

元 智 大 學

管理學院商學博士班

(財務金融學程)

博 士 論 文

銀行經理人風險承擔動機的黑暗面：從銀行放款決策分析之

**The Dark Side of Bank CEO Risk-taking Incentives:
Evidence from Bank Lending Decisions**



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摘要

本研究探討銀行首席執行官的冒險動機 (vega) 如何影響銀行貸款決策。該研究的實證結果表明 vega 與貸款公告周圍的累積異常收益 (CARs) 顯著負相關，這證明了 vega 對銀行貸款市場具有真正的影響。另外，根據現有的 CEO 激勵文獻，我們發現具有較高冒險精神的 CEO 傾向於放寬銀行貸款合約中的貸款標準，以尋求更高的報酬。有證據表明，維加係數較高的銀行傾向於收取較低的貸款利差，要求較少的貸款契約，並且尋求抵押品的可能性較低。結果將會變弱，這可支持以下觀點：高 CEO 冒險行為可能會在銀行經理和股東之間造成代理問題。

經濟文學雜誌: G21, G32, G34

關鍵字：CEO激勵, 銀行貸款合約, 累積超額收益, 公司治理, 代理問題。

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Abstract

This paper investigates how bank CEO risk-taking incentives (vega) influence bank lending decisions. Empirical finding of the study reveals that vega is significantly negatively related to cumulative abnormal returns (CAR) around loan announcements, confirming that vega has a real effect on the bank loan market. In addition, consistent with the existing CEO incentive literature, we find that CEOs with higher risk-taking incentives tend to relax their lending standards in bank loan contracts to pursue higher compensation. Evidence shows that banks with high vega tend to charge a significantly lower loan spread, demand fewer loan covenants, and have lower probability to seek collateral. Results become weaker when banks have strong corporate governance mechanisms, supporting the proposition that high CEO risk-taking incentives may create an agency problem between a bank manager and shareholders.

JEL: G21, G32, G34

Keywords: CEO incentives, bank loan contracts, cumulative abnormal returns, corporate governance, agency problem.

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Chapter 1. Introduction

Managerial risk-taking behavior in both financial and non-financial firms has been an attractive focus for the lens of many researchers (Hubbard and Palia, 1995; Houston and James, 1995; Knopf, Nam and Thornton, 2002; Coles, Daniel, and Naveen, 2006; Chen, Steiner and Whyte, 2006; Acharya and Naqvi, 2012). Excessive CEO risk-taking in the financial sector especially has been blamed for playing a crucial role in the build up to the 2008-2009 financial crisis. Acharya and Naqvi (2012) develop a theoretical model to show that bank over-lending may result from managers' desire to receive higher compensation in the presence of an agency problem between a bank manager and shareholders.¹

Other studies have revealed a positive correlation between option compensation and risk-taking incentives, thus increasing bank risk taking and bank-specific default risk (Jeitschko and Jeung, 2005; Mehran and Rosenberg, 2007; Balachandran, Kogut and Harnal, 2010; Bebchuk, Cohen and Spamann, 2010; Fahlenbrach and Stulz, 2011; Hagendorff and Vallascas, 2011). For example, Coles, Daniel and Naveen (2006) suggest that the higher *Vega* gives executives incentive to implement more aggressive debt policy and invest more in riskier assets (e.g. R&D). Similarly, DeYoung, Peng, and Yan (2013) show that banks in which CEOs have high risk-taking incentives (*high-Vega banks*) exhibit substantially larger amounts of both systematic and idiosyncratic risk.² To some extent, risk-taking is good and that is why CEOs are given ESOPs (employee stock ownership plans) and equity stake to converge their interest with those of the shareholders. The problem is when CEOs go overboard and take “excessive” risk which is higher than the optimal level. Although above studies have confirmed that CEO risk-taking

¹ Acharya and Naqvi (2016) show that, if a bank is awash with deposits from investors, its manager will be more likely to undertake high-risk projects to pursue his/her own self-interest and to sanction excessive loans by lowering lending rates and loosening lending standards (underprice the risk of projects), leading to asset-price bubbles and sowing seeds of future bank failure.

² Gande and Kalpathy (2017) indicate that equity incentives (*Vega*) embedded in CEO compensation contracts are positively associated with risk taking in financial firms and result in potential solvency problems.

incentives increase bank risk exposure, how such exposure affects bank lending decisions has not to date been examined. Specifically, in this paper we investigate the effects of bank's CEO risk-taking incentives (*Vega*) on bank loan contracting.

In lending relationships, cumulative abnormal returns (CARs) in bank loan announcement studies is helpful in order to evaluate the firm performance (James 1987; Lummer and McConnell 1989; Dahiya et al., 2003; Billett et al., 1995; Billeett et al., 2006; Kang and Liu 2008). Various authors in their research show that positive announcement returns are observed in firms having low information asymmetry (Mikkelsen and Partch 1986; James 1987; Lummer and McConnell 1989; Slovin et al., 1992; and Ross 2010). For example, Mikkelsen and Partch (1986) and James (1987) argue that information embedded in the bank loan decisions reflect the health of firm to capital market by examining the positive excess returns associated with bank loan announcements. Best et al., (1993) indicated that a positive CARs around the time of bank loan announcements can be considered as the signaling for banks' valuable monitoring function. Consistent with this idea, in this paper we evaluate the bank's over-lending effect caused by CEO risk-taking incentive (*Vega*) is a good or bad signal by paying attention to the market response to bank loan announcement.

We attempt to answer the following five questions regarding the *Vega* effects on bank loan contracts: (i) Do banks with higher *Vega* earn lower cumulative abnormal returns around bank loan announcement date?; (ii) Do banks with higher *Vega* charge lower interest rates on loans?; (iii) Do *Vega* effects on bank loan contracts also exist in non-price terms (general covenants, financial covenants, collateral)?; (iv) Are *Vega* effects weaker by strong corporate governance mechanisms?; and (v) Do *Vega* effects still hold after adjusting for other CEO compensation schemes and CEO characteristics?

We evaluate these questions by using a sample of 20,502 loans to 5,102 U.S. firms between 1992 and 2014. We obtain all accounting variables and stock prices from the Compustat database