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Financial crisis and bank executive incentive compensation☆

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ABSTRACT

We study the executive compensation structure in 14 of the largest U.S. financial institutions during 2000–2008. We focus on the CEO's purchases and sales of their bank's stock, their salary and bonus, and the capital losses these CEOs incur due to the dramatic share price declines in 2008. We consider three measures of risk-taking by these banks. Our results are mostly consistent with and supportive of the findings of Bebchuk, Cohen and Spamann (2010), that is, managerial incentives matter — incentives generated by executive compensation programs are correlated with excessive risk-taking by banks. Also, our results are generally not supportive of the conclusions of Fahlenbrach and Stulz (2011) that the poor performance of banks during the crisis was the result of unforeseen risk. We recommend that bank executive incentive compensation should only consist of restricted stock and restricted stock options — restricted in the sense that the executive cannot sell the shares or exercise the options for two to four years after their last day in office. The above incentive compensation proposal logically leads to a complementary proposal regarding a bank's capital structure, namely, banks should be financed with considerably more equity than they are being financed currently.

1. Introduction

Policymakers at the highest levels continue to be engaged with the ongoing global financial crisis. Factors that have been identified as contributing to this crisis include misguided government policies to an absence of market discipline of financial institutions that had inadequate or flawed risk-monitoring and incentive systems.[1] Such misguided government policies include low interest rates by the Federal Reserve and promotion of subprime risk-taking by government-sponsored entities dominating the residential mortgage market so as to increase home ownership by those who could not otherwise afford it. Sources of inadequate market discipline include ineffective prudential regulation including global capital requirements in the Basel Accords that favored securitized subprime loans over more conventional assets. Internal organizational factors contributing to the crisis include business strategies dependent on high leverage and short-term financing of long-term assets, reliance on risk and valuation models with grossly unrealistic assumptions, and poorly-designed incentive compensation. These factors, taken as a whole, encouraged what was, as can readily be observed with the benefit of hindsight, excessive risk-taking.

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[1] See, for example, French et al. (2010), Diamond and Rajan (2009) and Calomiris (2009).

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However, of the items on the extensive list of factors contributing to the crisis only one issue has consistently been a focal point of the reform agenda across nations: executive compensation. In the United States, for example, multiple legislative and regulatory initiatives have regulated the compensation of executives of financial institutions receiving government assistance.[2] The governments of many European nations have followed a similar regulatory strategy, while the European Union's Competition Commissioner has announced that it will be examining banks' compensation in light of government support received during the crisis.[3] An important assumption behind these regulatory reform efforts is the supposition that incentives generated by executive compensation programs led to excessive risk-taking. In an insightful recent paper, Bebchuk et al. (2010) study the compensation structure of the top executives in Bear Stearns and Lehman Brothers and conclude, "…given the structure of executives' payoffs, the possibility that risk-taking decisions were influenced by incentives should not be dismissed but rather taken seriously." We refer to this as the *Managerial Incentives Hypothesis*: *Incentives generated by executive compensation programs led to excessive risk-taking by banks contributing to the current financial crisis; the excessive risk-taking would benefit bank executives at the expense of the long-term shareholders.*

Fahlenbrach and Stulz (2011) focus on the large losses experienced by CEOs of financial institutions via the declines in the value of their ownership in their company's stock and stock option during the crisis and conclude, "Bank CEO incentives cannot be blamed for the credit crisis or for the performance of banks during that crisis." They argue that bank CEOs and senior executives could not nor did not foresee the extreme high risk nature of some of the bank's investment and trading strategies. The poor performance of these banks during the crisis is attributable to an extremely negative realization of the high risk nature of their investment and trading strategy. We refer to this as the *Unforeseen Risk Hypothesis*: *Bank executives were faithfully working in the interests of their long-term shareholders; the poor performance of their banks during the crisis was the result of unforeseen risk of the bank's investment and trading strategy.*

The *Unforeseen Risk Hypothesis* is supported by the Culture of Ownership that many banks publicly revere and espouse.[4] Per this Culture of Ownership, bank employees – especially senior executives – are supposed to have significant stock ownership in their bank such that their incentives are aligned with that of the long-term shareholders.

