Journal of Banking & Finance 40 (2014) 330–345

Contents lists available at ScienceDirect

Journal of Banking & Finance

journal homepage: www.elsevier.com/locate/jbf

Executive compensation structure and the motivations for seasoned equity offerings

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ARTICLE INFO

Article history:
Received 17 May 2013
Accepted 2 December 2013
Available online 14 December 2013

JEL classification:
G32
G34

Keywords:
Seasoned equity offerings
Executive compensation
Equity-based compensation

ABSTRACT

We hypothesize that managers who receive high equity-based compensation have greater incentive to avoid ownership dilution by timing their seasoned equity offers to periods when investors temporarily overvalue their stock. We provide empirical support for this hypothesis using a measure of equity-based compensation that reflects the sensitivity of the top five executives' wealth (based on ownership of stock, options, and restricted shares) to a 1% change in stock price. We find that firms associated with high equity-based compensation for top executives experience abnormally low stock returns and relatively unfavorable changes in operating performance in the three-year period following the issue. Overall, the findings support the premise that managers whose wealth is most sensitive to stock price changes are more likely to act in the interest of current shareholders by issuing equity when they believe their stock is overvalued.

1. Introduction

Firms that pay higher equity-based compensation to executives should have a lower incidence of managerial decisions that are non-value maximizing because such actions would reduce the manager's own personal wealth (Shleifer and Vishny, 1988). Indeed, firms paying higher equity-based compensation experience more favorable market reactions to divestitures (Tehranian et al., 1987) and are more likely to make better acquisitions and not overpay for the target (Datta et al., 2001). Further, these firms have an increased likelihood of voluntary liquidation with a resulting enhancement in shareholder value (Mehran et al., 1998), and are more likely to invest in risky projects that increase firm value (Guay, 1999).

Datta et al. (2005) show that managers with high equity-based compensation have incentive to issue equity when investors overvalue the firm's shares, benefiting themselves and existing shareholders. The model of Datta et al. (2005) is an extension of Myers and Majluf (1984), who show that firms avoid issuing external equity unless the stock is overvalued to minimize the dilution of existing owners' claim. Investors, aware of this incentive, react more negatively to seasoned equity offer (SEO) announcements when top executives receive higher equity-based compensation. Datta et al. (2005) provide empirical support for their model, and conclude that the degree of overvaluation in equity offerings is associated with the incentive structure for executives at the issuing firm. We motivate our study using similar logic, although we focus on post-issue long-run performance rather than the short-term market reaction to the issue announcement.

More specifically, this paper investigates whether the extent of equity-based compensation for top executives is associated with post-SEO long-run stock and operating performance. We construct a measure of equity-based compensation, *TPD5*, which reflects the sensitivity of the top five executives' wealth (based on ownership of stock, options, and restricted shares) to a 1% change in stock price. Higher values of *TPD5* are associated with greater equity-based compensation. We hypothesize that managers of high *TPD5* firms have greater incentive to avoid ownership dilution by timing their SEOs to periods when investors temporarily overvalue their stock.[4] Such managers are less likely to issue SEOs when they believe their shares are accurately valued, preferring instead to use

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[4] The idea that managers actively time SEOs to coincide with share overvaluation is consistent with Baker and Wurgler (2002), and survey evidence presented by Graham and Harvey (2001) that find over two-thirds of CFOs surveyed claim that the most important consideration in making an equity issuance decision is related to the extent that managers view the share price of their firm to be overvalued or undervalued.

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http://dx.doi.org/10.1016/j.jbankfin.2013.12.003

less ownership-dilutive sources of capital, such as internal funds or debt, to finance future investments.

We focus on differences in post-SEO long-run stock and operating performance of high *TPD5* firms versus low *TPD5* firms. Our rationale is twofold. With respect to stock performance, if investors do not completely capitalize the information embedded in the level of equity-based compensation at the SEO announcement, then the post-SEO stock performance should be predictably lower for high *TPD5* issuers. With regard to operating performance, to the extent that high *TPD5* managers attempt to issue equity at temporary price peaks, they should conduct their SEOs at times when they do not expect operating performance to improve in the near future.

Studying a large sample of SEOs, we find that high *TPD5* issuers exhibit poor future performance while other issuers generally do not. For example, buy-and-hold abnormal stock returns in the three years after issuance average a significant −21% for high *TPD5* firms and an insignificant 7% for low *TPD5* firms. Calendar-time regressions using monthly portfolios indicate that SEO issuers within the past three years that are in the top quartile of *TPD5* yield a significant monthly three-factor alpha of −0.54%. After controlling for the Carhart (1997) momentum factor and an investment factor following Lyandres et al. (2008),[5] we find a significant five-factor alpha of −0.47%. Firms with lower values of *TPD5* do not exhibit significant post-SEO stock underperformance. These results support our hypothesis of a timing-related motive for issuers with managers receiving high equity-based compensation.

