



Contents lists available at ScienceDirect

Research in Economics

journal homepage: www.elsevier.com/locate/rieFinancial leverage and managerial compensation: Evidence from the UK[☆]Gianluca Papa^a, Biagio Speciale^{a,b,*}^a ECARES, Université Libre de Bruxelles, Belgium^b FNRS, Belgium

ARTICLE INFO

Article history:

Received 8 January 2009

Accepted 11 March 2010

Keywords:

Principal-agent theory

Executive pay

Financial leverage

Asymmetric information

ABSTRACT

Using the data on a panel of quoted UK firms over the period 1995–2002, this paper studies the effects of financial leverage on managerial compensation. The change in the investors' expectations that caused the recent collapse of the stock market tech bubble has been used as a source of plausibly exogenous variation in the firm's debt. We find that pay-for-performance sensitivity is increasing in financial leverage, with the exception of the 10% most levered firms.

© 2010 University of Venice. Published by Elsevier Ltd. All rights reserved.

1. Introduction

This paper empirically studies the effects of financial leverage on managerial compensation. Since Jensen and Meckling (1976) the firm has been recognized as a nexus for a multitude of contracting relationships and the literature that followed their seminal paper recognized that managerial compensation depends on the conflict of interests between different contracting parties that are asymmetrically informed.

On the one hand, executive compensation is designed to align managerial incentives with the interests of shareholders who are uninformed about the level of effort exerted by their managers and who therefore link part of the remuneration to the firm's performance.¹ This is done to minimize the agency cost coming from the separation between ownership and control. Since the firm's debt is recognized to reduce shareholder–manager conflicts, several theoretical works predict a negative association between pay-for-performance sensitivity and financial leverage. There are different reasons that explain this negative relationship. First, debt could decrease the firm's free-cash flow, which should reduce the manager's ability to use corporate resources for empire-building purposes (Jensen, 1986). Second, higher debt could increase the threat of bankruptcy (Grossman and Hart, 1982), which could imply that managers act in the interest of shareholders even in the presence of low-powered explicit incentive schemes. Third, an increase in the firm's debt could increase monitoring by lenders, which could substitute for the provision of monetary incentives by shareholders.

On the other hand, higher financial leverage could increase the stockholder–bondholder conflicts. Indeed, a compensation that is designed to align managerial incentives with shareholder interests could induce risk-shifting incentives for managers.

[☆] We are indebted to Bruno M. Parigi and two anonymous referees for helpful comments and suggestions that significantly improved the paper. We would also like to thank Marco Becht, Michele Cincera, Mathias Dewatripont, Abdul Noury, seminar participants at ECARES (Université Libre de Bruxelles), the University of Catania, the Vrije Universiteit Amsterdam, the JEI 2005 (Bilbao) and the 2006 SOLE meetings (Cambridge, MA), in particular Roberto Cellini, Vicente Cuñat, Maria Guadalupe, Kevin Hallock, Patrick Legros and Joseph Tribo, for useful discussions. We have also received valuable suggestions from Marco Gulisano, Heiko Karle, Alexander Sebal, Saverio Simonelli and Sergey Stepanov. Biagio Speciale is a postdoctoral researcher at the F.R.S-FNRS and gratefully acknowledges their financial support. The usual disclaimer applies.

* Corresponding address: ECARES, Université Libre de Bruxelles, 50 Avenue F.D. Roosevelt, 1050 Brussels, Belgium.

E-mail address: biagio.speciale@ulb.ac.be (B. Speciale).

¹ Incentive compensation may also induce correlation between the portfolio of managers and the cash flow of the firms they manage. Bisin et al. (2008) studied the agency problem between a manager and shareholders when the former can hedge her compensation against the poor performance of her firm using financial markets and shareholders can monitor the manager's portfolio in order to keep her from hedging, but monitoring is costly.

In a context of asymmetric information concerning risk choices taken by managers in their investment decisions, bondholders would anticipate that managers have risk shifting incentives by simply observing the management compensation structure. This would affect their decision about the price of the bond. Low pay-for-performance sensitivity can thus be seen as a precommitment device to minimize the agency costs of debt related to the risk-shifting problem (John and John, 1993).