We study the executive compensation structure in the largest 14 U.S. financial institutions during 2000–2008, and compare it with that of CEOs of 37 U.S. banks that neither sought nor received Trouble Asset Relief Program (TARP) funds from the U.S. Treasury. We refer to the above 14 banks as the "Too-Big-To-Fail" TBTF banks, and the other 37 banks as No-TARP banks.[5] We focus on the CEO's purchases and sales of their bank's stock, purchase of stock via option exercise, and their salary and bonus during 2000–2008. We consider the capital losses these CEOs incur due to the dramatic share price declines in 2008. We compare the shareholder returns for these 14 TBTF banks and the 37 No-TARP banks. We consider three measures of risk-taking by these banks: (a) the bank's Z-score (number of standard deviations below the mean bank profit by which the profit would have to fall before the bank's equity loses all value), (b) the bank's asset write-downs, and (c) whether or not a bank borrows capital from various Fed bailout programs, and the amount of such capital. Finally, we implement a battery of robustness checks including construction of a Tobit model of expected CEO trading based on the extant literature on insider and CEO trading; we estimate abnormal CEO trading based on the above Tobit model. We find that, even after controlling for bank and CEO characteristics (including bank size), CEOs in the TBTF banks engaged in significantly more discretionary stock sales than CEOs in the No-TARP banks. Our results are mostly consistent with and supportive of the findings of Bebchuk et al. (2010), that is, managerial incentives matter: incentives generated by executive compensation programs are correlated with excessive risk-taking by banks. Also, our results are generally not supportive of the conclusions of Fahlenbrach and Stulz (2011) that the poor performance of banks during the crisis was the result of unforeseen risk.

On the basis of our analysis, we recommend the following compensation structure for senior bank executives: executive incentive compensation should only consist of restricted stock and restricted stock options — restricted in the sense that the executive cannot sell the shares or exercise the options for two to four years after their last day in office. This will more appropriately align the long-term incentives of the senior executives with the interests of the stockholders. The above incentive compensation proposal is detailed in Bhagat and Romano (2010) and Bhagat et al. (2014), and logically leads to a complementary proposal regarding a bank's capital structure, namely, banks should be financed with considerably more equity than they are being financed currently — in the order of 25% of total capital.

The remainder of the paper is organized as follows. The next section develops the *Managerial Incentives Hypothesis*, the *Unforeseen Risk Hypothesis*, and their testable implications. Section 3 details the sample selection and data sources. Section 4 highlights bank managers' payoffs during 2000–2008, and interprets this data in the context of the *Managerial Incentives Hypothesis* and the *Unforeseen Risk Hypothesis*. Also, this section details a battery of robustness checks to confirm whether or not

[2] Moreover, the Dodd–Frank Act of 2010 explicitly addressed the structure and responsibilities of compensation committees at firms in a similar way to how the Sarbanes–Oxley Act of 2002 addressed audit committees.

[3] Regulating bank executives' compensation took a prominent place on the agenda of the October 2009 G-20 summit, which produced a set of principles as a guideline for nations' regulation of financial executives' pay. Jonathan Weisman, *Obama Retakes Global Stage, but With Diminished Momentum*, Wall Street Journal, Sept. 19–20, 2009, (noting that French President Nicolas Sarkozy threatened to walk out of the G-20 summit if leaders did not adopt strict compensation limits for financial executives).

[4] See, for example, Goldman Sachs 2002 Annual Report: "Retaining the Strengths of an Owner Culture: The core of the Goldman Sachs partnership was shared long-term ownership." Lehman Brothers 2005 Annual Report states: "The Lehman Brothers Standard means…Fostering a culture of ownership, one full of opportunity, initiative and responsibility, where exceptional people want to build their careers…"

[5] We also include a sample of 49 other financial institutions that serves as an intermediate benchmark. These 49 firms did receive TARP assistance in 2008–2009, but are smaller and less systemically important than the 14 TBTF firms. We classify these 49 firms as the Later TARP, or L-TARP, sample.