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# CEO overconfidence and dividend policy

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ABSTRACT

We develop a model of the dynamic interaction between CEO overconfidence and dividend policy. The model shows that an overconfident CEO views external financing as costly and hence builds financial slack for future investment needs by lowering the current dividend payout. Consistent with the main prediction, we find that the level of dividend payout is about one-sixth lower in firms managed by CEOs who are more likely to be overconfident. We document that this reduction in dividends associated with CEO overconfidence is greater in firms with lower growth opportunities and lower cash flow. We also show that the magnitude of the positive market reaction to a dividend-increase announcement is higher for firms with greater uncertainty about CEO overconfidence.



## 1. Introduction

The variation in dividend payouts over time and across firms remains one of the major unresolved puzzles in corporate finance, despite an extensive theoretical and empirical literature. In particular, the combined explanatory power of factors like agency problems, asymmetric information, and other market frictions, including taxes, is small compared to the total cross-sectional and time-series variation in dividend choices, leaving much to be explained (Allen and Michaely, 2003; Brav et al., 2005). We examine an alternative explanation based on differences in managerial beliefs. Following Malmendier and Tate (2008, 2005) and Malmendier et al. (2011), we classify managers as "overconfident" if they overinvest personal funds in their own company.[1]

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[1] The finding that people are overconfident is one of the most robust in the psychology of judgment. See De Bondt and Thaler (1995); Kahneman et al. (1982), and Russo and Schoemaker (1990). Overconfidence is defined either as an upward bias in expectations of future outcomes (overoptimism) or as overestimation of the precision of one's information and underestimation of risk. We focus on the first interpretation but our theoretical results obtain with either behavioral bias, as we explain later.

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While the existing literature has explored the implications of CEO overconfidence for investment, merger, and financing decisions, the implications for dividends remain largely unexplored. The literature on dividend policy generally makes it clear that investment and financing decisions alone do not uniquely determine dividends. So, on the one hand, an overconfident CEO may lower dividends if he or she perceives higher investment needs (Ben-David et al., 2007); on the other hand, the CEO may increase dividends if he or she expects higher cash flows from current investment (Wu and Liu, 2011). Thus, the impact of an overconfident CEO's beliefs on dividend policy is an open question, yet to be resolved conceptually and empirically.

We study this issue by developing a dynamic model of the interaction between dividend policy and CEO overconfidence. We show that an overconfident CEO views future external financing as more costly than internal funds and lowers the current dividend payout to increase the amount of internal capital available for future investment needs. This result is driven by the model's assumption that an overconfident CEO overestimates the value of new investments. The main testable prediction of the model is that an overconfident CEO pays lower dividends than does a rational CEO. The model also predicts the effect of CEO overconfidence on the dividend payout to be weaker for firms with higher growth opportunities. In addition, the model predicts the stock price response to announcements of dividend changes to be an increasing function of the informativeness of the announcement about CEO overconfidence.

We test the model's predictions using panel data of large US companies over the period, 1980–1994. We employ the measures of CEO overconfidence derived by Malmendier and Tate (2005, 2008). Our results indicate that the level of dividend payout is lower in firms managed by overconfident CEOs. The marginal reduction in dividend payout in firms managed by overconfident CEOs is about one-sixth of the median dividend payout for the firms in our sample.[2] This result is robust to alternative measures of CEO overconfidence and to several control variables.

We also examine the effect of CEO overconfidence on the relation between dividend policy and growth opportunities, cash flow, and the level of asymmetric information. Consistent with previous evidence, we find a negative relation between growth opportunities and dividend payout. However, the difference in the dividend payout between lower-growth and higher-growth firms is smaller in firms with overconfident CEOs. This finding is consistent with our model's prediction that CEO overconfidence plays a weaker role in higher-growth firms. We also find that the positive relation between dividend payout and cash flow, documented in previous studies, is stronger in firms with overconfident CEOs. This result suggests that overconfident CEOs may overestimate the ability of current cash flow to predict future cash flow. We find an inverse relation between dividend payout and information asymmetry that does not vary across rational and overconfident CEOs.

We conclude with an analysis of the stock market response to announcements of large dividend increases. We estimate a multivariate regression model to investigate the relation between CEO overconfidence and the stock-market response to the dividend-increase announcement. Our results indicate that the magnitude of the positive stock price response is higher for firms with uncertainty about CEO overconfidence than for firms whose CEOs have previously been identified as overconfident. This novel result is consistent with our hypothesis that dividends provide information about CEO overconfidence – dividend increases indicate lower CEO overconfidence – and that this informativeness is higher when there is greater uncertainty about CEO overconfidence.

We make three contributions to the dividend policy literature: First, we model and test the relation between managerial overconfidence and dividend policy to show that CEO overconfidence affects dividend policy. Second, to rule out alternative plausible explanations of our results, we develop a series of other predictions that have not been investigated in the literature. Our tests of these predictions strengthen the overconfidence-based interpretation of our results as well as those in related prior work (e.g., Malmendier and Tate, 2005, 2008). Specifically, we examine the effect of CEO overconfidence on the relation between dividend policy and cash flow, growth opportunities, and the level of asymmetric information. Third, the findings on the stock market response to announcements of dividend increases by overconfident CEOs indicate that the market recognizes the relation between CEO

[2] We call a CEO overconfident if he or she is identified so by our empirical measures, even though we recognize that it is difficult to measure overconfidence precisely and overconfidence is likely to be a continuous variable.