Either by reducing shareholder–manager conflicts or by nourishing stockholder–bondholder ones, the mentioned theoretical works predict that an increase in financial leverage lowers pay-for-performance sensitivity. There has been little empirical work to test these theoretical predictions. Studying management compensation policies in 77 publicly traded firms that filed for bankruptcy or privately restructured their debt from 1981 to 1987, Gilson and Vetsuypens (1993) find that during periods of financial distress pay-for-performance sensitivity is extremely low (even insignificantly different from zero), while it increases after firms restructure their debt. Using a sample of 1652 CEOs in the largest publicly traded US companies for the period 1993–1999, Ortiz-Molina (2007) find that the elasticity of managerial remuneration to total shareholder returns is decreasing in total financial leverage, except for firms with convertible debt (the latter finding is in line with John and John, 1993 and with Green, 1984).

In contrast to the findings of the mentioned theoretical and empirical literature, in our paper we show how pay-for-performance sensitivity may be increasing in financial leverage, with the exception of the most levered firms. We estimate a panel of quoted firms from the UK, ranging from 1995 to 2002. In the United Kingdom, remuneration is set by an independent committee. There is also nearly full disclosure and intense scrutiny of remuneration practices by institutional investors. It is probably fair to say that it is unlikely that managers set their own pay. We employ robust regression techniques to deal with the presence of outliers and firm dummy variables to take account of unobserved heterogeneity.

A methodological contribution of this paper is that we exploit the tech bubble burst as a source of variation in firm's debt. The collapse of the tech bubble after the year 2000 implied different changes in financial leverage for sectors with different technological levels. The sharp change in investor's expectations was very likely to be exogenous to the incentive schemes of the firms. In contrast to results in previous empirical works, we find evidence of an increasing relationship between financial leverage and pay-for-performance sensitivity for almost all the firms in our sample. This relationship turns into negative for the 10% most levered firms. Our estimates indicate that, on average, the negative effect of financial leverage concerned UK companies with long term debt larger than 34% of total assets. Moreover, our estimates show an increasing relationship between financial leverage and total short-term compensation (basic salary plus bonus) as well, with the exception of firms with a level of financial leverage that is larger than the 99th percentile of the financial leverage distribution.

In auxiliary regressions, we also show that for our sample both total shareholder returns and their variance are positively associated with financial leverage. These additional findings are helpful to shed some light on possible mechanisms driving the relationship of interest. We discuss these potential channels in the context of the standard agency theory with moral hazard. For firms with high levels of financial leverage, it was less easy to align managerial and shareholder interests through an incentive scheme because total shareholder returns may have become a noisier signal for managerial effort. For all other firms, the estimates show a positive effect of financial leverage on incentives. In this case, financial leverage may have raised the marginal value of the agent's effort for the principal. Additionally, it may have implied a positive effect on pay-for-performance sensitivity through its effect on risk. This mechanism may be along the lines of a recent literature showing a positive relationship between risk and incentives through effects on delegation of responsibilities, endogenous market structure and/or endogenous matching between managers and firms (see Prendergast, 2002; Raith, 2003; Wright, 2004; Serfes, 2005).

The rest of the paper proceeds as follows. In Section 2, we present an empirical analysis of the relationship between financial leverage and pay-for-performance sensitivity. Section 3 proposes some possible explanations for our estimation results. We conclude in Section 4.

2. Empirical analysis of the effects of financial leverage on pay-for-performance sensitivity

2.1. Data description

We have observations on an unbalanced panel of UK quoted firms belonging to the FTSE350™ and FTSE Small Cap™ indices. Data come from two sources: companies accounting data are taken from the Amadeus database, while data on manager compensation and firm stock returns come from the Datastream database.

Our initial dataset is made up of 10 yearly observations (ranging from 1993 to 2002) for a sample of 754 quoted companies for which we have availability of data on financials and manager compensation from the 1135 ones that make up the FTSE350™ and FTSE Small Cap™ indices.

The dependent variable (*ManComp*) is the compensation of the firm's highest paid director (usually the CEO), taken by the Datastream "Equities" dataset. It is in constant '97 £. Following Jensen and Murphy (1990), Core et al. (1999) and Cuñat and Guadalupe (2005) – among others – the dependent variable is in levels. This allows to estimate the pound change in managerial compensation associated with an increase in the measure of firm's performance. *ManComp* includes the basic salary plus a bonus usually linked to short term performance. It does not include long term elements of compensation, such as stock options, which are not readily available for UK firms. This study thus follows the definition of remuneration variable that has been used in most empirical studies on managerial compensation in the UK (among others, see Conyon, 1997; Girma et al., 2006). We therefore focus on the effects of firm's debt on short term compensation. A remark is worth mentioning. We rely on the work of Conyon and Murphy (2000), who collect UK stock option data for a cross section of firms, for the

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات