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Contingent Capital in Executive Compensation

Wulf A. Kaal*

Abstract

Contingent capital has great potential to improve corporate governance in Systemically Important Financial Institutions (SIFIs). Early initiatives by European SIFIs to include contingent convertible bonds in executive compensation packages lack governance-improving designs. This Article suggests the use of contingent convertible bonds with an early conversion trigger in executive compensation. The proposal adds an important element to the literature on inside debt and the creditor-centered approach to executive compensation. Contingent convertible bonds with early triggers could be preferable to other debt instruments because, in addition to lowering income inequality and increasing sustainability, the early trigger design can improve incentives for executives to lower risk-taking, improve signaling of default risk, and increase incentives for monitoring by creditors and shareholders. The recognition of ownership characteristics in design features adds an important element to the literature on contingent capital trigger designs. The methodological assumptions of incomplete contract theory can improve the analysis of executive compensation arrangements.

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I. Introduction

Since the financial crisis of 2008–2009 (Financial Crisis), existing executive compensation policies and the level of executive compensation have been increasingly scrutinized.¹

1. See FIN. CRISIS INQUIRY COMM’N, FINAL REPORT OF THE NATIONAL COMMISSION ON THE CAUSES OF THE FINANCIAL AND ECONOMIC CRISIS IN THE UNITED STATES 61–66 (2011) [hereinafter FINAL REPORT], http://fcic-static.law.stanford.edu/cdn_media/fcic-reports/fcic_final_report_full.pdf (investigating the causes of the financial and economic crisis of 2007–2010); Lucian A. Bebchuk & Holger Spamann, *Regulating Bankers’ Pay*, 98 GEO. L.J. 247, 249 (2010) (explaining how banks’ executive pay has produced incentives for excessive risk-taking and how such pay should be reformed); Lucian A. Bebchuk & Jesse M. Fried, *Pay Without Performance: Overview of the Issues*, 30 J. CORP. L. 647, 649 (2005) (critiquing pay arrangements and corporate governance processes producing them); Sanjai Bhagat & Roberta Romano, *Reforming Executive Compensation: Focusing and Committing to the Long-Term*, 26 YALE J. ON REG. 359, 363 (2009) (suggesting that executive incentive compensation

Lucian Bebchuk and his coauthors show in several pieces that existing executive compensation practices have resulted in suboptimal incentives for executives.² The level of executive compensation in the United States³ and the focus on equity-based

plans should consist only of restricted stock and restricted stock options); Claire Hill & Brett McDonnell, *Executive Compensation and the Optimal Penumbra of Delaware Corporation Law*, 4 VA. L. & BUS. REV. 333, 369 (2009) (arguing that courts are not well equipped to deal with structural bias); Richard A. Posner, *Are American CEOs Overpaid, and, if So, What if Anything Should Be Done About It?*, 58 DUKE L.J. 1013, 1026 (2009) (discussing the compensation of publicly owned U.S. company executives); Simone M. Sepe, *Making Sense of Executive Compensation*, 36 DEL. J. CORP. L. 189, 196–97 (2011) (arguing that the Dodd–Frank Act did not adequately reform executive compensation schemes); Judith F. Samuelson & Lynn A. Stout, *Are Executives Paid Too Much?*, WALL ST. J., Feb. 26, 2009, at A13 (analyzing how executives and managers should be paid to benefit companies' long term health); Carola Frydman & Dirk Jenter, *CEO Compensation 9* (Nat'l Bureau of Econ. Research, Working Paper No. 16585, 2010), available at <http://www.nber.org/papers/w16585> (surveying recent literature on CEO compensation).

2. See generally Lucian A. Bebchuk, Alma Cohen & Holger Spamann, *The Wages of Failure: Executive Compensation at Bear Stearns and Lehman 2000–2008*, 27 YALE J. ON REG. 257 (2010); see also Bebchuk & Spamann, *supra* note 1, at 274–75 (arguing that because shareholders are incentivized to encourage management to take risks beyond the socially optimal level, corporate governance reforms should include reforms of executive compensation policies). Because of implicit government guarantees for bank debt, existing executive compensation policies do not incentivize bondholders and other creditors to monitor risk-taking by executives. *Id.*

3. According to a 2012 report by the Economic Policy Institute, CEO compensation grew more than 725% from 1978 to 2011, compared to 5.7% for worker compensation. LAWRENCE MISHEL & NATALIE SABADISH, ECON. POLICY INST. ISSUE BRIEF NO. 331, CEO PAY AND THE TOP 1%: HOW EXECUTIVE COMPENSATION AND FINANCIAL-SECTOR PAY HAVE FUELED INCOME INEQUALITY 4 (2012), <http://www.epi.org/files/2012/ib331-ceo-pay-top-1-per-cent.pdf>. The CEO–worker compensation ratio in 2011 was 231.0-to-1 if stock options realized were counted, 209.4-to-1 if stock options granted were counted. *Id.* at 6. The Wall Street Journal/Hay Group CEO Compensation 2011 Study reveals that although pay levels flattened due to “say-on-pay” provisions, long-term equity grants were up 34% from 2010 levels. WALL ST. J. & HAY GROUP, 2011 CEO COMPENSATION STUDY SUMMARY 2 (2012), http://www.haygroup.com/downloads/ww/WSJ_Hay_Group_2011_Study_Summary_Results_FINAL_5.20.12.pdf. According to Bebchuk and Grinstein, between 1993 and 2003 the aggregate compensation of the top five executives in the United States amounted to over \$351 billion. Lucian Bebchuk & Yaniv Grinstein, *The Growth of Executive Pay*, 21 OXFORD REV. OF ECON. POL'Y 283, 297 (2005), <http://oxrep.oxfordjournals.org/content/21/2/283.full.pdf+html>. Over the same time period (1993–2003), executive compensation at S&P 500 firms rose on average from \$3.7 million to \$9.1 million. *Id.* at 285.

compensation in executive pay packages may have resulted in inappropriate executive risk-taking,⁴ short-termism,⁵ a lack of sustainability, income inequality, and a classic moral hazard problem.⁶

For more than three decades, theoretical research on executive compensation has focused almost exclusively on adjusting executive compensation with equity-based products alone, such as stocks and stock options.⁷ While equity-based compensation policies may increase risk-taking, some empirical studies have shown that risk-taking can decline if executives hold more debt relative to their equity holdings.⁸ An increasing part of

4. See FINAL REPORT, *supra* note 1, at 61–66 (discussing executive compensation as a cause of the Financial Crisis).

5. *Id.*

6. Executive remuneration via stock options resulted in executives sharing in shareholders' gain but insulated them from shareholders' losses. This may have led executives to use excessively risky strategies because there was no penalty for management. See Bebchuk & Spamann, *supra* note 1, at 249–50 (discussing the role of excessive risk-taking in the financial sector and its impact on the Financial Crisis); see also Bebchuk, Cohen & Spamann, *supra* note 2, at 259 (analyzing executive compensation at Bear Stearns and Lehman from 2000–2008); Rüdiger Fahlenbrach & Rene M. Stulz, *Bank CEO Incentives and the Credit Crisis*, 99 J. FIN. ECON. 11, 12 (2011) (arguing that the most plausible explanation for these findings is that CEOs “took actions that they believed the market would welcome,” but “[e]x post, these actions were costly to their banks”); Andrea Beltratti & Rene M. Stulz, *Why Did Some Banks Perform Better During the Credit Crisis? A Cross-Country Study of the Impact of Governance and Regulation* (Nat'l Bureau of Econ. Research, Working Paper No. 15180, 2009), <http://www.nber.org/papers/w15180.pdf>.

7. Michael C. Jensen & Kevin J. Murphy, *CEO Incentives—It's Not How Much You Pay, But How*, HARV. BUS. REV., May–Jun. 1990, at 138 (showing that it is more important to focus on the form of executive compensation than the amount of compensation).

8. See Cory A. Cassell, Shawn X. Huang, Juan Manuel Sanchez & Michael D. Stuart, *Seeking Safety: The Relation Between CEO Inside Debt Holdings and the Riskiness of Firm Investment and Financial Policies*, 103 J. FIN. ECON. 588, 599 (2012) (studying the relation between CEO inside debt holdings and the riskiness of firm investment and financial policies); Rangarajan K. Sundaram & David L. Yermack, *Pay Me Later: Inside Debt and Its Role in Managerial Compensation*, 62 J. FIN. 1551, 1553 (2007) (discussing the shift away from equity incentives and toward debt incentives as CEOs get older); Joseph Gerakos, *CEO Pensions: Disclosure, Managerial Power, and Optimal Contracting* 23 (Pension Research Council, Working Paper No. 2007-5, 2007), available at <http://ssrn.com/abstract=982180> (finding that pension benefits may reduce risk-taking); Frederick Tung & Xue Wang, *Bank CEOs, Inside Debt Compensation, and the Global Financial Crisis* 18–19 (Bos. Univ. Sch. of Law,

the literature is now considering the role of debt for manager incentives (the creditor-centered approach).⁹ Debt in executive compensation packages can help lower risk incentives, lower income inequality, address short-termism, and create sustainability.¹⁰

The benefits of debt in executive compensation packages can be enhanced by using contingent convertible bonds (CCBs),¹¹ which can either be written down or converted into equity upon a triggering event.¹² Unlike traditional contingent convertible

Working Paper No. 11-49, 2011) [hereinafter Tung & Wang], *available at* <http://ssrn.com/abstract=1570161> (finding that banks with higher CEO debt–equity ratios are likely to take less risk and perform better during a financial crisis than those with lower CEO debt–equity ratios); Chenyang Wei & David Yermack, *Investor Reactions to CEOs' Inside Debt Incentives* (Fed. Reserve Bank of N.Y., Staff Report No. 445, 2011), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1604046 (noting that many studies have found that firms face a lower cost of debt when the CEO has a high ratio of inside-debt-to-inside-equity compensation). Other studies reject the idea that executive compensation and risk-taking are correlated. *See* Fahlenbach & Stulz, *supra* note 6, at 12 (arguing that the link between incentive and risk-taking is not proven); Andrew C. W. Lund, *Compensation as Signaling*, 64 FLA. L. REV. 591, 593 (2012) (stating that the interest in executives' pay structure as related to concerns about risk-taking is misplaced); Karl S. Okamoto & Douglas O. Edwards, *Risk Taking*, 32 CARDOZO L. REV. 159, 183 (2010) (arguing that the prevailing view, which suggests altering executives' compensation packages, may not be the solution to excessive risk-taking).

9. Bebchuk and Spamann propose tying executive pay to a specified percentage of the aggregate value of the common shares, the preferred shares, and the bonds issued by a bank or its holding company. Bebchuk & Spamann, *supra* note 1, at 253. John Coffee recommends using “contingent capital,” a debt security that converts to a fixed return preferred stock with cumulative arrearages and significant voting rights. John C. Coffee, Jr., *Systemic Risk After Dodd–Frank : Contingent Capital and the Need for Regulatory Strategies Beyond Oversight*, 111 COLUM. L. REV. 795, 806 (2011). Hill and Painter argue that bankers should have some personal liability and suggest two approaches: mandatory partnership/joint venture agreements and assessable stock. Claire Hill & Richard Painter, *Berle's Vision Beyond Shareholder Interests: Why Investment Bankers Should Have (Some) Personal Liability*, 33 SEATTLE U. L. REV. 1173, 1175 (2010). Fred Tung suggests paying bankers partly with their banks' public subordinated debt securities. Frederick Tung, *Pay for Banker Performance: Structuring Executive Compensation for Risk Regulation*, 15 NW. U. L. REV. 1205, 1207 (2011).

10. *See generally* Bebchuk & Spamann, *supra* note 1.

11. Other terms for contingent capital securities (CCSs) include contingent convertible bonds (CCBs), or CoCos. This Article will predominantly refer to these hybrid instruments as contingent convertible bonds or CCBs.

12. *See* CHARLES HIMMELBERG, AMANDA HINDLION, SANDRA LAWSON &

bonds issued to investors, the emphasis for contingent convertible bonds in executive compensation is not on a capital infusion when the Systematically Important Financial Institution (SIFI) is in a crisis,¹³ but rather on governance-improving designs to help optimize management's incentives.¹⁴ Adding contingent convertible bonds with an early trigger to the calibration of executive compensation packages could improve the corporate governance of SIFIs.¹⁵ More specifically, contingent convertible bonds with early triggers in executive compensation packages can help to improve incentives for risk-taking by executives, facilitate monitoring by creditors and shareholders, align executives' interests with those of different constituents, promote sustainability, and reduce income inequality.¹⁶

Using contingent convertible bonds with early triggers in executive compensation is not a mere theoretical proposal.

LOUISE PITT, GOLDMAN SACHS GLOBAL MKTS. INST., CONTINGENT CAPITAL: POSSIBILITIES, PROBLEMS, AND OPPORTUNITIES 4 (2011) [hereinafter GOLDMAN SACHS], <http://www.goldmansachs.com/our-thinking/public-policy/regulatory-reform/contingent-capital.pdf>; STEVE STRONGIN, AMANDA HINDLION & SANDRA LAWSON, GOLDMAN SACHS GLOBAL MKTS. INST., EFFECTIVE REGULATION: PART 5: ENDING "TOO BIG TO FAIL" 5–6 (2009) [hereinafter GOLDMAN SACHS TBTF], <http://www2.goldmansachs.com/our-thinking/public-policy/regulatory-reform/efficient-reform-part-5.pdf> (explaining the triggering process for contingent capital).

13. See George Pennacchi, Theo Vermaelen & Christian C.P. Wolff, *Contingent Capital: The Case for COERCs* 9 (INSEAD, Working Paper No. 2010/89/FIN, 2010), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1656994 (explaining how COERC bonds work).

14. See generally Wulf A. Kaal, *Initial Reflections on the Possible Application of Contingent Capital in Corporate Governance*, 26 NOTRE DAME J.L. ETHICS & PUB. POL'Y 101 (2012) (summarizing the possible applications of contingent convertible bonds in corporate governance); see also Wulf A. Kaal & Christoph K. Henkel, *Contingent Capital with Sequential Triggers*, 49 SAN DIEGO L. REV. 221 (2012). The conversion feature of CCBs and the threat of dilution for equity holders could change the power structure, control dynamic, and dependencies within SIFIs. The market in contingent convertible bonds is slowly evolving. See *infra* Part VI.B. With increasing issuances, contingent capital design features will continue to develop. The efficient functioning of contingent capital designs could benefit from experimentation and a learning experience that takes into account corporate governance considerations. Combined with other corporate governance mechanisms, CCBs, as an internal institution-specific mechanism, could help fill the void left by regulators' seeming inability to supervise financial institutions effectively.

15. See Coffee, *supra* note 9, at 807 (discussing how implementing an early trigger for conversion may deter excessive risk-taking).

16. See *infra* Part V.B.2.

Barclays, Inc. (Barclays) has already issued contingent capital securities to its executives under its Contingent Capital Plan (CCP).¹⁷ Barclays's CCP, however, does not allow for conversion from debt into equity, much less with an early trigger before any other contingent convertible bonds can be triggered. Barclays's issuance seems to serve a mere signaling function, only marginally improves corporate governance, and leaves the incentives for executives untouched. The design adjustment proposed in this Article helps optimize the effectiveness and corporate governance improvements of contingent convertible bonds in executive compensation.

This Article includes five Parts. Part II evaluates reform proposals for executive compensation policies before and after the enactment of the Dodd–Frank Act and demonstrates that the creditor-centered approach to executive compensation adds important elements to the debate on reform proposals. Part III introduces the concept of contingent capital securities, contingent capital's quasi-public-good characteristics, and the possible application of contingent capital bonds for corporate governance improvements in SIFIs. Part IV shows that the relational elements in executive compensation contracts are inadequately acknowledged by classical contract theory and spot contract theory. The shortcomings in the analysis of executive compensation contracts under the classical contract model and spot contract model can be overcome with the methodological assumptions of the relational or incomplete contract model in New Institutional Economics. Part V introduces the idea of contingent capital bonds in executive compensation and highlights the design and governance shortcomings in Barclays's Contingent Capital Plan. Part V shows that contingent convertible bonds with early triggers can add important elements to the literature on inside debt and the creditor-centered approach to executive compensation. The recognition of

17. See BARCLAYS, BARCLAYS PLC ANNUAL REPORT 2010 172 (2010) [hereinafter BARCLAYS ANNUAL REPORT], http://reports.barclays.com/ar10/files/Annual_Report_2010.pdf (stating that 50% of the deferred incentive rewards will be contingent capital awards under the CCP); Megan Murphy & Jennifer Hughes, *Barclays Causes a Stir with Cocos Plan*, FIN. TIMES, Jan. 25, 2011, at 22 (discussing the issuance of contingent convertible bonds as part of employees' bonuses) (on file with the Washington and Lee Law Review).

ownership characteristics in design features also adds an important element to the literature on contingent capital trigger designs.

II. Reform Proposals for Executive Compensation

Corporate governance reform proposals after the Financial Crisis have recognized the importance of executive compensation.¹⁸ Although the effects of equity-based compensation are unclear and are the subject of a long academic debate,¹⁹ equity-based compensation predominates

18. The Financial Crisis Inquiry Commission lists executive compensation as one of the primary factors contributing to the crisis (among other factors such as lack of transparency, excessive borrowing, and high risk investments). FINAL REPORT, *supra* note 1, at xix, xxvi. Executive compensation takes a prominent role among other important factors (such as accounting, liquidity, and capital regulation) in the Financial Services Authority's Turner Review in the United Kingdom. FIN. SERVS. AUTH., THE TURNER REVIEW: A REGULATORY RESPONSE TO THE GLOBAL BANKING CRISIS 80 (2009), http://www.fsa.gov.uk/pubs/other/turner_review.pdf (highlighting contributing factors and international approaches to banking reform).

