker, Ruback, and Wurgler, 2004; Baker and Wurgler, 2011). When investors are prone to sentiment, managers should be insulated to achieve the flexibility necessary to make decisions that may be unpopular in the marketplace. If managers are overconfident, instead, they should be obligated to respond to market price signals. The stark contrast between the normative implications of these two approaches indicates that more work in the area is needed, possibly through a model that

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features both managerial and investor sentiment (Baker, Ruback, and Wurgler, 2004).

On the theoretical side, the main hurdle is to distinguish between overconfidence and agency issues (Baker and Wurgler, 2011). In Stein (2003), an empire-building manager will consider $(1+\gamma)f(K)$ rather than $f(K)$ alone, which reflects the preference for the private benefits that come with presiding over a larger firm (Jensen and Meckling, 1976; Grossman and Hart, 1988), rather than optimism. However, this specification is essentially identical to the objective function of an optimistic manager. To test the behavioral theories, then, one must separate the γ related to overconfidence and optimism from the γ that arises from agency issues.

Building on the moral hazard model of Pagano and Pica (2012), we tease out these two stories. We analyze firms' investment decisions in a world where both managers and investors are affected by sentiment. In equilibrium, we show that higher managerial optimism leads to an increase in employment growth, and the effect is particularly strong in times of low investor sentiment. This is because in the presence of optimistic investors, the firm receives additional funding and hires more workers. If, on top of that, the manager is also overconfident, he will face a higher wage than in the case where investor sentiment is low, which implies a smaller marginal effect of managerial sentiment on employment.

We also show that managerial optimism is not necessarily detrimental to shareholders. If managers are initially overcautious, an increase in optimism is actually value-enhancing for the firm. Ultimately, this mechanism should also affect the returns on the company stock. If the manager's type is unobservable ex-ante, stock returns should be higher for firms run by value-enhancing optimistic managers, who would then surprise the market with the positive impact of their investment policies.

To test these hypotheses, we consider data on U.S. publicly traded companies. In particular, we follow Malmendier and Tate (2005) and primarily define an optimistic manager as one who fails to exercise a five-year-old option that is at least 67% in-the-money in the fifth year. The intuition is that it should be optimal for the CEO to have exercised at least some portion of the package during or before the fifth year.

We acknowledge the fact that in 2006 the U.S. Securities and Exchange Commission (SEC) modified the disclosure requirements for executive compensation and stock ownership. In particular, the ruling's aim was to hinder managers' self-interested actions by mitigating the information asymmetry between investors and managers. In light of this consideration, we restrict our sample to the period from 2007 through 2016.

The results lend strong support to the model's predictions. We show that higher managerial sentiment is positively associated with employment growth. The results are robust to the inclusion of standard predictors such as cash flow and Tobin's q, and to a variety of fixed effects and clustering specifications. We also find that the effect is indeed inversely related to Baker and Wurgler's

(2006) measure of investor sentiment.

Interestingly, higher managerial sentiment is positively associated with the rate of growth of sales and earnings. This indicates that optimistic managers seem to run their firms better. Consistent with this interpretation, we find that the companies run by such managers earn positive risk-adjusted stock returns, and therefore generate profitable trading strategies.

This present work makes a number of contributions. To the best of our knowledge, this is the first paper that analyzes the interplay between managerial and investor sentiment, following the suggestion from Baker, Ruback, and Wurgler (2004). In particular, our focus on employment complements the results from Malmendier and Tate (2005), and adds new insights to the literature on finance and labor (Pagano and Pica, 2012; MacLean and Zhao, 2014; Benmelech, Bergman, and Seru, 2015).

The findings also speak to the literature on the underpricing of intangibles, such as employee satisfaction (Edmans, 2011), R&D expenditures (Lev and Sougiannis, 1996; Chan, Lakonishok, and Sougiannis, 2001), advertising (Chan, Lakonishok, and Sougiannis, 2001), patent citations (Deng, Lev, and Narin, 1999), and software development costs (Aboody and Lev, 1998). In this paper, we find a similar empirical pattern for companies run by optimistic managers. The results, then, lend support to the idea that the market does not price managerial skills correctly (Mueller, Ouimet, and Simintzi, 2017).