Furthermore, we report that high *TPD5* issuers exhibit less favorable post-SEO changes in operating performance than low *TPD5* issuers. In particular, our analysis of five measures of operating performance (operating income scaled by sales, operating income scaled by assets, cash flows scaled by assets, cash flows scaled by sales, and return on equity) indicates that high *TPD5* issuers usually experience either no change or a decline in operating performance during the two to three years following the issue, whereas low *TPD5* issuers often are associated with either no change or an increase in operating performance during this period. Regression estimates indicate that high *TPD5* issuers experience significantly less favorable changes in operating performance than low *TPD5* issuers.

These results are consistent with our underlying hypothesis that equity-based compensation aligns managers with current shareholders, and makes it more likely that they issue shares when the stock is overvalued. An alternative, and more nefarious, explanation of the findings relates to the idea that SEO underperformance is linked to earnings management (Teoh et al., 1998; Rangan, 1998), whereby firms use accruals to artificially inflate earnings prior to issuing equity. According to this explanation, the decline in future operating performance is not because managers foresee poor future performance, and therefore issue stock to capture the premium from overvalued equity, but rather they create stock overvaluation by inflating earnings. We test this alternative hypothesis and reasonably rule it out. In particular, we construct measures of discretionary accruals following Kothari et al. (2005) by using the modified-Jones model and performance-matched modified-Jones model. In our estimations of operating performance, greater discretionary accruals are associated with less favorable changes in operating performance around SEOs, consistent with prior literature on earnings management around SEOs. After controlling for this effect, however, we continue to find that high *TPD5* issuers experience significantly less favorable changes in operating performance than low *TPD5* issuers. Further, there is little statistical evidence that the degree of discretionary accruals differs between high *TPD5* and low *TPD5* groups, or that the change in accruals from pre- to post-issue differs between high *TPD5* and low *TPD5* groups. In short, our findings suggest that firms in which top executives receive a relatively large fraction of total compensation as equity-based compensation are more likely to issue seasoned equity when investors temporarily overvalue the firm's shares. This is consistent with the managerial goal of maximizing the wealth of existing shareholders.

We contribute to a growing number of studies that partition SEO issuers by the managerial incentive to issue overvalued equity and provide evidence of poor long-run stock performance when the incentive is greatest.[6] For example, Kahle (2000) finds that SEOs following abnormal insider selling underperform in the long run, while those after abnormal insider buying do not. Clarke et al. (2001) find that greater insider trading prior to SEOs announcements is associated with poorer long-run stock performance. Clarke et al. (2004) report that secondary SEOs in which the selling shareholder is a firm insider exhibit abnormally poor long-run stock returns.

The remainder of this paper is organized as follows. Section 2 describes the sample and provides summary statistics. Section 3 explains our methodology. Section 4 provides the empirical results. Finally, Section 5 concludes.

2. Sample and descriptive statistics

2.1. Sample

The sample of SEOs is collected from Securities Data Company's (SDC) Global New Issues Database and consists of SEOs during 1993–2006. We gather CRSP monthly stock returns from 1993–2009 to examine three-year stock performance following issuance. Excluded are rights offers, unit offers, offers by financials (SIC code 6000-6999) and utilities (SIC code 4900-4999), and offers by non-US firms. To be included in the sample, firms must have ordinary common shares (share code of 10 or 11) listed on the NYSE, AMEX, or Nasdaq, and stock return data available from the Center for Research in Securities Prices (CRSP). The firm must also have financial data available from COMPUSTAT and executive compensation data available from ExecuComp (which includes firms in the S&P 1500 index) for the fiscal year prior to the SEO issue date.[7]

In Table 1, Panel A provides the annual frequency and average issue proceeds for sample offers. The first two columns present statistics for all SEOs (not restricted by executive compensation data). The latter two columns report statistics on the sample of SEOs for which executive compensation data is available from ExecuComp in the prior year. This sample includes 1287 offers.

2.2. Statistics on executive compensation

Panel B of Table 1 provides descriptive statistics during 1993–2006 for the *Salary* & *Bonus* and *Total Compensation* paid to the top five executives, and the total *Option Portfolio Value, Stock Portfolio Value, Restricted Shares Value*, and *Total Portfolio Value* reported by ExecuComp during the fiscal year prior to SEO announcement dates. *Salary* & *Bonus* is reported directly from ExecuComp (data item TOTAL_CURR) and summed across the top five executives. *Total Compensation* for the top five executives is defined as the

[5] The investment factor is motivated by the idea that SEO-related investment leads to the conversion of risky growth options into less risky assets in place. Thus, SEO-related investment should lead to a reduction in risk and expected return, which is captured by a negative loading on this factor.

[6] Early studies that report post-SEO stock underperformance include Loughran and Ritter (1995), Spiess and Affleck-Graves (1995), and Loughran and Ritter (1997).

[7] In unreported robustness tests, we exclude SEOs that are followed in the next 36 months by another SEO conducted by the same firm due to the potential contamination in the long-run return analysis. The results using this approach are unchanged from those reported.