19. See generally Christopher S. Armstrong & Rahul Vashishtha, *Executive Stock Options, Differential Risk-Taking Incentives, and Firm Value*, 104 J. FIN. ECON. 70 (2012); John M. Barron & Glen R. Waddell, *Work Hard, Not Smart: Stock Options in Executive Compensation*, 6 J. ECON. BEHAV. & ORG. 767 (2008); John E. Core, Wayne R. Guay & David F. Larcker, *Executive Equity Compensation and Incentives: A Survey*, 9 ECON. POL'Y REV. 27 (2003); John E. Core, Wayne R. Guay & Randall S. Thomas, *Is U.S. CEO Compensation Broken?*, 17 J. APPLIED CORP. FIN. 97 (2005); Bhagat & Romano, *supra* note 1; Stephen Bryan, Robert Nash & Ajay Patel, *Can the Agency Costs of Debt and Equity Explain the Changes in Executive Compensation During the 1990s?*, 12 J. CORP. FIN. 516 (2006); James Cash Acree, William R. McCumber & Thu Hien T. Nguyen, *CEO Incentives and Bank Risk*, 63 J. ECON. & BUS. 456 (2011); Ingolf Dittman, Ernst Maug & Dan Zhang, *Restricting CEO Pay*, 17 J. CORP. FIN. 1200 (2011); Frydman & Jenter, *supra* note 1; Brian J. Hall & Kevin J. Murphy, *Stock Options for Undiversified Executives*, 33 J. ACCT. & ECON. 3 (2002); Huasheng Gao, *Optimal Compensation Contracts When Managers Can Hedge*, 97 J. FIN. ECON. 218 (2010); Mao-Wei Hung, Yu-Jane Lio & Chia-Fen Tsai, *Managerial Personal Diversification and Portfolio Equity Incentives*, 18 J. CORP. FIN. 38 (2012); Christine Hurt, *Regulating Compensation*, 6 ENTREPRENEURIAL BUS. L.J. 21 (2011); Li Jin, *CEO Compensation, Diversification, and Incentives*, 66 J. FIN. ECON. 29 (2002); Lisa K. Meulbroek, *The Efficiency of Equity-Linked Compensation: Understanding the Full Cost of Awarding Executive Stock Options*, 30 FIN. MGMT. 5 (2001); Eli Ofek & David Yermack, *Taking Stock: Equity-Based Compensation and the Evolution of Managerial Ownership*, 55 J. FIN. 1367 (2000); Sepe, *supra* note 1; Wei & Yermack, *supra* note 8; Sudhakar

executive compensation in the United States.²⁰ The focus on equity-based compensation in executive compensation packages may have resulted in short-termism, suboptimal incentives for managers, a lack of sustainability, income inequality, and a classic moral hazard problem.²¹ The appropriate response to the shortcomings in equity-based executive compensation is debated among academics²² and

Balachandran, Bruce Kogut & Hitesh Harnal, *The Probability of Default, Excessive Risk, and Executive Compensation: A Study of Financial Service Firms from 1995–2008* (Columbia Bus. Sch. Research Paper, Working Paper, 2010), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1914542; Patrick Bolton, Hamid Mehran & Joel Shapiro, *Executive Compensation and Risk Taking* (Fed. Reserve Bank of N.Y., Staff Report No. 456, 2011), http://www.ny.frb.org/research/staff_reports/sr456.pdf; Jeffrey N. Gordon, *Executive Compensation and Corporate Governance in Financial Firms: The Case for Convertible Equity-Based Pay* (Columbia Law Sch. & Eur. Governance Inst., Working Paper No. 373, 2010) [hereinafter *Executive Compensation*], available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1633906.

20. See DANIEL A. COHEN, AIYESHA DEY & THOMAS Z. LYS, THE SARBANES–OXLEY ACT OF 2002: IMPLICATIONS FOR COMPENSATION STRUCTURE AND RISK-TAKING INCENTIVES OF CEOs 29 (2004), <http://leeds-faculty.colorado.edu/Bhagat/SOX-CEO-Compensation-Investment.pdf> (covering the period from 1992 to 2003 and dividing compensation into fixed salary, bonuses, and options); Cassell et. al., *supra* note 8, at 597 (depicting CEO-to-firm debt–equity ratio); Sundaram & Yermack, *supra* note 8, at 1553 (defining the ratio of equity-to-inside-debt as benefit pensions and deferred compensation); Tung & Wang, *supra* note 8, at 13 (measuring debt as defined benefit pension and deferred compensation).

21. See Bebchuk & Spamann, *supra* note 1, at 249–50 (discussing problems in bank executives’ pay, possible remedies, and government intervention); Bebchuk, Cohen & Spamann, *supra* note 2, at 259 (analyzing executive compensation at Bear Stearns and Lehman from 2000–2008); Fahlenbrach & Stulz, *supra* note 6, at 12 (arguing that the most plausible explanation for these findings is that CEOs “took actions that they believed the market would welcome,” but “[e]x post, these actions were costly to their banks”); Beltratti & Stulz, *supra* note 6, at 1–2 (investigating limitations for bank performance during the Financial Crisis).

22. See, e.g., Jennifer G. Hill, *Regulating Executive Remuneration after the Global Financial Crisis: Common Law Perspectives*, in RESEARCH HANDBOOK ON EXECUTIVE PAY (Jennifer G. Hill & Randall S. Thomas eds., 2012) (discussing the nexus between executive compensation and the Financial Crisis); Bebchuk & Spamann, *supra* note 1 (analyzing how banks’ compensation structures produced incentives for excessive risk-taking); see also Posner, *supra* note 1, at 1040–41 (arguing that, while the Financial Crisis cannot be attributed directly to executive overcompensation, CEOs have an incentive to increase leverage because of compensation tied by stock options to share value, generous severance packages, etc.); FINAL REPORT, *supra* note 1, at xix (stating that “compensation systems—designed in an environment of cheap money, intense

policy makers.²³ The debate pre- and post- Dodd–Frank Act has been shaped by the apparent shortcomings in equity-based

competition, and light regulation—too often rewarded the quick deal, the short-term gain—without proper consideration of long-term consequences”). “Often, those systems encouraged the big bet—where the payoff on the upside could be huge and the downside limited. This was the case up and down the line—from the corporate boardroom to the mortgage broker on the street.” *Id.* *But see* Fahlenbrach & Stulz, *supra* note 6, at 11–12 (investigating whether bank performance during the recent credit crisis is related to CEO incentives before the crisis and finding some evidence that banks with CEOs whose incentives were better aligned with the interests of shareholders performed worse and no evidence that they performed better); Beltratti & Stulz, *supra* note 6, at 2–5 (examining whether bank performance is related to bank-level governance, country-level governance, country-level regulation, and bank balance sheet and profitability characteristics before the crisis).

23. *See generally* FIN. STABILITY BD., FSB PRINCIPLES FOR SOUND COMPENSATION PRACTICES: IMPLEMENTATION STANDARDS (2009), http://www.financialstabilityboard.org/publications/r_090925c.pdf (providing specific recommendations regarding world-wide standards for corporate pay structure, disclosure, and transparency); ORG. FOR ECON. CO-OPERATION & DEV., CORPORATE GOVERNANCE AND THE FINANCIAL CRISIS: KEY FINDINGS AND MAIN MESSAGES 14–31 (2009), <http://www.oecd.org/dataoecd/3/10/43056196.pdf> (analyzing “major corporate governance weaknesses” and outlining “a set of key findings and main messages”); DAVID WALKER, A REVIEW OF CORPORATE GOVERNANCE IN UK BANKS AND OTHER FINANCIAL INDUSTRY ENTITIES: FINAL RECOMMENDATIONS 106–27 (2009), http://webarchive.nationalarchives.gov.uk/+http://www.hm-treasury.gov.uk/d/walker_review_261109.pdf (examining corporate governance practices and the appropriate balance between restraints on financial institution boards and flexibility for those boards to make effective strategic business decisions); *see also* *Remuneration Code*, FIN. SERVS. AUTH., <http://www.fsa.gov.uk/Pages/About/What/International/remuneration/index.shtml> (last visited Nov. 14, 2012) (providing a listing of FSA materials on remuneration) (on file with the Washington and Lee Law Review); *Remuneration Policies*, EUROPEAN COMM’N, http://ec.europa.eu/internal_market/company/directors-remun/index_en.htm (last visited Nov. 14, 2012) (listing European Union materials on directors’ remuneration) (on file with the Washington and Lee Law Review); Paul Davies et al., *European Company Law Experts’ Response to the European Commission’s Green Paper ‘The EU Corporate Governance Framework’* 9–12 (Working Paper, 2011), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1912548 (suggesting that corporate governance should address three agency problems: (1) “those between the management . . . and the shareholders” where shareholdings are dispersed; (2) “those between controlling and non-controlling shareholders” where shareholdings are concentrated; and (3) those between controllers and non-shareholder stakeholders); Dodd–Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, 124 Stat. 1376, §§ 951 (codified at 15 U.S.C. § 78n-1), 952 (codified at 15 U.S.C. § 78j-3), 954 (codified at 15 U.S.C. § 78j-4), 956 (codified at 12 U.S.C. § 5641); COMM. OF EUROPEAN BANKING SUPERVISORS (CEBS), GUIDELINES ON REMUNERATION, POLICIES AND PRACTICES (2010), <http://www.eba.europa.eu/cebs/media/Publications/Standards%20and%20Guidelines/2010/Remuneration/Guidelines.pdf> (exploring the effect of

executive compensation, by experiences with Enron and other financial scandals, and by the Sarbanes–Oxley Act, as well as by the Financial Crisis. Recent efforts to include debt-based instruments in executive compensation could help address many of the shortcomings in equity-based compensation.

A. Pre Dodd–Frank Act

There is some evidence that executive compensation played a role in governance shortcomings before the Enron scandal.²⁴ Despite this evidence, the regulatory response after the collapse of Enron focused predominantly on audit failure.²⁵ Executive compensation was only marginally addressed in the Sarbanes–Oxley Act (SOX).²⁶ Increased shareholder involvement in

remuneration, requirements on risk alignment and disclosure in the context of remuneration policies and practices); FIN. STABILITY FORUM, FSF PRINCIPLES FOR SOUND COMPENSATION PRACTICES (2009), http://www.financialstabilityboard.org/publications/r_0904b.pdf (describing the FSF Principles for Sound Compensation Practices and how they apply to major financial institutions).

24. See John C. Coffee Jr., *What Caused Enron? A Capsule Social and Economic History of the 1990s*, 89 CORNELL L. REV. 269, 273, 297–98 (2004) (discussing the Enron collapse and the economic incentives in the broader context of the society and culture of the 1990s).

25. See John C. Coffee Jr., *Gatekeeper Failure and Reform: The Challenge of Fashioning Relevant Reforms*, 84 B.U. L. REV. 301, 302–62 (2004) (exploring the role of “gatekeepers,” or independent professionals who spend great effort to protect disparate investors who are unable to protect themselves from corporate or institutional abuse); Jeffrey N. Gordon, *What Enron Means for the Management and Control of the Modern Business Corporation: Some Initial Reflections*, 69 U. CHI. L. REV. 1233, 1233 (2002) (discussing Enron’s collapse and ramifications for the greater business world).

26. Sarbanes–Oxley Act of 2002 (SOX), Pub. L. No. 107-204, 116 Stat. 745 (codified in scattered sections of 15 U.S.C.). See Sec. & Exch. Comm’n v. Jenkins, 718 F. Supp. 2d 1070, 1079 (D. Ariz. 2010) (providing some clarification by requiring personal misconduct by the issuer, not the executive, to grant recovery under SOX § 304); Coffee, *supra* note 24, at 269–71 (considering executive compensation as a possible cause for the Enron scandal and the eventual collapse of Enron); Jeffrey N. Gordon, “Say on Pay:” *Cautionary Notes on the U.K. Experience and the Case for Shareholder Opt-In*, 46 HARV. J. ON LEGIS. 323, 333–34 (2009) (discussing the lacking effectiveness of SOX § 304); Lyman P.Q. Johnson & Mark A. Sides, *The Sarbanes-Oxley Act and Fiduciary Duties*, 30 WM. MITCHELL L. REV. 1149, 1162–63, 1190–92 (2004) (describing shareholder approval of equity compensation plans under SOX and various NYSE and NASDAQ responses to SOX); Nathan Knutt, *Executive Compensation Regulation: Corporate America, Heal Thyself*, 47 ARIZ. L. REV. 493, 509 (2005)

executive compensation, director elections, and other corporate governance matters were notably absent from the Sarbanes–Oxley Act. Reform proposals after the Enron scandal but before the Financial Crisis and the eventual enactment of the Dodd–Frank Act focused in part on increasing shareholder involvement, linking compensation to executive performance, and optimizing transparency.

Before the Financial Crisis and the enactment of the Dodd–Frank Act that would eventually include provisions to enhance shareholder involvement, proposals for reform included attempts to establish say-on-pay plans requiring a stockholder vote on manager compensation.²⁷ The United Kingdom implemented a say-on-pay scheme in 2002²⁸ and Germany began allowing

(“The majority of Sarbanes-Oxley is not dedicated to executive compensation issues. . . .”); Roberta Romano, *The Sarbanes-Oxley Act and the Making of Quack Corporate Governance*, 114 YALE L.J. 1521, 1529, 1538 (2005) (criticizing SOX § 402, which prohibits personal loans to directors and officers).

27. Hill & McDonnell, *supra* note 1, at 369; *see also* Randall S. Thomas, Alan R. Palmiter & James F. Cotter, *Dodd–Frank’s Say on Pay: Will it Lead to a Greater Role for Shareholders in Corporate Governance?*, 97 CORNELL L. REV. (forthcoming 2012), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1975866 (last visited Nov. 14, 2012) (on file with the Washington and Lee Law Review).

28. *See* Gordon, *supra* note 26 (assessing hypothetical mandatory federal rule in the U.S. in light of the U.K. experience with a similar regulation adopted in 2002 and arguing for a federally mandated shareholder opt-in right to a “say on pay” regime, which would change the current reliance on “precatory proposals”); *see generally* Walid Alissa, *Boards’ Response to Shareholders’ Dissatisfaction: The Case of Shareholders’ Say on Pay in the UK* (Working Paper, 2009), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1412880 (examining how the U.K. regulation affected the actions of shareholders and boards and finding evidence that shareholders sometimes used their vote to convey dissatisfaction with excessive compensation); Martin J. Conyon & Graham V. Sadler, *Shareholder Voting and Directors’ Remuneration Report Legislation: Say on Pay in the UK* (AAA 2010 Mgmt. Acct. Sec. (MAS) Meeting Paper, Working Paper, 2009), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1457921 (investigating U.K. shareholder voting and finding that less than 10% of shareholders abstain or vote against the “mandated Directors’ Remuneration Report”); Fabrizio Ferri & David A. Maber, *Say on Pay Votes and CEO Compensation: Evidence from the UK*, REV. FIN. (forthcoming), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1420394 (last visited Nov. 14, 2012) (examining “say on pay” regulation in the U.K. and finding that the regulation’s announcement led to a positive stock price reaction at firms with weak penalties for undesirable performance) (on file with the Washington and Lee Law Review).

nonbinding votes on management compensation by shareholders during the annual meeting in 2010.²⁹

Other reform proposals before the enactment of the Dodd–Frank Act focused on linking pay with executive performance. Proposals in this context included tying executive compensation to the entity’s performance by granting stock options,³⁰ back loading executive compensation and tying it to the future performance of the company,³¹ prohibiting severance pay,³² and granting restricted stock with a mandatory holding period.³³ Other proposals to increase executive performance suggest a reduction in equity compensation and bonuses caused by industry-based movements and changes in the economy,³⁴ awarding bonuses only for accounting improvements that are sustained over time,³⁵ and curtailing “soft-landing” arrangements.³⁶

Another major focus of reform proposals before the enactment of the Dodd–Frank Act had been transparency in the disclosure of executives’ compensation packages. Proposals to improve transparency included placing a dollar value on all

29. See Marc Steffen Rapp, Marco O. Sperlring & Michael Wolff, *Wer Fragt die Aktionäre?—Abstimmung über das Vorstandsvergütungssystem: Erfahrungen aus der HV-Saison 2010* [Who is Asking the Shareholders? Voting on Management Compensation in German Listed Firms—Evidence from the Annual Meeting Season 2010] (HHL Research Paper Series in Corp. Governance No. 2, Working Paper, 2010), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1723155 (examining the determinants affecting the likelihood of voting and the result of the vote, and finding that the likelihood of voting increases with a higher free float and large media exposure and the introduction of a new remuneration system leads to a higher approval rate).

30. Michael C. Jensen & William H. Meckling, *Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure*, 3 J. FIN. ECON. 305, 355–57 (1976); see also Frydman, *supra* note 1, at 5 (surveying recent literature on CEO compensation).

31. Posner, *supra* note 1, at 1045.

32. *Id.*

33. Bhagat & Romano, *supra* note 1, at 363; Samuelson & Stout, *supra* note 1, at A13.

34. Bebchuk & Fried, *supra* note 1, at 669.

35. *Id.* at 670.

36. See *id.* at 671–72 (stating that these arrangements “provide generous compensation for executives being pushed out due to failure” and narrow “the payoff gap between good and poor performance”).

elements of executive compensation³⁷ and disclosing the value in SEC filings,³⁸ disclosing sales of equity instruments,³⁹ disclosing nondeductible compensation,⁴⁰ appointing a compensation representative to represent shareholder interests in setting executive pay,⁴¹ and appointing a “high-quality” compensation committee consisting of experienced, independent members.⁴²

B. Post Dodd–Frank Act

Congress passed the Dodd–Frank Act⁴³ as a response to the Financial Crisis. The Act adopted many of the suggestions from the precrisis literature on executive compensation and added other safeguards. The Dodd–Frank Act’s provisions pertaining to executive compensation provide for a nonbinding shareholder vote to approve executive compensation,⁴⁴ disclosure of relationship between executive compensation and the financial

37. Posner, *supra* note 1, at 1045.

38. Bebchuk & Fried, *supra* note 1, at 668.

39. *Id.* at 668–69.

40. *Id.* at 668.

41. Lawton W. Hawkins, *Compensation Representatives: A Prudent Solution to Excessive CEO Pay*, 72 BROOK. L. REV. 449, 473–74 (2007).

42. Jerry Sun & Steven Cahan, *The Effect of Compensation Committee Quality on the Association Between CEO Cash Compensation and Accounting Performance*, 17 CORP. GOVERNANCE: AN INT’L REV. 193, 194 (2009) (stating that empirical evidence has shown that compensation committees can prevent executives from behaving opportunistically); *see also* Patricia M. Dechow, Mark R. Huson & Richard G. Sloan, *The Effect of Restructuring Charges on Executives’ Cash Compensation*, 69 ACCT. REV. 138, 139 (1994); Memorandum from Jeannemarie O’Brien, David E. Kahan & Samuel E. Eckman, SEC Issues Final Dodd–Frank Rules on Independence of Compensation Committee and Its Advisers (June 21, 2012) (discussing compensation committee independence, advisor independence, disclosure, and exemptions) (on file with the Washington and Lee Law Review); SEC Listing Standards For Compensation Committees, 17 C.F.R. §§ 229, 240 (2012) (directing the national securities exchanges to bar the listing of any equity securities of a company not in compliance with the compensation committee and compensation adviser requirements of Section 10C of the Exchange Act).

43. Dodd–Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, 124 Stat. 1376, 1899 (codified as amended in scattered sections of 7, 12, 15, 22, 31 & 42 U.S.C.).

44. *Id.* § 951.

performance of the entity,⁴⁵ disclosure of the annual total compensation of the CEO and the relationship to the median annual compensation of employees,⁴⁶ disclosure of hedging behavior,⁴⁷ claw-back provisions,⁴⁸ an independent compensation committee,⁴⁹ and prohibition of compensation arrangements that encourage inappropriate risks⁵⁰ or could lead to material financial loss to the financial institution.⁵¹

The post-Dodd–Frank Act-reform debate is predominated by dissension over say-on-pay provisions.⁵² Critics argue that shareholder voting on executive compensation could actually hurt shareholders because it diffuses responsibility regarding compensation and insulates directors' reputations.⁵³ With say-on-pay provisions in place, directors may be incentivized to authorize larger compensation packages that are less sensitive to performance.⁵⁴ Moreover, shareholders may lack the incentives and resources to evaluate the information and may not be able to determine whether executive pay is reasonable.⁵⁵ Say-on-pay provisions could give proxy advisory firms more power.⁵⁶

45. *Id.* § 953(a)(i).

46. *Id.* § 953(b).

47. *Id.* § 955.

48. *Id.* § 954(b).

49. *Id.* § 952.

50. *Id.*

51. *Id.* § 956(a)(1)(B).

52. See Marisa Anne Pagnattaro & Stephanie M. Greene, "Say on Pay:" *The Movement to Reform Executive Compensation in the United States and European Union*, 31 *Nw. J. INT'L L. & BUS.* 593, 593 (2011) (describing U.S. and European Union reform efforts in the context of executive compensation); Memorandum from Michael J. Segal, UK Government Announces Binding Vote on Executive Compensation (June 21, 2012) (discussing the differences in say-on-pay provisions in the U.K. and U.S.) (on file with author and with the Washington and Lee Law Review).

53. Minor Myers, *The Perils of Shareholder Voting on Executive Compensation*, 36 *DEL. J. CORP. L.* 417, 418 (2011).

54. See *id.* (proposing an opt-out of the say-on-pay regime by shareholder vote).

55. Tiffany Roddenberry, *Say-on-Pay: Cautionary Notes on the Use of Third Party Compensation Guidelines in the United States*, 38 *FLA. ST. U. L. REV.* 933, 933 (2011); see also Gordon, *supra* note 26, at 325.

56. Gordon, *supra* note 26, at 325.

To remedy the shortcomings, some suggest that Congress give shareholders a right to opt into a binding vote on the board's pay scheme,⁵⁷ while others suggest that shareholders should have a right to decide whether a public firm should schedule a vote on executive compensation,⁵⁸ information disclosed should include details on the pay of executives at competitor companies,⁵⁹ and shareholders should have a right to decide whether a public firm should schedule a vote on executive compensation.⁶⁰

Despite its many critics,⁶¹ say-on-pay may have led to improvements. As a result of say-on-pay requirements, some firms may have reduced compensation and increased performance measures for executive compensation.⁶² Because poorly performing companies with high pay levels can expect shareholder dissent, say-on-pay may attract strong shareholder support.⁶³ Shareholders may perceive compensation procedures as fairer under say-on-pay, which could increase shareholder confidence in an entity's board of directors and increased investor interest in the entity.⁶⁴

57. Andrew L. Bethune, *An Efficient "Say" on Executive Pay: Shareholder Opt-In as a Solution to the Managerial Power Problem*, 48 HOUS. L. REV. 585, 589, 610 (2011).

58. Gordon, *supra* note 26, at 326 (arguing that this regime would focus attention on firms with the most questionable practices).

59. Roddenberry, *supra* note 55, at 934, 952.

60. Gordon, *supra* note 26, at 326 (arguing that this regime would focus attention on firms with the most questionable practices, enabling successful implementation to be observed by similar firms and possibly causing them to change their behavior).

61. For a summary of criticism on say-on-pay provisions in the Dodd-Frank Act, see Roddenberry, *supra* note 55, at 940; Bethune, *supra* note 57, at 610-14.

62. Steven Balsam & Jennifer Yin, *The Impact of Say-on-Pay on Executive Compensation* 4 (Working Paper, 2012), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2026121.

63. *See id.* ("In this paper we find affected firms reduce their compensation, with that decrease being greater for firms that overpaid their CEOs in prior periods. We also find evidence that they increased their use of performance-based compensation.")

64. Kendall Bowlin, Margaret H. Christ & Jeremy B. Griffin, *Say-on-Pay and the Differential Effects of Voluntary Versus Mandatory Regimes on Investor Perceptions and Behavior* (AAA 2011 Mgmt. Acct. Sec. (MAS) Meeting Paper, Working Paper, 2012), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1659862.

C. The Creditor-Centered Approach

Executive compensation in the United States mostly takes the form of equity-based instruments. Changes to the tax code and other regulation encourage equity-based compensation for executives.⁶⁵ The justification of executive compensation with equity-based products has been a major focus of theoretical research on executive compensation in the past three decades.⁶⁶ However, an increasing part of the literature is now considering the role of debt for manager incentives,⁶⁷ and empirical studies show that risk-taking can decline if executives hold more debt relative to their equity holdings.⁶⁸

Bebchuk and Spamann show that a compensation package that includes a basket of securities representing a predefined percentage of the aggregate value of all outstanding bonds, preferred shares, and common shares could help address the shortcomings of existing executive compensation practices.⁶⁹ Tying executive compensation to this basket of securities issued by either the bank holding company or the bank⁷⁰ can improve incentives for executives to

65. See, e.g., 26 I.R.C. § 162(m) (2006); Lucian Bebchuk & Jesse Fried, *Paying for Long-Term Performance*, 158 U. PA. L. REV. 1915, 1921 (2010); COUNCIL OF INSTITUTIONAL INVESTORS, TOP 10 RED FLAGS TO WATCH FOR WHEN CASTING AN ADVISORY VOTE ON EXECUTIVE PAY 2–4 (2010), <http://www.cii.org/UserFiles/file/resource%20center/publications/March%202010%20-%20Say%20on%20Pay%20Checklist.pdf>.

66. See generally Jensen & Murphy, *supra* note 7 (showing that it is more important to focus on the form of executive compensation than the amount of compensation).

67. See generally Bebchuk & Spamann, *supra* note 1; Tung, *supra* note 9; Hill & Painter, *supra* note 9.

68. See generally Tung & Wang, *supra* note 8; Wei & Yermack, *supra* note 8; Sundaram & Yermack, *supra* note 8, at 1553; see also Gerakos, *supra* note 8, at 23 (finding that pension benefits may reduce risk-taking).

69. See Bebchuk & Spamann, *supra* note 1, at 253, 283–84. How the securities in the basket should be weighted is unclear. Weighting debt securities, including contingent convertible bonds, heavily in the calibration of executive compensation may increase the positive effects of debt in executive compensation packages. At the same time, debt may not be the preferred form of compensation for executives. Calibrating executive compensation packages to account for desired incentives and governance improvements while giving sufficient incentives for executives to perform within expected parameters could require an institution specific relational approach and a learning process for institutions. See discussion *supra* Part IV (reviewing the benefits of the incomplete contract theory of New Institutional Economics (NIE)).

70. *Id.*

consider the losses that risk-taking could impose on shareholders, bondholders, depositors, and taxpayers.⁷¹ Regulators could place constraints on the pay schemes to shape how executives choose the actions that are allowed by direct regulation.⁷² Moreover, bonuses could be based not only on earnings per share, but rather on broader metrics that also reflect the interests of preferred shareholders, bondholders, and the government as guarantor of deposits.⁷³ Hill and Painter suggest mandatory partnership or joint venture agreements and assessable stock to ensure that bankers have some personal liability.⁷⁴ This personal liability could improve creditor protection because executives would be exposed to some downside risk and would be disincentivized from taking excessive risks.⁷⁵

The literature on inside debt similarly emphasizes creditor protection. Inside debt in the form of deferred compensation and pension plans, among other instruments, can help optimize managers' incentives and serves an important function in the calibration of executive compensation packages.⁷⁶ Fred Tung suggests using public subordinated debt securities for part of the compensation of bank executives.⁷⁷ Debt and equity hold different risk preferences, and creditors' preferences for more conservative management strategies can help curb managers' risk-taking.⁷⁸

71. *Id.* at 247, 253, 283–84.

72. *Id.* at 253.

73. *Id.*

74. Hill & Painter, *supra* note 9, at 1174–75.

75. *Id.*

76. See Sundaram & Yermack, *supra* note 8, at 1552 (arguing that inside debt alters managerial incentives). This in turn alters the size of the firm's payouts, the composition of these payouts (dividends versus share repurchases), the firm's cost of debt and its capital structure, the choice of new securities to be issued (debt versus equity), project choice, capital expenditure choice, and the incentive to pursue diversifying mergers, among many other things; and discussing whether and under what conditions such debt holdings could be part of an optimal compensation package. *Id.*

77. Tung, *supra* note 9.

78. *Id.* at 1212–13; see also Rosalind L. Bennett, Levent Güntay & Haluk Unal, *Inside Debt, Bank Default Risk and Performance during the Crisis* 23–25 (FDIC Ctr. for Fin. Research, Working Paper No. 2012-3, 2012), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2122619 (stating that in bank holding companies, a CEO's lower holdings of inside debt relative to equity had an association with higher default risk and worse performance during the crisis period).

Inside debt in the form of defined benefit plans can make executives sensitive to firm value in bankruptcy, which is desired by creditors.⁷⁹ Measured by an entity's distance from default, aligning managers' interests with creditors' can reduce a firm's risk of defaulting⁸⁰ and improve its credit rating.⁸¹ Debt should be part of executive compensation because it is an efficient deterrent against risk-shifting.⁸²

79. Alex Edmans & Xavier Gabaix, *Is CEO Pay Really Inefficient? A Survey of New Optimal Contracting Theories*, 15 EUR. FIN. MGMT. 486, 493 (2009); see also Reilly S. White, *Inside Debt and Firm Dividend Policy* 1, 26 (Working Paper, 2012), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2054787 ("Managers with high pension holdings will be more reluctant to commit to high dividend policy that can risk their future pension payouts."). "These findings provide support to the manager-owner agency theory, where executive pensions can act as 'counter options', and therefore align executive interests away from shareholders towards bondholders." *Id.*

80. Sundaram & Yermack, *supra* note 8.

81. Gerakos, *supra* note 8, at 11–12.

82. Alex Edmans & Qi Liu, *Inside Debt*, 15 REV. FIN. 75, 77–78, 91 (2011) (justifying the use of debt as efficient compensation and arguing that a debt bias can improve effort as well as deter risk-shifting); see also Riccardo Calcagno & Luc Renneboog, *The Incentive to Give Incentives: On the Relative Seniority of Debt Claims and Managerial Compensation*, 31 J. BANKING & FIN. 1795, 1795, 1809 (2007) (arguing that the increase in the leverage of Anglo-American corporations has stimulated the interest in the role of debt as a direct incentive device for management to generate stronger corporate performance); Tung & Wang, *supra* note 8, at 5 ("Our empirical evidence provides a rationale for the use of inside debt compensation in structuring executive compensation in the banking context."); Cassell et al., *supra* note 8, at 588 (stating that "CEO inside debt holdings . . . are generally unsecured and unfunded liabilities of the firm," and therefore expose "the CEO to default risk similar to that faced by outside creditors," and arguing that CEOs with large inside debt holdings will display lower levels of risk-seeking behavior); Sallie Krawcheck, *Four Ways to Fix Banks*, 90 HARV. BUS. REV. 106, 109 (2012) (suggesting paying top executives with debt instead of equity-based compensation to give them more incentive to worry about risk); Hernan Ortiz-Molina, *Executive Compensation and Capital Structure: The Effects of Convertible Debt and Straight Debt on CEO Pay*, 43 J. ACCT. & ECON. 69, 71 (2007) (arguing that the hypothesis that debt reduces manager-shareholder conflicts can explain some but not all of the results); Alex Edmans, *How to Fix Executive Compensation: For Starters, Don't Link Pay Packages Just to Stock; Tie Them to Debt as Well*, WALL ST. J., Feb. 27, 2012, at R.1 (advocating for the inclusion of debt in executive compensation packages in order to reduce risk-taking); Bolton, Mehran & Shapiro, *supra* note 19, at 34 (presenting evidence that the market believes that "including debtlike instruments in CEO compensation packages will reduce risk" for financial institutions); see generally Yair Listokin, *Paying for Performance in Bankruptcy: Why CEOs Should Be Compensated with Debt*, 155 U. PA. L. REV. 777 (2007) (proposing a novel bankruptcy compensation plan, otherwise known as debt

The creditor-centered approach to executive compensation has encountered some critics who argue that inside debt can be inefficient and may not influence executives' conduct sufficiently while creating complicated incentive structures.⁸³ Other criticisms include allegations of too strong a focus on the banking sector and managers' ability to manipulate book value as the only available measure of asset value.⁸⁴ Critics have also attacked the creditor-centered approach on methodological grounds because they assume that the principal-agent relationship in that approach is a one-shot transaction rather than a relational contract.⁸⁵ Given the shortcomings pointed out by the debate, some call for a paradigm shift to overcome the unnecessary creation of new remuneration narratives.⁸⁶

III. Contingent Capital

Contingent convertible bonds (CCBs) are debt securities that can either be written down or converted into equity upon a triggering event.⁸⁷ The many applications and benefits of contingent convertible bonds⁸⁸ include their ability to stabilize and prepare

compensation, that is expected to provide better incentives for CEOs to perform efficiently).

83. Kelli A. Alces & Brian D. Galle, *Is Inside Debt Efficient? Theory and New Evidence from Executive Pensions and Deferred Compensation* 49–50 (Bos. Coll. Law Sch., Legal Studies Research Paper No. 266, 2012), J. CORP. L. (forthcoming), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2038528 (last visited Nov. 14, 2012) (on file with the Washington and Lee Law Review).

84. Sepe, *supra* note 1, at 210–11.

85. *Id.* at 193, 211–12.

86. Jaap W. Winter, *Corporate Governance Going Astray: Executive Remuneration Built to Fail*, in *FESTSCHRIFT FÜR KLAUS J. HOPT ZUM 70. GEBURTSTAG*, 1521–35 (Stefan Grundmann, Brigitte Haar & Hanno Merkt eds., 2010), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1792483 (arguing that regulation of performance-based executive compensation will fail to solve system-wide problems due to inherent flaws in human behavior, and proposing alternative compensation structures that decrease the significance of remuneration, focus compensation comparisons internally, and reduce variable pay while calling for greater shareholder involvement in company operations).

87. GOLDMAN SACHS, *supra* note 12, at 6.

88. See Kaal, *supra* note 14 (summarizing the benefits of contingent convertible bonds).

SIFIs for future financial crises,⁸⁹ signal default risk,⁹⁰ prevent bailouts,⁹¹ decrease risk-taking,⁹² minimize moral hazard,⁹³ incentivize the increase in capital,⁹⁴ internalize bank failure

89. See Mark J. Flannery, *Stabilizing Large Financial Institutions with Contingent Capital Certificates* 21–22 (Working Paper, 2009) [hereinafter Flannery, *Stabilizing*], available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1485689 (pointing out that automatic conversion of contingent capital debt diminishes probability of future financial loss); Mark J. Flannery, *No Pain, No Gain? Effecting Market Discipline via “Reverse Convertible Debentures”* 24–25 (Nov. 2002) (unpublished manuscript) [hereinafter Flannery, *No Pain*], <http://bear.warrington.ufl.edu/flannery/No%20Pain,%20No%20Gain.pdf> (last visited Nov. 14, 2012) (arguing that contingent capital will increase firms’ financial leverage through automatic loss absorption) (on file with the Washington and Lee Law Review).

90. See Raghuram Rajan, *More Capital Will Not Stop the Next Crisis*, *FIN. TIMES*, Oct. 2, 2009, at 9 (suggesting that contingent convertible bonds should be used to raise capital “when regulators see a crisis coming”); William C. Dudley, President & CEO, Fed. Res. Bank of N.Y., *Remarks at the Institute of International Bankers Membership Luncheon: Some Lessons from the Crisis* (Oct. 13, 2009), <http://www.newyorkfed.org/newsevents/speeches/2009/dud091013.html> (last visited Nov. 14, 2012) (proposing that contingent capital can be used to adequately capture risk) (on file with the Washington and Lee Law Review).

91. Coffee, *supra* note 9, at 803–06 (promoting contingent capital as an alternative to bailouts); Squam Lake Working Grp. on Fin. Regulation, *An Expedited Resolution Mechanism for Distressed Financial Firms: Regulatory Hybrid Securities* 2, 4 (Council on Foreign Relations: Ctr. for Geoeconomic Studies, Working Paper, 2009) [hereinafter Squam Lake Working Grp.], available at <http://www.cfr.org/economics/expedited-resolution-mechanism-distressed-financial-firms-regulatory-hybrid-securities/p19002> (suggesting that hybrid securities would help prevent bailouts); Charles W. Calomiris & Richard J. Herring, *Why and How to Design a Contingent Convertible Debt Requirement* 39 (Working Paper, 2011), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1815406 (averring that contingent capital could help prevent the “too big to fail” problem).

92. Pennacchi et al., *supra* note 13, at 36; Dudley, *supra* note 90 (asserting that because bank difficulties would trigger conversion, the dilution of shareholders creates an incentive for bank managers to “manage not only for good outcomes on the upside of the boom, but also against bad outcomes on the downside”).

93. See Flannery, *No Pain*, *supra* note 89, at 15 (“Frequent trigger evaluations eliminate moral hazard incentives and . . . [result in] surprisingly low default risk.”).

94. See Squam Lake Working Grp., *supra* note 91, at 3–4 (arguing that conversion of contingent capital bonds would quickly recapitalize banks); Calomiris & Herring *supra* note 91, at 39 (“A proper CoCos requirement can provide strong incentives for the prompt recapitalization of banks after significant losses of equity.”).

cost,⁹⁵ avoid financial contagion,⁹⁶ and “limit systemic risk.”⁹⁷ As a hybrid instrument, contingent convertible bonds combine the limited upside of debt in the form of the coupon rate with the unlimited downside risk of equity, i.e., the total loss of the investment. Several successful contingent convertible bond issuances in Europe with coupon rates between 7% and 9.5% show that these securities can display a combination of features that investors and issuers find attractive.⁹⁸ The market in contingent convertible bonds is slowly evolving.⁹⁹ Because contingent convertible debt has many applications and could help reform policy in many areas, the concept finds increasing support among academics¹⁰⁰ and policy

95. Flannery, *Stabilizing*, *supra* note 89, at 12 (calling contingent capital securities an “alternative to government absorption of private losses”); Robert L. McDonald, *Contingent Capital with a Dual Price Trigger 2* (Working Paper, 2010), available at <http://ssrn.com/abstract=1553430> (“[Contingent Capital] reduces the debt load for poorly-performing institutions . . . but permits individual banks to fail in good times.”).

96. See GOLDMAN SACHS TBTF, *supra* note 12, at 6 (noting that if the appropriate triggers are in place, it could prevent bank runs—though if the trigger is based on market prices, it could worsen bank runs); see also Darrell Duffie, *Contractual Methods for Out-Of-Court Restructuring of Systemically Important Financial Institutions* 5 (Hoover Inst., Working Papers on Econ. Pol’y, 2009), available at <http://media.hoover.org/sites/default/files/documents/06EndingGovernmentBailoutsAsWeKnowThemDuffie.pdf> (describing how conversion of contingent capital debt could “forestall . . . a liquidity crisis”).

97. Kaal, *supra* note 14, at 105; see also Coffee, *supra* note 9, at 806 (proposing use of contingent capital securities to reduce “pressure on corporate managers to accept greater risk and leverage”).

98. Kaal, *supra* note 14, at 134–36.

99. *Id.* at 136 (acknowledging a “lack of regulatory guidance”).

100. See *id.*; DAVID SKEEL, *THE NEW FINANCIAL DEAL: UNDERSTANDING THE DODD–FRANK ACT AND ITS (UNINTENDED) CONSEQUENCES* 84–85 (2011) (noting that the Dodd–Frank Act instructs the General Accountability Office to conduct a study on contingent capital and to begin using it when the study is completed); Coffee, *supra* note 9, at 839; Kaal & Henkel, *supra* note 14; Pennacchi et al., *supra* note 13, at 36; Douglas W. Diamond & Raghuram G. Rajan, *Fear of Fire Sales and the Credit Freeze* 28 (Bank for Int’l Settlements, Working Paper No. 305, 2010), <http://www.bis.org/publ/work305.pdf> (“[C]ontingent capital is like installing sprinklers . . . [W]hen the fire threatens, the sprinklers will turn on.”); Flannery, *No Pain*, *supra* note 89, at 15. But see Christian Koziol & Jochen Lawrenz, *Contingent Convertibles: Solving or Seeding the Next Banking Crisis?*, 36 J. BANKING & FIN. 90, 91 (2012) (explaining that in situations involving incomplete contracts, contingent convertible bonds may subject banks to greater financial distress); Duffie, *supra* note 96, at 5 (stating that contingent convertible bonds are “unlikely to stop a [bank’s] liquidity crisis once it begins”); McDonald, *supra* note 95, at 20–21 (describing situations where contingent

makers.¹⁰¹

Contingent convertible triggering events for conversion from debt into equity are typically intended to avert a financial weakening of the entity.¹⁰² The automatic conversion from debt into equity helps increase capital when needed and lowers the debt-to-equity ratio.¹⁰³ The automatic conversion of debt into equity may prove especially attractive to SIFIs who could otherwise be forced into restructuring.¹⁰⁴ Because of the importance of the conversion feature of contingent convertible bonds for purposes of corporate governance improvements, the analysis in this Article will focus on

capital fails to convert).

101. See COMM'N OF EXPERTS, FINAL REPORT OF THE COMMISSION OF EXPERTS FOR LIMITING THE ECONOMIC RISKS POSED BY LARGE COMPANIES 59–60 (2010), <http://www.sif.admin.ch/dokumentation/00514/00519/00592/index.html?lang=en> (last visited Nov. 14, 2012) (proposing the conversion of contingent capital upon certain triggering events) (on file with the Washington and Lee Law Review); Edmund L. Andrews, *Bernanke, in a Bow to Critics of Fed's Role, Supports Forming a Regulatory Group*, N.Y. TIMES, Oct. 2, 2009, at B3 (stating that Chairman of the Federal Reserve, Ben Bernanke, opined that giant financial players might be forced to adopt “contingent” capital, and noting that contingent capital is “gaining popularity within the Fed”); Daniel K. Tarullo, Fed. Res. Governor, Speech at the Exchequer Club in Washington, D.C. to the Federal Reserve: *Confronting Too Big to Fail* (Oct. 21, 2009), <http://www.federalreserve.gov/newsevents/speech/tarullo20091021a.htm> (last visited Nov. 14, 2012) (commenting that contingent capital offers “significant promise of injecting market discipline into the firm”) (on file with the Washington and Lee Law Review). For a description of the policy in the European Union, see Press Release, Eur. Comm'n, *Commission Wants Stronger and More Responsible Banks in Europe* (July 20, 2011), <http://europa.eu/rapid/pressReleasesAction.do?reference=IP/11/915&type=HTML> (last visited Nov. 14, 2012) (“The proposal will require banks to hold more and better capital to resist future shocks by themselves With its proposal, the Commission translates in Europe international standards on bank capital agreed at the G20 level (most commonly known as the Basel III agreement).”) (on file with the Washington and Lee Law Review).

102. Coffee, *supra* note 9, at 805; Duffie, *supra* note 96, at 4–5; Flannery, *Stabilizing*, *supra* note 89, at 3.

103. See AMAR BHIDÉ, A CALL FOR JUDGMENT: SENSIBLE FINANCE FOR A DYNAMIC ECONOMY 291 (2010) (offering a proposal aimed at reducing risk-taking by amending current financial regulations to allow unregulated financial institutions to raise debt or equity, “but not on a short-term basis from the public or regulated fiduciaries”); Coffee, *supra* note 9, at 805 (averring that contingent capital can counter-leverage debt).

104. See Kaal & Henkel, *supra* note 14, at 234 (stating that “conversion of debt into equity could be an attractive alternative” for struggling financial institutions); Coffee, *supra* note 9, at 805 (“By definition, such a conversion [of contingent capital debt] averts . . . bankruptcy . . .”).

contingent convertible bonds with a conversion feature rather than a write-down.

Contingent convertible bonds have quasi-public good characteristics¹⁰⁵ and are particularly suitable for purposes of corporate governance improvements in SIFIs.¹⁰⁶ The conversion feature of these securities may have the ability to influence corporate governance in SIFIs.¹⁰⁷ If sufficient volumes of contingent convertible bond issuances are combined with adequate design features, the conversion feature of contingent convertible bonds and the threat of dilution of equity positions in SIFIs could affect corporate governance in SIFIs.¹⁰⁸ Measures to increase the effectiveness of the conversion feature of contingent capital, such as increased voting rights or sequential triggers, could further increase the impact these securities may have on corporate governance.¹⁰⁹

In part because of mounting pressure from politicians, policy makers, and legislators who demanded remedies for corporate governance shortcomings, European SIFIs have issued contingent convertible bonds.¹¹⁰ Contingent convertible bonds' potential to address corporate governance shortcomings, albeit not fully utilized in the existing designs, may help with public relations because a contingent convertible bond issuance may signal to investors, politicians, and the general public that SIFI management is instituting safety-increasing measures that can help avoid future bailouts. Although the designs of recent contingent convertible bond issuances provide mostly for a write-down feature rather than a conversion to equity, the SIFIs who issued contingent convertible bonds seem to have recognized the market acceptance and investor demand for these hybrid securities. The market in

105. Kaal, *supra* note 14, at 140.

106. *Id.* at 140, 146.

107. *Id.* at 144.

108. *Id.* at 145.

109. *See id.* at 144–46 (outlining how contingent capital debt could be utilized to increase voting rights); Kaal & Henkel, *supra* note 14, at 255–56 (explaining how sequential triggers could “increase voting rights for holders of contingent capital”).

110. Kaal, *supra* note 14, at 125–26 (summarizing Swiss efforts to implement contingent capital rules and how these efforts precipitated Credit Suisse's voluntary issuances of contingent convertible bonds); *see also* GOLDMAN SACHS, *supra* note 12, at 18 (comparing the “few ‘loss absorbing’ securities . . . issued in the European market”).

contingent convertible bonds, however, is still in its infancy, and privately negotiated contingent convertible bond sales have so far not resulted in efficiently functioning contingent convertible bond designs that take corporate governance considerations into account. It is doubtful if market solutions and private ordering alone will produce contingent capital designs that help improve corporate governance in SIFIs.

IV. Incomplete Contract Theory

This Article expands the existing literature on the creditor-centered approach to executive compensation by recommending the inclusion of contingent convertible bonds in the calibration of executives' compensation packages. Scholarly contributions in the context of the creditor-centered approach to executive compensation are often (implicitly) based on the classical contract model or the spot contract model.¹¹¹ This can result in suboptimal and unrealistic outcomes. The classical contract model assumes a system of rules that deals with and legally guarantees all future eventualities. The parties to a contract negotiate and agree *ex ante* on all possible scenarios and eventually execute the contract as agreed. The contract in this model hopes to anticipate all eventualities and is not intended to be ambiguous.¹¹² The model assumes that the comprehensive nature of the regulation leaves no discretion to the agents, making opportunistic behavior impossible. Transaction costs in the form of initiating, concluding

111. Many scholars who endorse the creditor-centered approach to executive compensation may implicitly use the classical- or spot-contract model of executive compensation. *See, e.g.*, Bebchuk & Spamann, *supra* note 1, at 255–56 (examining banks' incentive for risk-taking using only two periods: "the present, when managers make decisions, and the future, when gains or losses are realized and the manager gets paid" because using multiple periods for the analysis unnecessarily complicates the analysis without changes in the conclusions or other substantial benefits); Gordon, *supra* note 26, at 332–39 (explaining that shareholders now have more corporate governance power to push for "pay for performance" executive compensation); Hill & Painter, *supra* note 9, at 1175, 1186–95; Sepe, *supra* note 1, at 211–12 (summarizing the issues).

112. Oliver D. Hart, *Incomplete Contracts*, in *THE NEW PALGRAVE: A DICTIONARY OF ECONOMICS 755* (John Eatwell, Murray Milgate & Peter Newman eds., 1989).

and enforcing the contract are not considered in the classical contract model.

Contrary to the assumptions of the classical contract model and the spot contract model, executive contracts have an informal relational dimension that goes beyond the written contract between the parties. The relationship between the executive as agent and the corporation and its shareholders as principal involves more than the contractual terms of the agreement. An executive compensation contract combines elements of a knowledge exchange and relational collaboration. Informal relational behavior between the principal and agent generates confidence in the relationship, creates institution-specific knowledge, and provides innovative capabilities. The informal relational elements of executive compensation contracts can often overshadow the legal terms of the agreement. Using a model for the analysis of executive contracts that is based on the single contract between the executive–agent and corporation–principal would ignore the informal relational element of this principal–agent relationship. Given the importance of the informal relational element of executive compensation contracts, the literature on the debt-centered approach to executive compensation should include informal relational-, behavioral-, and incomplete-contract theories.

These shortcomings in the analysis of executive compensation contracts under the classical contract model and spot contract model can be overcome with the relational or incomplete contract model in New Institutional Economics (NIE).¹¹³ NIE is a relatively young offspring of economic theory¹¹⁴ and shares core assumptions with the neoclassical model, such as

113. Rudolf Richter, *Banking Regulation as Seen by the New Institutional Economics*, in 2 THE ECONOMICS AND LAW OF BANKING REGULATION 136 (Eirik G. Furubotn & Rudolf Richter eds., 1989).

114. NIE's assumptions are increasingly used in modern economic analysis of financial markets and financial rules. See, e.g., HERSH SHEFRIN, BEYOND GREED AND FEAR: UNDERSTANDING BEHAVIORAL FINANCE AND THE PSYCHOLOGY OF INVESTING 9–10 (2002) (pointing out that studying “behavioral phenomena” is integral to understanding inefficient markets); ANDREI SHLEIFER, INEFFICIENT MARKETS: AN INTRODUCTION TO BEHAVIORAL FINANCE 10 (2000) (stressing that investors are often irrational, that they “deviate from the standard decision making model in a number of fundamental areas,” and that they do not behave as would be expected under traditional theories that rely on efficient markets).

methodological individualism, scarcity of resources, and self-interested rational behavior.¹¹⁵ NIE, however, substitutes the assumption of full rationality with bounded rationality¹¹⁶ and opportunistic behavior,¹¹⁷ and underscores that information is systematically incomplete.¹¹⁸ NIE emphasizes the functioning, development, and improvement of institutions.¹¹⁹ Institutions are defined as general rules or sets of general rules, together with their enforcement mechanisms.¹²⁰ NIE emphasizes the importance of informal institutions, such as social norms.¹²¹ Because corporate governance issues often involve formal and informal institutions, NIE is ideally suited to examine the efficiency of governance structures. Experimentation, observation, and rule revision in NIE's model are part of a

115. EIRIK G. FURUBOTN & RUDOLF RICHTER, *INSTITUTIONS AND ECONOMIC THEORY: THE CONTRIBUTION OF THE NEW INSTITUTIONAL ECONOMICS* 3–5, 7 (2d ed. 2005).

116. See STEFAN VOIGT, *INSTITUTIONENÖKONOMIK [INSTITUTIONAL ECONOMICS]* 22–23 (2d ed. 2009).

117. *Id.* at 88–89; FURUBOTN & RICHTER, *supra* note 115, at 5.

118. See VOIGT, *supra* note 116, at 237–38.

119. See FURUBOTN & RICHTER, *supra* note 115, at 35–37 (describing the subfields of modern NIE research); DOUGLASS C. NORTH, *INSTITUTIONS, INSTITUTIONAL CHANGE AND ECONOMIC PERFORMANCE* 3 (1990) (outlining the author's belief that studying institutional change is essential to understanding economic theory and “the way societies evolve through time”); RUDOLF RICHTER & EIRIK G. FURUBOTN, *NEUE INSTITUTIONENÖKONOMIK 1 [NEW INSTITUTIONAL ECONOMICS]* (3d ed. 2003); OLIVER E. WILLIAMSON, *THE ECONOMIC INSTITUTIONS OF CAPITALISM* 16 (1985) (“The changing character of economic organization over time . . . is of particular interest to [transaction cost economics and NIE].”); VOIGT, *supra* note 116; Christian Kirchner, *Public Choice and New Institutional Economics: A Comparative Analysis in Search of Co-operation Potentials*, in *PUBLIC ECONOMICS AND PUBLIC CHOICE* 19, 25–26, 32 (Pio Baake & Rainald Borck eds., 2007) (explaining that NIE examines how institutional changes and transaction costs affect behavior, and calling institutions the “core elements of the functions of markets”); Ronald Coase, *The New Institutional Economics*, 88 *AM. ECON. REV.* 72, 72–74 (1998) (describing how NIE examines transaction costs and their effect on institutional behavior and improvements); Oliver E. Williamson, *Transaction-Cost Economics: The Governance of Contractual Relations*, 22 *J.L. & ECON.* 233, 233 (1979) (“The new institutional economics is preoccupied with the origins, incidence, and ramifications of transaction costs.”).

120. See FURUBOTN & RICHTER, *supra* note 115, at 7 (“[A]n institution will be defined as a set of formal and informal rules, including their enforcement arrangements.”); VOIGT, *supra* note 116.

121. See VOIGT, *supra* note 116 (recognizing that limiting the analysis to a subset of formal institutions would ignore important problems).

continuous process that avoids “optimal” or “stable” rules.¹²² Experimentation can result in a learning process that can improve the quality of governance structures. Because it is likely that underlying economic conditions will change, contingent convertible bond offerings to the public and to executives may benefit from a process of experimentation and learning.

In contrast to classical contract analysis, NIE’s incomplete contract model recognizes that contracts are inevitably incomplete and rely on control rights to minimize opportunistic behavior.¹²³ This model takes opportunistic behavior and transaction costs into account.¹²⁴ The degree of contractual incompleteness is influenced by the cost of contracting and contracting parties’ ability to anticipate opportunistic behavior.¹²⁵ The theory of incomplete contracts under NIE can be considered part of the principal–agent approach because information before and after contracting is asymmetric and the agent has a certain amount of discretion making opportunistic behavior possible.¹²⁶

At the core of the principal–agent relationship in executive compensation is the short-term interest of the manager/agent to generate a high income that conflicts with the long-term ownership interest of the shareholders/principals. The relational elements in executive compensation contracts may further increase the principal–agent problem. The combination of knowledge exchange and relational collaboration in executive compensation contracts makes opportunistic behavior of executives likely.¹²⁷ Contracting parties are, however, limited in

122. See Kaal, *supra* note 14, at 137–39 (explaining the benefits of experimentation for the evolution of contingent capital rules).

123. WILLIAMSON, *supra* note 119, at 32; Charles R. T. O’Kelley, *Coase, Knight, and the Nexus-of-Contracts Theory of the Firm: A Reflection on Reification, Reality, and the Corporation as Entrepreneur Surrogate*, 35 SEATTLE U. L. REV. 1247, 1247 n.2 (2012); see also Oliver E. Williamson, *Comparative Economic Organization: The Analysis of Discrete Structural Alternatives*, 36 ADMIN. SCI. Q. 269, 269, 294 (1991) (expanding the analysis to governance mechanisms in relation to transaction costs).

124. See WILLIAMSON, *supra* note 119, at 30 (defining opportunism as “self-interest seeking with guile”); see also FURUBOTN & RICHTER, *supra* note 115.

125. OLIVER HART, FIRMS, CONTRACTS, AND FINANCIAL STRUCTURE 24–25 (1995).

126. See generally FURUBOTN & RICHTER, *supra* note 115.

127. Short-termism to maximize personal income through stock options, the Fuld Problem (see *infra* Part VI.B), and income inequality between senior

their ability to anticipate opportunistic behavior of agents. Therefore, control rights to limit opportunistic behavior become increasingly important. Because of incomplete information, information asymmetries in the principal–agent relationship, bounded rationality of contracting parties, the parties’ limited cognition and foresight, and transaction costs, control rights in executive compensation contracts cannot account sufficiently for *ex post* opportunism of agents. Adding contingent convertible bonds with an early trigger to executive compensation packages can create a corporate governance mechanism that helps address these shortcomings.¹²⁸

Non-contractual behavior in the form of non-contractual norms, reciprocity, trust, friendship, reputation, altruism, interdependence, and moral obligations may be unenforceable through contractual agreements, but it can shape economic action.¹²⁹ Non-contractual behaviors can harmonize conflicts and

executives and the rest of the workforce are only a few examples of opportunistic behavior of agents in the context of executive compensation.

128. See *infra* Part V.B.2 (discussing the design of early triggers in executive compensation).

129. See JEFFERY PFEFFER, *COMPETITIVE ADVANTAGE THROUGH PEOPLE* 95 (1994) (stating that executives are incentivized by social approval); Siegwart Lindenberg, *The Cognitive Side Governance*, 20 *RES. SOC. ORGS.* 47, 47 (2003); Stewart Macaulay, *Non-Contractual Relations in Business: A Preliminary Study*, 28 *AM. SOC. REV.* 55, 63–64 (1963) (stating that business behavior is guided in part by its effect on reputation); Ian R. MacNeil, *The Many Futures of Contracts*, 47 *S. CAL. L. REV.* 691, 731–33 (1974) (describing how contracts are typically coupled with non-contractual, non-economic motivations); Richard H. McAdams, *Cultural Contingency and Economic Function: Bridge-Building from the Law & Economics Side*, 38 *LAW & SOC’Y REV.* 221, 222–23 (2004) (explaining that market practices are perpetuated both through contingent and non-contingent practicalities); Richard H. McAdams, *Signaling Discount Rates: Law Norms and Economic Methodology*, 110 *YALE L.J.* 625, 636 (2001) (stating that norms are informally enforced by third-party sanctions such as ostracism); Richard H. McAdams, *The Origin, Development, and Regulation of Norms*, 96 *MICH. L. REV.* 338, 339 (1997) (describing how norms shape individual behavior that is not directly addressed by law). For a number of studies related to non-contractual behaviors, see D. Eleanor Westney, *Organisational Evolution of the Multinational Enterprise: An Organisational Sociology Perspective*, 29 *MGMT. INT’L REV.* 56 (1999); Laszlo Bruszt & David Stark, *Who Counts?: Supranational Norms and Societal Needs*, 17 *E. EUR. POLITICS & SOCIETIES* 74 (2003); Walter Powell, *Neither Market nor Hierarchy: Network Forms of Organization*, 12 *RES. ORGANIZATIONAL BEHAV.* 295 (1990) (noting that non-contractual behaviors such as altruism, reputation, and friendship can replace ineffectual legal contracts).

help sustain relationships.¹³⁰ Therefore, non-contractual behavior should be considered in the attempt to optimize manager incentives for corporate governance improvements.

V. *Contingent Capital in Executive Compensation*

The academic literature on executive compensation is largely silent on the use of contingent convertible bonds in executive compensation. Similarly, the literature on contingent capital has mostly ignored the possible application of contingent convertible bonds in executive compensation.¹³¹ The governance-improving features of contingent convertible bonds¹³² can be applied to executive compensation. Contingent convertible bonds in executive compensation can help address the core executive compensation issues that emerged after the global Financial Crisis.¹³³ More specifically, contingent convertible bonds in executive compensation packages can improve suboptimal incentives for risk-taking by executives, the alignment of executives' interests with those of different constituents, sustainability, and income inequality. This Article proposes the use of contingent convertible bonds with early triggers in executive compensation packages.

130. Powell, *supra* note 129, at 303.

131. Barclays's issuance of contingent convertible bonds to its executives precipitated some recognition of CCBs' possible benefits. Hilscher and Raviv, for instance, recognize that the effects of contingent convertible bonds in executive compensation depend on the terms of the CCB. See Jens Hilscher & Alon Raviv, *Bank Stability and Market Discipline: The Effect of Contingent Capital on Risk Taking and Default Probability* 24 (Int'l Bus. Sch., Brandeis Univ., Working Paper, 2011), available at <http://www.brandeis.edu/global/pdfs/news/HilscherRavivPaper> (showing that compensation with contingent convertible bonds can minimize risk-taking by managers).

132. See Kaal, *supra* note 14, at 295–96.

133. See Hill, *supra* note 22, at 24–31 (summarizing the core themes in recent proposals concerning executive compensation, including income inequality, incentive optimization, interest alignment, and sustainability).

A. Precedent Barclays

The proposal in this Article to use contingent capital bonds with early triggers in executive compensation is not a mere theoretical construct. European SIFIs have started to add contingent convertible bonds to executive compensation packages. The English bank Barclays has issued contingent capital securities to its executives as deferred incentive awards.¹³⁴ The contingent convertible bonds issued under Barclays's Contingent Capital Plan (CCP), however, would not be written down or converted into equity like other CCBs. Under Barclays's CCP, its "synthetic CoCos" simply lapse when the capital ratio falls below 7%.¹³⁵ More specifically, if Barclays's Group Core Tier 1 capital ratio falls below the threshold, the executives will receive no coupon payment and the Contingent Capital Award (CCA) will

134. See Rob Cox, *At Barclays, a Pay System That May Please*, N.Y. TIMES, Dec. 6, 2010, at B2 ("CoCos would not merely constitute a compensation fig leaf. Throwing the securities into bankers' stockings better aligns their interests with those of regulators hoping to avoid a repeat of the taxpayer bailouts of the last financial crisis."); BARCLAYS ANNUAL REPORT, *supra* note 17, at 167 ("[D]eferred incentive awards for 2010 are made under the Share Value Plan (SVP) in the form of Barclays shares and under the Contingent Capital Plan (CCP) in the form of contingent capital awards.").

135. E-mail from Mark Lane, Dir. of Corporate Commc'ns, Barclays Capital, to Wulf Kaal, Assoc. Professor of Law, Univ. of St. Thomas Sch. of Law (Dec. 14, 2011, 3:52 PM CST) (on file with author and with the Washington and Lee Law Review); see also Jill Treanor, *City Resists Barclays Chiefs' 'CoCo' Bonuses: Bank Plans New Bonds to Boost Top Executives' Pay*, GUARDIAN Mar. 19, 2011, at 50 ("The cocos Barclays intends to use to pay its staff do not convert into equity, however, but merely fall away once the bank's capital ratio falls below 7%."); Tommy Wilkes & Sinead Cruise, *Barclays Heads for Investor Clash over Pay*, REUTERS Apr. 26, 2011, <http://in.mobile.reuters.com/article/rbssFinancialServicesAndRealEstateNews/idINLDE73K0DP20110426?irpc=984> (last visited Nov. 14, 2012) (on file with the Washington and Lee Law Review); Jill Treanor, *Barclays Faces Shareholder Anger over Bob Diamond's Pay*, GUARDIAN Apr. 20, 2011, at 28 ("Cocos are a new type of financial instrument that can convert into equity during times of severe stress and have been issued by a handful of banks to raise fresh capital from investors.") "Barclays, though, intends to issue the cocos only to its staff. The Barclays cocos will not convert into equity but merely fall away once the bank's capital ratio falls below 7%—which is why they are being called synthetic cocos." *Id.*; see also Editorial, *Bankers and Their Bonuses*, N.Y. TIMES, Feb. 6, 2011, at WK.7 ("Cocos are long-term bonds that convert into equity if the bank hits a crisis. The idea is that paying bankers in bonds encourages them to keep the business solvent. This is even more so if a crisis triggers their conversion into shares that would become worthless in bankruptcy."); BARCLAYS ANNUAL REPORT, *supra* note 17, at 182.

remain unvested.¹³⁶ However, the unvested portion of the CCA can be released and paid out to the executives if after six months the Group Core Tier 1 capital ratio has recovered.¹³⁷ In order to take into account the possible effect of any actions taken to address the shortfall in the capital ratio on shareholders, the release may be adjusted. No coupon will be awarded if there was a downward adjustment.¹³⁸ Should the Group Core Tier 1 capital ratio not recover to above 7% five years after the suspension of the CCA, the CCA will lapse.¹³⁹

Barclays's contingent capital award to executives without a triggering event into equity and a mere lapse is beneficial because it underscores the possible use of contingent convertible bonds in executive compensation. Given European proposals on the use of contingent convertible bonds to make SIFIs safer and avoid bailouts,¹⁴⁰ Barclays's contingent convertible bond issuance to executives may also signal its willingness to consider the

136. BARCLAYS ANNUAL REPORT, *supra* note 17, at 182.

137. *Id.*; see also Barclays, Barclays PLC Notice of Annual General Meeting 2011, at 12 (Mar. 10, 2011), http://reports.barclays.com/ar10/files/pdfs/barcar10_notice.pdf.

138. *Id.*

139. *Id.*

140. *Commission Proposal for a Directive of the European Parliament and of the Council Establishing a Framework for the Recovery and Resolution of Credit Institutions and Investment Firms and Amending Council Directives 77/91/EEC and 82/891/EC, Directives 2001/24/EC, 2002/47/EC, 2004/25/EC, 2005/56/EC, 2007/36/EC and 2001/35/EC and Regulation (EU) No. 1093/2010*, COM (2012) 280/3, http://ec.europa.eu/internal_market/bank/docs/crisis-management/2012_eu_framework/COM_2012_280_en.pdf; Alex Barker & Brooke Masters, *Brussels Looks to Bank Investors Not Taxpayers*, FT.COM, June 6, 2012, <http://www.ft.com/cms/s/0/f94b6432-afeb-11e1-ad0b-00144feabdc0.html#axzz1xDA7jik4> (last visited Nov. 14, 2012) (“The Reform blueprint gives national Regulators summary power to write down unsecured creditors in failing banks and establish a network of national funds to cover resolution costs . . .”) (on file with the Washington and Lee Law Review); Gareth Murphy, Mark Walsh & Matthew Willison, *Precautionary Contingent Capital* 6 (Bank of Eng. Fin. Stability Paper No. 16, 2012), http://www.bankofengland.co.uk/publications/Documents/fsr/fs_paper16.pdf (“[R]eplacing debt with contingent capital could encourage risk-shifting behaviour.”); George M. von Furstenberg, *Contingent Capital to Strengthen the Private Safety Net for Financial Institutions: Cocos to the Rescue?* 10 (Deutsche Bundesbank Discussion Paper No. 01/2011, 2011), <http://www.econstor.eu/bitstream/10419/44598/1/647226642.pdf> (“This is the same year in which LBG later managed to launch a greatly oversubscribed cocos issue of ‘Enhanced Capital Notes’ (ECNs), for almost £9 billion (worth \$15 billion).”).

possible uses of contingent convertible bonds to prepare the entity for future crises and systemic shocks. As the first mover in this context, it is also understandable that Barclays has decided to avoid the possible governance shakeup that could be associated with a contingent convertible bond issuance that provides a conversion feature.

Barclays's issuance is commendable. Its CCA, as a deferred compensation award, is inside debt. Unlike inside debt in the form of traditional bonds, however, it does not create a fixed claim for managers with a stake in the firm's liquidation value because it falls away when converted.¹⁴¹ Barclays's CCA, therefore, also does not lower agency cost. Without a stake in the liquidation value of the SIFI, executives may also not limit their risk-taking. Barclays's executives' interests are aligned with their debt-holders' because executives are now also debt-holders, albeit in a separate class with substantially higher coupon payments. However, because the CCA falls away upon conversion, the executives' interests are still predominantly aligned with shareholders' through equity-based compensation, not through contingent convertible bond holdings.¹⁴²

Barclays's issuance of contingent convertible bonds without a conversion feature to its executives shows limited governance improvements. Without a conversion to equity, Barclays provides only limited incentives for its executives to lower risk-taking. In its current form, the CCA seems to be a mere compensation supplement for executives.

141. Contrast this outcome with the proposal in this Article to use contingent convertible bonds with early triggers in executive compensation. *See infra* Part V.B.2 (showing that contingent convertible bonds with early triggers can lower agency costs more than traditional inside debt, provide greater incentives to lower risk-taking, align executives' interests with the interests of both debt-holders and shareholders, and lower income inequality).

142. *See infra* Part V.B.2 (explaining how contingent convertible bonds in executive compensation align the interests of executives with debt-holders' interests before conversion while increasing incentives for sustainability and lowering risk-taking and income inequality). Conversely, upon conversion into equity, CCBs align executives' interests with the interests of equity-holders when it is most needed and beneficial for the SIFI, that is, early before the entity becomes insolvent. *Id.*

B. Design of Contingent Convertible Bonds in Executive Compensation

Contingent convertible bonds issued to investors can have corporate governance implications as a result of the conversion feature and the threat of equity dilution following a conversion.¹⁴³ Issuing contingent convertible bonds to executives as part of their compensation can have different governance implications. Perhaps most important for this Article is contingent capital's ability to generate powerful incentives for SIFI managers and thereby lower their risk-taking.¹⁴⁴ This applies to contingent convertible bond issuances to investors¹⁴⁵ but also, and more importantly, to the issuance of contingent capital to executives as part of their compensation.

Designing contingent convertible bonds in executive compensation to be similar to contingent convertible bonds issued to investors could result in suboptimal outcomes. Unlike contingent convertible bonds issued to investors, contingent convertible bonds may be issued to executives in volumes that may not suffice to dilute investors' equity holdings. The lower volume of contingent convertible bonds issued to executives may not provide a sufficiently strong equity infusion during a crisis. Without a design adjustment, contingent convertible bonds held by executives may not play a significant role in preparing SIFIs for future financial crises. Contingent convertible bonds in executive compensation should not be treated like other contingent capital securities. The design adjustment proposed in this Article helps to optimize the effectiveness of contingent convertible bonds in executive compensation and can improve corporate governance.

143. See Kaal, *supra* note 14.

144. *Id.*; Coffee, *supra* note 9, at 806; see also Dudley, *supra* note 90 ("If the bank encounters difficulties triggering conversion, shareholders would be automatically and immediately diluted. This would create strong incentives for bank managements to manage not only for good outcomes on the upside of the boom, but also against bad outcomes on the downside.").

145. See Kaal, *supra* note 14.

1. Automatic Institution-Specific “Early” Trigger

The literature on contingent capital trigger designs focuses on the efficient calibration of triggering events.¹⁴⁶ The efficient calibration of triggering events is central to the design of contingent capital because the trigger affects if and when the conversion takes place. The timing of conversion is crucial for possible corporate governance improvements.

The early trigger for contingent convertible bonds held by executives serves a different purpose than the trigger for contingent convertible bonds held by investors. The early trigger converts only the portion of executives’ debt to equity, before investors’ contingent convertible bonds are converted, when the entity is still sound on a micro-prudential basis. The purpose of an “early” or “strong” trigger design for CCBs held by executives is to establish an early warning system¹⁴⁷ that is independent of

146. See, e.g., Coffee, *supra* note 9, at 806 (stating that contingent capital can help prevent the risk of the first step in a financial crisis); McDonald, *supra* note 95, at 2 (arguing for a conversion triggered by market prices); Pennacchi et al., *supra* note 13, at 7 (stating that CoCos can be effective if they are designed to convert prior to severe financial stress); Squam Lake Working Grp., *supra* note 91, at 4 (arguing for a long-term debt instrument that would convert to equity before a crisis); Suresh Sundaresan & Zhenyu Wang, *On the Design of Contingent Capital with Market Trigger* 4 (Fed. Reserve Bank of N.Y., Staff Rep. No. 448, Nov. 2011), http://www.newyorkfed.org/research/staff_reports/sr448.pdf (explaining that a market trigger for conversion can provide stability to banks and markets); see also Duffie, *supra* note 96, at 5 (arguing that the trigger needs to be set so as to eliminate debt claims before a liquidity crisis); Flannery, *Stabilizing*, *supra* note 89; Flannery, *No Pain*, *supra* note 89, at 1 (introducing “reverse convertible debentures” that would convert if the issuing firm’s capital level fell below a prespecified level); Paul Glasserman & Behzad Nouri, *Contingent Capital with a Capital-Ratio Trigger* 2–3 (Working Paper, 2010), available at <http://ssrn.com/abstract=1669686> (examining conversion based on a capital-ratio trigger); Ceyla Pazarbasioglu et al., *Contingent Capital: Economic Rationale and Design Features* 18 (IMF Staff Discussion Note No. SDN/11/01, 2011), <http://www.imf.org/external/pubs/ft/sdn/2011/sdn1101.pdf> (arguing that contingent capital instruments should be considered part of a crisis prevention and management framework); GOLDMAN SACHS, *supra* note 12, at 4 (stating that contingent capital is designed to operate before resolution mechanisms become involved); SWEDISH MINISTRY OF FINANCE ET AL., SWEDISH ANSWERS TO THE DG INTERNAL MARKET AND SERVICES WORKING DOCUMENT “TECHNICAL DETAILS OF A POSSIBLE EU FRAMEWORK FOR BANK RECOVERY AND RESOLUTION” 43 (2011) [hereinafter SWEDISH MINISTRY OF FINANCE], http://www.riksbank.se/Upload/Dokument_riksbank/Kat_publicerat/Remisser/2011/Consultation_03031.1.pdf (arguing that bail-in tools may be used to minimize systemic risk).

147. The early warning nature of the early trigger design and the fact that

the capitalization needs of the entity¹⁴⁸ and to provide corporate governance improvements. To ensure that the early warning objective of the early trigger is accomplished, it is important to distinguish between the two general categories of triggers discussed in the literature: (i) regulatory triggers and (ii) transactional and automatic triggers.¹⁴⁹

Regulatory triggers give regulators the authority to decide when to convert the contingent convertible bonds. The regulatory trigger may depend on a regulator's determination that the respective bank is not viable without a public sector injection of capital or a write-off.¹⁵⁰ It can also be based on the evaluation of a bank during a stress test conducted by regulators.¹⁵¹ Regulatory triggers may lead to market uncertainty and ad hoc decisions by regulators and result in adverse market responses. Because regulatory triggers generate the highest level of uncertainty,¹⁵² they may not be the best option for the design of contingent convertible bonds in executive compensation. Regulatory discretion in triggering the conversion could create unfavorable market movements against the entity. While a regulator may decide to trigger executives' CCBs as an early warning sign in a pending crisis, the cost of supervision could be prohibitive and regulatory discretion could alienate managers. Similarly, even though a regulatory trigger could help avoid abuse by

only the executives' portion of CCBs gets converted to equity could make it easier for the SIFI to negotiate bridge loans because the entity is still sound on a micro-prudential basis. If investors' CCBs get triggered, some lenders may be unwilling to provide bridge loans. In effect, the early trigger could help avoid lenders turning away from the company when a large portion of its debt is converted into equity.

148. The benefit of providing additional capital when needed derives predominantly from the conversion of contingent convertible bonds issued to investors, not the portion of contingent convertible bonds issued to executives.

149. See Christoph K. Henkel & Wulf A. Kaal, *Contingent Capital in European Union Bank Restructuring*, 32 NW. J. INT'L L. & BUS. 191, 256–57 (2012) (comparing dual triggers and sequential triggers).

150. See GOLDMAN SACHS, *supra* note 12, at 8 (describing the attributes of a conversion trigger based on regulatory discretion).

151. *Id.*

152. See Henkel & Kaal, *supra* note 149, at 255 (“[A regulatory systemic trigger] can be a trigger that converts CCS into equity upon, for instance, a regulator’s decision that additional capital is needed.”).

executives,¹⁵³ regulatory triggers may insufficiently incentivize executives to lower risk because the executives would not have to self-monitor and adjust their risk-taking preferences to avoid the trigger.

Transactional triggers, which are also called institution-specific triggers, are privately negotiated terms for triggering events in bond contracts. They have the advantage of being flexible and tailored to the parties' subjective needs.¹⁵⁴ Automatic triggers are mostly privately negotiated terms in bond contracts that convert debt into equity when a certain capital ratio, stock price, CDS spread, index value, or other trigger is reached.¹⁵⁵ Because institution-specific automatic triggers are flexible and independent from regulatory discretion, they constitute a good option for early trigger designs. However, market-based measures may be susceptible to market manipulation and banking runs.¹⁵⁶ Accounting-based measures in institution-specific automatic triggers are arguably too infrequently updated to respond adequately in a financial crisis.

Early triggers for contingent convertible bonds in executive compensation could yield particular benefits if they convert to equity before the contingent convertible bonds that were issued to investors.¹⁵⁷ Early triggers could be based on various combinations of design features¹⁵⁸ including perhaps already-

153. See *infra* Part V.C (discussing design features to avoid abuse of CCBs).

154. *Id.*; see also SWEDISH MINISTRY OF FINANCE, *supra* note 146 (favoring a contractual trigger and arguing that a contractual trigger should come before a statutory trigger).

155. See Coffee, *supra* note 9, at 831 (listing potential conversion triggers); Flannery, *Stabilizing*, *supra* note 89, at 11–12 (same); Flannery, *No Pain*, *supra* note 89, at 15 (“Frequent trigger evaluations eliminate moral hazard incentives and expose the RCD to surprisingly low default risk.”); Glasserman & Nouri, *supra* note 146, at 2 (examining contingent capital with a capital-ratio trigger); McDonald, *supra* note 95, at 2 (proposing contingent capital that “converts to equity when the bank’s own stock price falls sufficiently, and then only if a broad financial stock index is also below a trigger value”).

156. See Coffee, *supra* note 9, at 841 (addressing concerns of market manipulation); Flannery, *Stabilizing*, *supra* note 89, at 18–20 (same); Flannery, *No Pain*, *supra* note 89, at 20 (acknowledging the possibility of manipulation); McDonald, *supra* note 95, at 3 (same); Glasserman & Nouri, *supra* note 145, at 3 (“[M]arket values could potentially be manipulated to trigger conversion.”).

157. See *infra* Part V.B.2.

158. See Kaal & Henkel, *supra* note 14, at 251–54 (suggesting a sequential trigger design with a first trigger that converts CCBs into equity when the SIFI

existing designs of previously issued contingent convertible bonds to investors. An entity that has issued contingent convertible bonds to investors could simply lower the executives' trigger threshold in contrast with that of the CCBs that were issued to investors.¹⁵⁹ In the case of automatic institution-specific triggers, lowering the trigger could be accomplished by adjusting the capital ratio, stock price, CDS spread, index value, or other triggering event for the executives' CCBs to cause the conversion at an earlier point during the financial weakening of the respective entity.¹⁶⁰

In the case of contingent convertible bonds with a capital-ratio trigger,¹⁶¹ an "early" trigger for executives' contingent convertible bonds could mean a 10% capital ratio whereas the "late" trigger for the contingent convertible bonds of investors could be around 8%.¹⁶² Regulatory capital requirements and industry standards for SIFIs or other banks that are categorized

is still sound but encounters early signs of financial weakening, and a second trigger that increases the voting rights of CCBs holders after conversion if the SIFI does not recover). If contingent convertible bonds are issued to executives as part of a contingent convertible bond issuance with a sequential trigger design, the design should be adjusted to avoid potential abuse by executives. Executives may use the early trigger to obtain cheap stock in a crisis. Executives' portion of the contingent convertible bond issuance should include a mandatory holding period of at least five years after conversion. Because executives' interests could be adverse to those of CCBs investors, executives' portion of the CCBs issuance should not include a voting rights increase.

159. Problems with trigger mechanisms have been discussed at length in the literature. *See, e.g.,* Coffee, *supra* note 9, at 821, 827–29 (arguing that accounting-based measures may be too infrequently updated to respond effectively in a financial crisis, while regulatory triggers can lead to ad hoc decisions by regulators that result in market uncertainty and adverse market responses); McDonald, *supra* note 95, at 9–12, 22 (describing how market-based measures may be susceptible to market manipulation and banking runs).

160. Although it may be difficult to calibrate the trigger to provide for a specific time period before the conversion of investors' CCBs, the early trigger should give sufficient warning of the weakening financial condition of the entity.

161. The capital ratio of an entity is the percentage of the entity's capital to its risk-weighted assets. *See* Glasserman & Nouri, *supra* note 146, at 1–4 (discussing contingent capital with a capital-ratio trigger and partial and ongoing conversion).

162. This is just a numerical example that does not take other factors into account. The purpose of this Article is not to suggest specific design features for "early" triggers. Rather, the purpose here is to show that the nature of ownership can have an impact on trigger designs and their potential to improve corporate governance.

as “well-capitalized” may change over time.¹⁶³ To be effective, early triggers should be well above the threshold for capital requirements under Basel III.¹⁶⁴ But early triggers in the form of capital ratios should be independent of regulatory demands pertaining to capitalization levels.

2. The Benefits of “Early” Triggers

Automatic institution-specific early triggers for contingent convertible bonds issued to executives may increase the overall effectiveness of these bonds and improve executive compensation policies.¹⁶⁵ The benefits of early triggers may partially depend on whether the entity issues contingent convertible debt only to executives or to executives and investors.¹⁶⁶ The early trigger for the portion of contingent convertible bonds held by executives can be an early warning system and buffer for contingent convertible bond investors and shareholders.¹⁶⁷ Early triggers in contingent convertible bonds issued to executives provide several advantages: they lower risk-taking by executives and increase shareholder monitoring. They also offer a better signal for default

163. The recognition of contingent capital as Tier I Capital and the capital adequacy standards under Basel III may also influence the adequacy of an early trigger for contingent convertible bonds held by executives. *See* Kaal & Henkel, *supra* note 14, at 240 (examining the recognition of contingent capital as Tier I Capital).

164. Under Basel III, banks will have to hold better quality capital. Banks will have to hold minimum capital representing 8% of risk-weighted assets (RWA) as well as an additional capital buffer of 2.5% of RWA. 7% of RWA must be comprised of Tier 1 common equity. BASEL COMM. ON BANKING SUPERVISION, BANK FOR INT’L SETTLEMENTS, BASEL III: A GLOBAL REGULATORY FRAMEWORK FOR MORE RESILIENT BANKS AND BANKING SYSTEMS 1, 64 (2010), <http://www.bis.org/publ/bcbs189.pdf>.

165. *See supra* Part V.

166. Issuing contingent convertible bonds with the same design features to both investors and executives creates a risk of management opportunism if managers are heavily involved in the drafting process. Management opportunism can lead to socially suboptimal designs. *See infra* Part V.C (elaborating on design features to prevent abuse).

167. Investors would be able to anticipate a possible conversion of their CCBs if the early trigger resulted in a conversion of executives’ CCBs. The warning and signaling function of the early trigger would benefit CCBs investors and shareholders of the entity, which may be diluted if the investors’ CCBs are converted to equity.

risk and align executives' interests with a more diverse group of constituents.¹⁶⁸

Studies have shown that executives who hold more debt relative to their equity holdings take fewer risks when managing an entity.¹⁶⁹ Increasing the debt portion of executive

168. These benefits could help make contingent convertible bonds generally more marketable. In the United States, where the tax treatment of these hybrid securities is still unclear, many investors still perceive contingent convertible bonds as a hybrid instrument with few attractive features despite a substantial coupon rate. See Satyajit Das, *Investors Must Hope 'Cocos' Never Show Their Dark Side*, FIN. TIMES, May 1, 2012, at 22 ("For investors, hybrids are a deeply subordinated investment with uncertain income and significant capital risk."); cf. Liam Vaughan, *Investors May Shun Banks' Contingent Convertibles as Regulator Adds Limits*, BLOOMBERG Dec. 13, 2011, <http://www.bloomberg.com/news/2011-12-13/investors-may-shun-coco-bonds-approved-by-european-regulators.html> (discussing negative investor reactions to contingent convertible bonds issued by European banks). The early trigger design of CCBs issued to executives could help signal the entity's intent to address default risk and systemic risk, to lower risk incentives, to align executives' interests with creditor interests, and to increase monitoring and other corporate governance improvements. This could generate increased investor interest and help create a market for contingent convertible bonds in the United States.

169. Edmans & Liu, *supra* note 82, at 77–78 (explaining how debt compensation aligns managers' incentives with the interests of the firm's creditors and emphasizing the importance of a balanced mix of equity and debt in compensation); Gerakos, *supra* note 8, at 11–12 (finding that pension benefits may reduce risk-taking); Tung & Wang, *supra* note 8, at 1 ("Theory predicts and empirical evidence supports the claim that as the proportion of CEO wealth held in the form of debt increases relative to CEO equity holdings, risk taking declines . . ."); Wei & Yermack, *supra* note 8, at 3–5 (discussing the effect of debt compensation on volatility). Other studies reject the idea that corporate governance and executive compensation are correlated. See Core, Guay & Larcker, *supra* note 19, at 28 ("[A] number of scholars and practitioners either implicitly or explicitly take the view that contracting arrangements are largely inefficient and do not reduce agency costs."); Mary Ellen Carter & Luann J. Lynch, *An Examination of Executive Stock Option Repricing*, 61 J. FIN. ECON. 207, 222 (2001) (finding no relationship between institutional ownership and the repricing decision); Michael B. Dorff, *Does One Hand Wash the Other? Testing the Managerial Power and Optimal Contracting Theories of Executive Compensation*, 30 J. CORP. L. 255, 268–69 (2004) (describing the Managerial Power Hypothesis and the correlation between executive compensation and performance); Marilyn F. Johnson et al., *Stakeholder Pressure and the Structure of Executive Compensation* 16–17, 38 (Working Paper, 1997), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=41780 (examining the effect of shareholder proposals on performance); see also Ronald C. Anderson & John M. Bizjak, *An Empirical Examination of the Role of the CEO and the Compensation Committee in Structuring Executive Pay*, 27 J. BANKING & FIN. 1323, 1324–26 (2003) (discussing the role of compensation committees in determining executive pay); Kam-Ming Wan, *Independent Directors, Executive*

compensation packages with contingent convertible bonds can help lower managers' risk incentives.¹⁷⁰ This effect could be even more pronounced depending on the proportion of CCBs included in the total compensation of executives. However, path dependencies in the executive compensation culture in the United States will likely make it difficult for executive compensation policies to move entirely to contingent convertible bonds or other debt instruments. It is more likely that compensation committees will continue to combine debt instruments with equity-based compensation.

The conversion of contingent convertible bonds from debt to equity, if triggered, would mean that executives hold a highly discounted equity interest in the entity.¹⁷¹ This may in turn depress the stock price of the respective entity.¹⁷² A negative effect on the stock price of the entity may lower the value of the

Pay, and Firm Performance 23 (Working Paper, 2003), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=392595 (“[There is] no systematic evidence that board composition affects change in CEO compensation.”).

170. Calcagno & Renneboog, *supra* note 82, at 1796 (“[I]ncrease in the leverage of Anglo-American corporations has also stimulated the interest in the role of debt as a direct incentive device . . . including risky debt in the capital structure changes the ‘incentive to give incentives’”); Edmans & Liu, *supra* note 82, at 77–78 (justifying the use of debt as efficient compensation and arguing that a debt bias can improve effort as well as deter risk-shifting); Krawcheck, *supra* note 82, at 108–09 (suggesting that CEOs with large inside debt holdings will display lower levels of risk-seeking behavior); Listokin, *supra* note 82 (proposing debt compensation as an incentive for managers during bankruptcy); Ortiz-Molina, *supra* note 82, at 70 (“[T]he agency costs of debt can also be reduced by using convertible debt”); Edmans, *supra* note 82, at R1 (suggesting debt compensation as a means to reduce risk); Bolton, Mehran & Shapiro, *supra* note 19, at 2 (“[M]arket participants do indeed believe that linking executive compensation to default risk will reduce the riskiness of the firm.”); Tung & Wang, *supra* note 8, at 5 (“[Our] empirical evidence provides a rationale for the use of inside debt compensation in structuring executive compensation in the banking context.”).

171. See *infra* note 192 and accompanying text (discussing the potential for abuse).

172. Depending on financial institutions' implementation of contingent convertible bonds and the evolution of the market in CCBs, the potential effect of CCBs conversion on stock prices may be evaluated in future research. See Sundareshan & Wang, *supra* note 146, at 25 (suggesting that under their design of contingent capital, where the state-contingent conversion ratio prevents value transfer, the prices would be kept “smooth’ at conversion”).

equity portion of executives' compensation packages.¹⁷³ The conversion thus not only affects the debt portion of executives' compensation but also the equity portion after the contingent convertible bonds portion is converted and when equity is increasingly important to maintain the overall value of executive compensation.¹⁷⁴ The combined effect could be a strong incentive for executives to take lower risks in order to avoid the triggering event.¹⁷⁵ The implicit reduction in agency costs¹⁷⁶ may be difficult to measure without actual implementation. The early conversion feature does not only create incentives for managers to lower their risk-taking; indeed, the implicit threat of financial loss for all contingent convertible bond investors, in combination with the threat of dilution to existing shareholders, could create overall increased pressure on managers to avoid the conversion of any portion of CCB, including the conversion of investors' CCBs.

The issuance of contingent convertible bonds with early triggers to executives may motivate shareholders, CCBs

173. This effect would be multiplied if the design of early CCBs triggers also prohibited the exercise of stock options in anticipation of the early trigger and after the triggering event. It could be technically difficult to delineate what "in anticipation of the early trigger" means. Defining a suitable time period for the prohibition before the early trigger could be equally difficult.

174. There is a risk that opportunism may lead managers to increase the risk profile of the entity after conversion to regain the lost equity value in their portfolio. However, such action is not likely to occur because an increase in the risk profile would affect the ability of the entity to obtain other forms of financing such as bridge loans. The increase in the risk profile after conversion is also improbable because the early conversion would likely increase monitoring by CCBs investors and shareholders. Boards may decide to let managers go upon the occurrence of an early trigger.

175. Managing to avoid the triggering event alone may be possible by ignoring the other interests of various constituents. However, this Article does not attempt to provide a holistic approach to corporate governance reform in SIFIs.

176. For purposes of this Article, "agency cost" is defined as the cost for the corporation as principal to supervise its executives as agents and protect investors and other constituents against agents' opportunism. Executive compensation agreements can be seen as attempts to reduce agency costs. See Jensen & Murphy, *supra* note 7, at 138, 139–40 (explaining that executive compensation agreements and compensation awards are mostly attempts by the principal to minimize agency costs, i.e., minimize their agents' opportunism and tendency to be risk averse, to invest in suboptimal or idiosyncratic projects, to shirk, etc.); cf. Bebchuk & Fried, *supra* note 65, at 1917–18 (discussing the manner in which some forms of compensation agreements increase agency costs by incentivizing risk-taking and explaining how this can be fixed).

investors, and other creditors to increase their monitoring. Because of an implicit expectation that the government will provide bailout funding due to the nature of the entity, ordinary SIFI creditors may have suboptimal incentives to monitor the performance of management.¹⁷⁷ These incentives may change if a SIFI issues contingent capital securities with a conversion feature for investors and with an early conversion feature for its executives.¹⁷⁸ Should the conversion of executives' contingent convertible bonds occur, investors' CCBs would likely be next in line for conversion.¹⁷⁹ In effect, the conversion of the contingent convertible bonds issued to executives provides early notice to

177. See Bebchuk & Spamann, *supra* note 1, at 266–67 (describing how, unlike many other corporations, SIFIs are subject to a high probability of default and high leverage); see also Margaret M. Blair, *Financial Innovation, Leverage, Bubbles and the Distribution of Income*, 30 REV. BANKING & FIN. L. 225, 277 (2011); David Jones, *Emerging Problems with the Basel Capital Accord: Regulatory Capital Arbitrage and Related Issues*, 24 J. BANKING & FIN. 35, 38 (2000) (explaining how deposit insurance helps make debt cheaper than equity); Julian Jeffrey Gordon & Colin Mayer, *The Micro, Macro and International Design of Financial Regulation* 7 (Columbia Law & Econ. Working Paper No. 422, 2012) (“[G]overnment securities are far less secure than was previously thought and in the process of seeking to rescue financial institutions, governments may undermine the security of the assets that they have required their banks to hold.”); Arthur E. Wilmarth Jr., *Reforming Financial Regulation to Address the Too-Big-To-Fail Problem*, 35 BROOK. J. INT’L L. 707, 741–43 (2010) (describing the moral hazard created by government insurance); T.S. Chow & Jay Surti, *Making Banks Safer: Can Volcker and Vickers Do It?* 3 (IMF Working Paper No. 11/236, 2011), http://www.bankofengland.co.uk/publications/Documents/events/ccbs_workshop2012/paper_SurtiChow.PDF; Arthur E. Wilmarth Jr., *Narrow Banking: An Overdue Reform that Could Solve the Too-Big-To-Fail Problem and Align U.S. and U.K. Regulation of Financial Conglomerates* 4 (GWU Legal Stud. Research Paper No. 2012-40, 2012), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2050544 (describing the moral hazard created by government insurance).

178. Once a SIFI has issued contingent convertible bonds with conversion features, creditors are likely to be aware of the triggering events in the executives' portion of CCBs because the triggers become public information. If a SIFI issues CCBs, its intent is likely to avoid future bailouts. Creditors would be aware of the SIFI's intent and the measures taken to avoid a bailout and may be less likely to rely on future bailouts.

179. The proximity of conversion of executives' CCBs and investors' CCBs will depend on the trigger design. If the entity uses an institution-specific early automatic trigger based on a capital ratio for executives' CCBs and a similar trigger with a less aggressive triggering threshold for investors' CCBs, the proximity of conversion would depend on the difference in capital ratio in the respective trigger designs of executives' CCBs and investors' CCBs.

investors that their CCBs may also convert into equity unless they address the underlying issues. Accordingly, managers would likely be subjected to increased scrutiny by investors who fear the conversion of their contingent convertible bonds into near-worthless equity. Shareholders who fear the loss of their entire investment should the entity go into bankruptcy may also put managers under increased pressure to lower their risk-taking.¹⁸⁰ The impending threat of dilution for existing shareholders due to the possible conversion of the contingent convertible bonds held by investors may motivate existing shareholders to get actively involved in the governance of the entity.¹⁸¹ Shareholder voting on management proposals to address perceived concerns could increase. The implicit threat of financial loss for all contingent convertible bonds investors in combination with the threat of dilution to existing shareholders could create overall increased pressure on managers to avoid the conversion of any portion of the CCBs.

Early triggers for contingent convertible bonds in executive compensation packages may increase and optimize the signaling of default risk at a time when the risk of default is present but still somewhat remote. Various existing measures signal default risk.¹⁸² Early triggers in executive compensation, however, signal

180. A possible downside of early conversion as a warning signal could be added pressure on the stock price, which could have negative effects in a pending crisis.

181. See Lucian A. Bebchuk, *The Case for Increasing Shareholder Power*, 118 HARV. L. REV. 833, 836 (2005) (arguing that increased shareholder democracy will improve corporate governance and enhance managerial accountability, thereby curbing abuses of authority and misconduct); Lucian A. Bebchuk & Assaf Hamdani, *Federal Corporate Law: Lessons from History*, 106 COLUM. L. REV. 1793, 1804 (2006) (“With stock ownership divided among many owners, shareholders have little incentive to exert effort to monitor management and actively intervene in corporate decisionmaking.”); Bernard S. Black, *Shareholder Passivity Reexamined*, 89 MICH. L. REV. 520, 530–66 (1990) (providing an overview of various legal obstacles to shareholder action).

182. Existing signaling mechanisms for default risk, such as credit default swap pricing and Capital Asset management, Management, Earnings, and asset Liability management (CAMEL) ratings, do not seem to have provided sufficient protection for SIFIs during the past crisis. CAMEL ratings and credit default swap pricing did not suffice to signal default risk in the cases of Lehman Brothers, Bear Stearns, and Merrill Lynch. See generally Aline Darbellay & Frank Partnoy, *Credit Rating Agencies and Regulatory Reform*, in RESEARCH HANDBOOK ON THE ECONOMICS OF CORPORATE LAW (Claire A. Hill & Brett H. McDonnell eds., 2012); Tao Sun, *Identifying Vulnerabilities in Systemically-*

an entity's default risk much sooner than previously proposed triggers for contingent convertible bonds issued to investors and other mechanisms. The benefits of this early default signal include more time for managers to (1) adjust to the current market conditions, (2) lower their risk-taking, and (3) deleverage in a comparatively liquid market environment. The improved signaling of default risk through the early conversion of executives' CCBs may help address the systemic risks that SIFIs pose. Early triggers in CCBs, when used in executive compensation, can improve the core function of CCBs, that is, lowering systemic risk.

Important Financial Institutions in a Macro-Financial Linkages Framework (IMF Working Paper No. 11/111, 2011), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1848543. Although CAMEL ratings may reach the public through bank financial statements and other disclosures made after a downgrade, CAMEL ratings are only released to top management. See Allen N. Berger & Sally M. Davies, *The Information Content of Bank Examinations*, 14 J. FIN. SERVS. RES. 117, 119 (1994) (“[B]ank examination data currently are confidential . . .”); R. Alton Gilbert, Kevin L. Kliesen, Andrew P. Meyer & David C. Wheelock, *Federal Reserve Lending to Troubled Banks During the Financial Crisis* 9 (Fed. Res. Bank of St. Louis, Working Paper No. 2012-006A, 2012), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2038578 (“Examination ratings are not released publicly, but are made available both to the examined institution and to supervisory authorities . . .”); John S. Jordan, Joe Peek & Eric S. Rosengren, *The Impact of Greater Bank Disclosure Amidst a Banking Crisis* 4 (Fed. Res. Bank of Bos., Working Paper No. 99-1, 1998), http://www.bos.frb.org/economic/wp/wp1999/wp99_1.pdf (“Most countries disclose little, if any, of their supervisory assessment of banks.”); Donald P. Morgan, *Judging the Risk of Banks: What Makes Banks Opaque?* 1–7 (Fed. Res. Bank of N.Y., Working Paper No. 98-05, 1998), http://www.newyorkfed.org/research/staff_reports/research_papers/9805.pdf (discussing the characteristics of banks that make it difficult for outsiders to judge their level of risk). There is also some evidence that on-site bank exams can provide additional information beyond what is publicly available. See Robert DeYoung, Mark J. Flannery, William W. Lang & Sorin M. Sorescu, *The Informational Advantage of Specialized Monitors: The Case of Bank Examiners* 23 (Fed. Res. Bank of Chi., Working Paper No. 98-4, 1998), http://www.chicagofed.org/digital_assets/publications/working_papers/1998/wp98_4.pdf (finding that CAMEL ratings contain more information than is publicly available). CAMEL ratings also may require on-site examinations to verify the accuracy of reports and to gather further supervisory information. See Jose A. Lopez, *Using CAMELS Ratings to Monitor Bank Conditions*, FRBSF ECON. LETTER (Fed. Res. Bank of S.F.), June 11, 1999, available at <http://www.frbsf.org/econsrch/wklyltr/wklyltr99/el99-19.html> (describing on-site examinations); Bolton, Mehran & Shapiro, *supra* note 19, at 1 (suggesting a reduction in excessive risk-taking by tying CEO compensation to the financial firm's credit default swap spread—a high CDS results in lower compensation and vice versa).

The hybrid nature of contingent convertible bonds and the early conversion from debt to equity aligns the interests of executives equally with creditors and shareholders.¹⁸³ Before the unlikely but theoretically possible conversion into equity, contingent convertible bonds in executive compensation align the interests of executives with holders of traditional debt and debt in the form of contingent convertible bonds. Because executives would be holding securities with long-term maturities and coupon payments, executives would have incentives to manage the company with the interests of debt-holders in mind.¹⁸⁴ How well these incentives work may depend on the proportion of debt in the compensation packages of executives. Managers' level of risk-taking and their strategic management of the entity could become more focused on long-term and sustainable development as a result of the interest alignment between managers and debt-

183. Traditionally, because shareholders elected directors and senior executives played a major role in this process, executives' interests were aligned with shareholder interests. See generally Bebchuk & Fried, *supra* note 1, at 655–56 (showing the enormous influence CEOs can have in the election of directors and other governance issues). The emphasis on equity-based instruments in executive compensation has made a large proportion of executives' compensation dependent on stock performance, which aligns executives' interests with the interests of shareholders. See Core, Guay & Larcker, *supra* note 19 (synthesizing the broad literature on equity compensation and executive incentives, and highlighting topics that seem especially appropriate for future research); Michael C. Jensen & Kevin J. Murphy, *Performance Pay and Top-Management Incentives*, 98 J. POL. ECON. 225, 226–27 (1990) (estimating the magnitude of the various mechanisms through which compensation policy can provide value-increasing incentives, including performance-based bonuses and salary revisions, stock options, and performance-based dismissal decisions); Meulbroek, *supra* note 19, at 5 (“Finance theory has long made the case for the use of equity-linked compensation plans as an effective means to align managers' incentives with those of shareholders. In the last decade, finance practice, particularly in the United States, has embraced this prescription”); cf. Guido A. Ferrarini & Maria C. Ungureanu, *Economics, Politics, and the International Principles for Sound Compensation Practices: An Analysis of Executive Pay at European Banks*, 64 VAND. L. REV. 431, 460 (2011) (explaining that the French banking model endured the crisis better than the traditionally liberal British model because of heavy regulation). Without a substantial portion of compensation in the form of debt instruments, managers may give into shareholder pressure to take higher risks for higher returns.

184. Managing the entity in the interest of debt-holders has implications for risk-taking, income inequality, and the sustainable development of the entity. See *infra* Part VI (discussing the impact of the proposed design on income inequality and sustainability).

holders and managers' changed incentives.¹⁸⁵ Because the early trigger for executives' contingent convertible bonds also protects shareholders and their interest in the continuing existence of the entity,¹⁸⁶ executives' interests may be equally aligned with shareholders¹⁸⁷ at a time when it is most needed.¹⁸⁸

If contingent convertible bonds replace a portion of equity-based compensation, contingent convertible bonds could lower income inequality¹⁸⁹ and increase sustainability. If financial institutions begin using CCBs in executive compensation packages, depending on the calibration of the packages, the

185. Given that the average tenure of executives in the United States is less than seven years, interest alignment between managers and debt-holders is somewhat limited. However, debt in executive compensation could help shift executives' management style so that it increasingly includes a long-term perspective. Managing for the long-term, in turn, could translate into longer tenures for executives. For a discussion of the increasing turnover rate of CEOs in the United States, see, for example, Steven N. Kaplan & Bernadette A. Minton, *How Has CEO Turnover Changed?*, 12 INT'L REV. FIN. 57, 58 (2012) (stating that a study of CEO tenure revealed that "[a]nnual turnover is 15.8% from 1992 to 2007, implying an average tenure as CEO of less than 7 years Since 2000, total CEO turnover increases to about 16.8%, implying an average CEO tenure of about 6 years."); see also *The Doofus Factor: How Can You Tell a Good Board of Directors from a Bad One?* ECONOMIST, Sept. 17, 2011, at 69, available at <http://www.economist.com/node/21529101> ("During the past decade the average tenure of chief executives has fallen to 6.6 years from 8.1 years, according to a recent study by Booz & Co, a consultancy.").

186. See *infra* Part VI (elaborating on improved incentives for lowering risk, improved signaling of default risk, and improved monitoring).

187. Regardless of compensation policies, the strong relationship between managers and shareholders will likely endure. It is unlikely that firms will compensate managers entirely with debt. See *infra* Part VI.A (discussing contingent capital as inside debt).

188. The early trigger design could help align the interests of the two most powerful constituents in a financial institution at a time when it is most needed. Because executives become equity holders at a time when their actions should be most aligned with equity holders' interests, that is, early before a possible insolvency of the entity, the early trigger design enables a shift in executive compensation and a corresponding interest alignment when it is most needed. Although the interests of managers are likely to be more aligned with those of shareholders, executives who hold hybrid securities may be incentivized to manage for the long-term and sustainable development of the entity and avoid volatility.

189. See Brett H. McDonnell, *Two Goals for Executive Compensation Reform*, 52 N.Y.L. SCH. L. REV. 586, 588, 596–97 (2007–2008) (arguing that reforming executive compensation seems to be moderately important in reducing inequality in the United States).

replacement of equity-based compensation with contingent convertible bonds could lower the overall compensation of executives. Although contingent convertible bonds would likely pay a substantial coupon rate,¹⁹⁰ the return for executives would likely be incomparable with the return attainable with stock options and other equity-based compensation. If stock options are replaced with CCBs, not only would the total compensation for executives be lowered; short-termism and executives' focus on quarterly stock price performance would also be disincentivized. Executives are more likely to consider the sustainable development of the entity when stock price appreciation no longer directly benefits them personally. However, it is important to note that path dependencies in the executive compensation culture¹⁹¹ in the United States could make the lowering of overall compensation for executives and the addition of new design elements in executive compensation difficult.

C. Design Features to Avoid Abuse

If SIFI executives are compensated with contingent convertible bond instruments, opportunism could lead them to manipulate the triggering event to obtain stock upon contingent convertible bonds' conversion at a depressed price before or during a crisis.¹⁹² For instance, the conversion into equity at a

190. See Kaal, *supra* note 98 and accompanying text (discussing the coupon rate of between 7% and 9.2% paid by previously issued CCBs).

191. See generally Reinhard H. Schmidt & Gerald Spindler, *Path Dependence and Complementarity in Corporate Governance*, in CONVERGENCE AND PERSISTENCE IN CORPORATE GOVERNANCE 114 (Jeffrey N. Gordon & Mark J. Roe eds., 2004); Edward S. Adams, *Corporate Governance After Enron and Global Crossing: Comparative Lessons for Cross-National Improvement*, 78 IND. L. J. 723, 764–65 (2003); Lucian A. Bebchuk & Mark J. Roe, *A Theory of Path Dependence in Corporate Ownership and Governance*, 52 STAN. L. REV. 127, 129–34 (1999) (proposing the “path dependence theory” where a country’s corporate law structure depends on the history of corporate law in that country); Hill & McDonnell, *supra* note 1; Amir N. Licht, *The Mother of All Path Dependencies: Toward a Cross-Cultural Theory of Corporate Governance Systems*, 26 DEL. J. CORP. L. 147 (2001). *But cf.* S. J. Liebowitz & Stephen E. Margolis, *Path Dependence, Lock-In, and History*, 11 J.L. ECON. & ORG. 205, 205–06 (1995) (challenging path dependence theory).

192. See Murphy, Walsh & Willison, *supra* note 140, at 7, 10 (“[T]he trigger metric could be undermined if it could be manipulated . . .”). “With a trigger

value of \$3 with a book value of \$10 would create a substantial payoff. Opportunism may lead executives to disregard the impact of triggering the conversion on their reputation and career development prospects if the payoff is substantial.

Without rules and regulatory guidance regarding the design and issuance of contingent convertible bonds, SIFI executives may only be curtailed by their fiduciary duties. Existing fiduciary duties could prove insufficient to limit opportunism and abuse if the payoff for executives is substantial.¹⁹³ Contingent convertible bondholders, regular bondholders, and shareholders would benefit from broader fiduciary duties.¹⁹⁴

metric based on a bank's equity price, there would be a risk that investors may short-sell a bank's equity to drive the equity price down in the absence of any change in the underlying value of a bank's assets and trigger a conversion event that results in a transfer of value from existing equity holders to precautionary contingent capital holders" *Id.* "[T]he risk of using market capitalisation to define the trigger event is that it could give investors an incentive to manipulate the equity price to trigger a conversion." *Id.*

193. See Claire A. Hill & Brett H. McDonnell, *Fiduciary Duties: The Emerging Jurisprudence*, in RESEARCH HANDBOOK ON THE ECONOMICS OF CORPORATE LAW 133 (Claire A. Hill & Brett H. McDonnell eds., 2012); Johnson & Sides, *supra* note 26, at 1194 ("[I]n corporate law, where the duties are broad and usefully ill-defined—decision-makers must act with 'loyalty' and 'care' and in 'good faith,' but are accorded wide latitude in discharging their governance responsibilities in conformance with these standards."); Donald C. Langevoort, *Agency Law Inside the Corporation: Problems of Candor and Knowledge*, 71 U. CIN. L. REV. 1187, 1196 (2003) (stating that an impression of tolerance of bad habits is created by focusing solely on a board's duty of inquiry without analyzing the underlying breach of managers' duty); A. Gilchrist Sparks III & Lawrence A. Hamermesh, *Common Law Duties of Non-Director Corporate Officers*, 48 BUS. LAW. 215, 217 (1992) (explaining the general proposition that corporate officers owe the same fiduciary duties as those owed by directors); Randall S. Thomas & Harwell Wells, *Executive Compensation in the Courts: Board Capture, Optimal Contracting, and Officers' Fiduciary Duties*, 95 MINN. L. REV. 846, 848–49 (2011) (arguing that courts have a stronger doctrine they can employ when called on to monitor abuses in executive compensation—the fiduciary duties of officers); see also Lyman P.Q. Johnson & David Millon, *Recalling Why Corporate Officers Are Fiduciaries*, 46 WM. & MARY L. REV. 1597, 1600, n.10 (2005) ("[C]ourts and commentators routinely describe the duties of directors and officers together, and in identical terms."); Thomas J. Moloney, Paul R. St. Lawrence, III & Angela F. Hamarich, *Fiduciary Duties, Broker-Dealers and Sophisticated Clients: A Mis-Match That Could Only Be Made in Washington*, 3 J. SEC. L. REG. & COMPLIANCE 336, 337–42 (2010) (providing an overview of the fiduciary-duty debate); Cheryl L. Wade, *Fiduciary Duty and the Public Interest*, 91 B.U. L. REV. 1191, 1200–02 (2011) (analyzing fiduciary duties in the recent economic downturn).

194. See *Wall Street Fraud and Fiduciary Duties: Can Jail Time Serve as an*

Adequate Deterrent for Willful Violations?: Hearing Before the S. Subcomm. on Crime and Drugs, Comm. on the Judiciary, 111th Cong. 835 (2010) (statement of John C. Coffee Jr., Adolf A. Berle Professor of Law, Columbia University Law School) (arguing that legislation is needed “to protect investors and to maintain market transparency and economic efficiency” and to return to the traditional norm that brokers should seek “to serve their clients (and not seek to profit from their losses)”); Danny Busch & Deborah A. DeMott, *Liability of Asset Managers (Introduction)*, in *LIABILITY OF ASSET MANAGERS* (Danny Busch & Deborah A. DeMott eds., 2012); TAMAR FRANKEL, *FIDUCIARY LAW* (2011) (clarifying the theoretical underpinning for an expansive version of fiduciary duties and applying fiduciary theory to such contemporary problems as those in the securities industry and the professions, as well as to corporate issues such as executive compensation); Thomas Lee Hazen, *Stock Broker Fiduciary Duties and the Impact of the Dodd–Frank Act*, 15 N.C. BANKING INST. 47, 47 (2011) (“[A]lthough the existing framework for broker-dealer regulation is robust, it could be fine-tuned by possibly adding an express fiduciary duty requirement as well as more specific rule-based prohibitions.”); Douglas C. Michael, *The Corporate Officer’s Independent Duty as a Tonic for the Anemic Law of Executive Compensation*, 17 J. CORP. L. 785, 786, 824 (1992) (arguing that officers should have a “duty not to accept unreasonable compensation” and that courts should use officers’ fiduciary duties to engage in a sweeping review of the reasonableness of compensation); see also Lisa M. Fairfax, *Spare the Rod, Spoil the Director? Revitalizing Directors’ Fiduciary Duty through Legal Liability*, 42 HOUS. L. REV. 393, 394 (2005) (“[L]egal liability represents an essential mechanism for ensuring directors’ fidelity to their fiduciary duties and for questioning reform efforts that do not include such liability.”). For advocates of a fiduciary duty to bondholders, see, for example, LAWRENCE E. MITCHELL, *PROGRESSIVE CORPORATE LAW* (Lawrence E. Mitchell ed., 1995); Margaret M. Blair, *Stakeholders as Shareholders, Ownership and Control: Rethinking Corporate Governance for the Twenty-First Century*, 109 HARV. L. REV. 1150 (1996); William W. Bratton Jr., *Public Values and Corporate Fiduciary Law*, 44 RUTGERS L. REV. 675 (1992); Jensen & Meckling, *supra* note 30, at 305; David Millon, *Communitarians, Contractarians, and the Crisis in Corporate Law*, 50 WASH. & LEE L. REV. 1373 (1993); David Millon, *Redefining Corporate Law*, 24 IND. L. REV. 223 (1991); Lawrence E. Mitchell, *A Critical Look at Corporate Governance*, 45 VAND. L. REV. 1263 (1992); Wai Shun Wilson Leung, *The Inadequacy of Shareholder Primacy: A Proposed Corporate Regime that Recognizes Non-Shareholder Interests*, 30 COLUM. J.L. & SOC. PROBS. 587 (1997). *Contra Wall Street Fraud and Fiduciary Duties: Can Jail Time Serve as an Adequate Deterrent for Willful Violations?: Hearing Before the S. Subcomm. on Crime and Drugs, Comm. on the Judiciary*, 111th Cong. 835 (2010) (statement of Larry E. Ribstein, Associate Dean for Research & Mildred Van Voorhis Jones Chair, University of Illinois College of Law); Larry E. Ribstein, *Fencing Fiduciary Duties*, 91 B.U. L. REV. 899 (2011) (arguing for a more precise definition and more limited application of fiduciary duties because their usefulness depends on differentiation from other duties that apply in other settings). For cases that discuss officers’ fiduciary duties, see generally Hill & McDonnell, *supra* note 193, at 133.

In practice, the proportion of contingent convertible bond instruments in the total mix of executive compensation packages will likely be limited, which may counteract possible abuse. A mandatory holding period for all equity securities held by executives in the entity they manage¹⁹⁵ after the conversion of their contingent convertible bonds into equity takes place would help limit possible abuse. A broader approach to curtail abuse could entail the cancellation of any stock options or other equity-based pay arrangements in the compensation packages of executives upon the conversion of executives' CCBs. Ultimately, manager/agent opportunism that results from the design of CCBs triggers and managers' participation in the design may necessitate regulatory guidance in the form of general principles or best practice guidelines for the design of CCBs and their issuance to investors and executives.

Although executives are unlikely to be directly involved in designing their own contingent convertible bond awards, executives often have a strong involvement and influence in the executive compensation process.¹⁹⁶ Assuming that executives act opportunistically¹⁹⁷ within the bounds of their fiduciary duties, executives may not create socially optimal designs for contingent convertible bonds. Executives' opportunism and involvement in drafting the trigger could result in suboptimal early triggers in contingent convertible bonds issued to executives. If the trigger design allows executives to influence the early trigger, the suboptimal early trigger could increase the potential for abuse because executives may use the trigger to obtain cheap stock during a crisis. If executives are involved in drafting the features of contingent convertible bonds issued to investors, their opportunism could result in contingent convertible bond designs that do not result in a significant threat of equity dilution upon conversion and other governance-improving design features.¹⁹⁸ Because regulators and others are unlikely to provide rules,

195. See Bhagat & Romano, *supra* note 1, at 2–3 (discussing equity-based compensation).

196. Bebchuk & Fried, *supra* note 1; Bebchuk & Spamann, *supra* note 2.

197. See *supra* Part IV (showing that the incomplete contract theory model acknowledges agent opportunism in the analysis of executive compensation policies).

198. Kaal, *supra* note 14.

guidelines, and best practice guidance for contingent convertible bond designs and issuances anytime soon, executives may continue to have a strong involvement in the design of contingent convertible bonds.¹⁹⁹ Regulatory guidance on contingent capital designs and issuances may be needed to curtail the involvement of executives in the design of contingent convertible bonds and create socially optimal designs.²⁰⁰ Contingent convertible bonds with early triggers in executive compensation could help create socially optimal designs for contingent convertible bonds issued to investors.²⁰¹

VI. Implications for Academic Debates

Instituting contingent convertible bonds with early triggers in executive compensation packages adds a new perspective to the academic debate in the context of inside debt, the creditor-centered approach to executive compensation, and the design of triggering events.²⁰² As a result of their early conversion into equity (or the threat thereof), contingent convertible bonds provide several advantages beyond the benefits of traditional inside debt instruments in executive compensation.²⁰³ Contingent convertible bonds also add benefits to the creditor-centered approach to executive compensation.²⁰⁴ In the context of the creditor-centered approach, adding contingent convertible bonds or replacing other debt instruments in executive compensation

199. Institution- and industry-specific knowledge may make executives indispensable in drafting contingent convertible bonds. Regulatory guidelines and best practice guidance for contingent convertible bond designs could help ensure that executives are sufficiently involved but do not create socially suboptimal designs.

200. See Kaal, *supra* note 14, at 139–41 (noting that private ordering and market mechanisms may not result in socially optimal designs for contingent convertible bonds).

201. See *supra* Part V.B.2 (discussing the benefits of a design with early triggers).

202. See *supra* Part VI.A–C (discussing contingent capital as inside debt, improving the creditor-centered approach, and the impact of ownership characteristics on trigger design).

203. See *infra* Part VI.A (discussing contingent capital as inside debt).

204. See *infra* Part VI.B (discussing ways to improve the creditor-centered approach).

packages with contingent convertible bonds can optimize managers' risk incentives, especially in comparison with traditional debt instruments in executive compensation packages.²⁰⁵ In the context of the debate on trigger designs, contingent convertible bonds with early triggers show that the ownership characteristics of the contingent convertible bondholders can have an impact on the efficient design of contingent capital triggers.²⁰⁶

A. Contingent Capital as Inside Debt

Empirical studies have demonstrated that risk-taking declines if executives hold more debt relative to their equity holdings.²⁰⁷ Inside debt may be defined as a corporation's debt

205. See *infra* Part VI.B (discussing ways to improve the creditor-centered approach).

206. See *infra* Part VI.C (discussing the impact of ownership characteristics on trigger design).

207. See Calcagno & Renneboog, *supra* note 82, at 1808–09 (maintaining that the increase in the leverage of Anglo-American corporations has stimulated interest in the role of debt as a direct incentive device for managers to generate stronger corporate performance and showing that including risky debt in the capital structure changes a principal's "incentive to give incentives"); see also Edmans & Liu, *supra* note 82 (arguing that a debt bias can improve executives' efforts as well as deter risk-shifting); Tao-Hsien Dolly King & Min-Ming Wen, *Shareholder and Bondholder Governance, and Managerial Risk-Taking*, 35 J. BANKING & FIN. 512, 530 (2011) (showing that strong bondholder governance incentivizes low-risk investments); Ortiz-Molina, *supra* note 82, at 78–83, 90–91 (examining how CEO compensation is related to firms' capital structures and arguing that the hypothesis that debt reduces manager–shareholder conflicts can explain some—but not all—of the results); Sundaram & Yermack, *supra* note 8; Gerakos, *supra* note 8, at 23 (finding that pension benefits may reduce risk-taking); Tung & Wang, *supra* note 8 (showing that their empirical evidence provides a rationale for the use of inside debt compensation in structuring executive compensation in the banking context); Wei & Yermack, *supra* note 8. Other studies reject the idea that corporate governance and executive compensation are correlated. See Core et al., *supra* note 8, at 385–88; Dorff, *supra* note 169, at 5; Johnson et al., *supra* note 169, at 17, 38; Carter & Lynch, *supra* note 169, at 222 (finding no relationship between institutional ownership and the re-pricing decision); see also Anderson & Bizjak, *supra* note 169, at 1344; Wan, *supra* note 169, at 23 ("[There is] no systematic evidence that board composition affects change in CEO compensation."). Some scholars argue that there is no role for inside debt in executive compensation because bonuses, salaries, and managerial reputation constitute adequate remedies to debt's agency costs. See David Hirshleifer & Anjan V. Thakor, *Managerial*

held by firm insiders.²⁰⁸ Inside debt, which includes pensions and deferred compensation,²⁰⁹ is already a substantial part of executive compensation in the United States.²¹⁰ Unlike equity-based compensation, inside debt creates fixed claims for managers with a stake in the firm's liquidation value, which reduces risk-taking incentives for executives and the associated agency costs.²¹¹ When managers have a stake in the liquidation value of the firm, they are more likely to increase their efforts in the vicinity of insolvency.²¹² Inside debt could provide adequate signaling of managers' risk-taking.²¹³

Inside debt in the form of contingent convertible bonds has characteristics that could prove preferable to traditional inside debt.²¹⁴ Managers' inside debt stake in the firm's liquidation

Conservatism, Project Choice, and Debt, 5 REV. FIN. STUD. 437 (1992); James A. Brander & Michael Poitevin, *Managerial Compensation and the Agency Costs of Debt Finance*, 13 MANAGERIAL & DECISION ECON. 55 (1992); Teresa A. John & Kose John, *Top-Management Compensation and Capital Structure*, 48 J. FIN. 949, 969–71 (1993).

208. Cassell et al., *supra* note 8, at 588 (“CEO inside debt holdings (pension benefits and deferred compensation) are generally unsecured and unfunded liabilities of the firm.”); Edmans & Liu, *supra* note 82, at 75 (defining inside debt as debt—or any security with payoffs very similar to debt—held by the manager, and contrasting it with outside debt, which is held by external investors); Jensen & Meckling, *supra* note 30, at 352 (defining inside debt as “debt held by the manager”).

209. Edmans & Liu, *supra* note 82, at 76 (“U.S. CEOs hold substantial defined benefit pensions. These are unsecured, unfunded obligations which, in nearly all cases, have equal priority with other creditors in bankruptcy and thus constitute inside debt.”); Sundaram & Yermack, *supra* note 8, at 1 (“The most common form of these intracompany IOUs are benefit pensions and deferred compensation.”); Tung & Wang, *supra* note 8, at 13 (defining bank CEOs' inside debt as the present value of the CEO's pension and deferred compensation balances).

210. See Sundaram & Yermack, *supra* note 8.

211. Edmans & Liu, *supra* note 82 (showing that the probability of default and the manager's ability to affect liquidation values affect the appropriate amount of inside debt).

212. Tung & Wang, *supra* note 8, at 4.

213. Tung, *supra* note 9, at 35 (arguing that subordinated inside debt on the subsidiary level is preferable to debt of the holding company for signaling). *Contra* Bebchuk & Spamann, *supra* note 2, at 273–97 (proposing to pay executives through debt of the bank holding company).

214. See *supra* Part V.B.2 (elaborating on the benefits of an early trigger design).

value and the associated governance benefits²¹⁵ incentive optimization²¹⁶ and reduction of agency costs²¹⁷ depend on the solvency of the respective entity. Inside debt without a conversion feature provides no mechanism to ensure the solvency of the entity. Contingent convertible bonds with a conversion feature offer the additional benefit of creating an early warning system and a buffer before insolvency that can help an entity avoid default.²¹⁸ As a debt instrument with an early trigger before conversion, contingent convertible bonds in executive compensation have all the benefits of inside debt²¹⁹ in addition to the benefits of an early trigger design.²²⁰

Because the contingent convertible bonds in executive compensation packages would convert into equity early before insolvency, the value of the equity after conversion of the respective executives' contingent convertible bonds before bankruptcy could still be higher than the liquidation value of

215. Cassell et al., *supra* note 8, at 589 (“[O]ther studies find that inside debt holdings are associated with higher firm liquidation value . . . and lower credit default swap spreads . . .”); Edmans & Liu, *supra* note 82, at 79; Sundaram & Yermack, *supra* note 8, at 1558; Tung, *supra* note 9, at 26.

216. Tung, *supra* note 9, at 3 (arguing that market pricing of inside debt is particularly sensitive to downside risk and that including inside debt in bankers' compensation packages could therefore give managers “direct personal incentives to avoid excessive risk”).

217. *Id.*; see also Jensen & Meckling, *supra* note 30; Sundaram & Yermack, *supra* note 8, at 1572 (“[D]ebt-based compensation reduces the agency costs of debt . . . we should observe a positive association between the CEO's debt-to-equity ratio and the firm's leverage.”); Edmans & Liu, *supra* note 82, at 79 (demonstrating that inside debt is a superior remedy to the agency costs of debt than the bonuses advocated by prior research).

218. See Kaal & Henkel, *supra* note 14 (discussing the use of contingent capital to create a buffer in the vicinity of bankruptcy).

219. See Edmans & Liu, *supra* note 82, at 92 (“Inside debt can be a more effective solution to creditor expropriation than salaries, bonuses, reputation and private benefits, owing to its sensitivity to liquidation value.”); Sundaram & Yermack, *supra* note 8, at 1558, 1583 (“Inside equity aligns managers with equity holders in good states, but inside debt aligns managers with debt-holders in bad states . . . Debt-based compensation provides managers with interesting incentives to reduce the agency costs of debt.”); Tung & Wang, *supra* note 8, at 26 (“CEOs' inside debt holdings preceding the Crisis are significantly positively associated with bank performance and significantly negatively associated with bank risk taking during the Crisis.”).

220. See *supra* Part V.B.2 (explaining the benefits of the early trigger design).

traditional inside debt.²²¹ Unlike the liquidation value of traditional inside debt, the equity in executives' portfolios after the conversion of the contingent convertible bonds can still be increased because the early trigger creates a substantial buffer before insolvency.²²² Contingent convertible bonds as inside debt would not only have the benefits of inside debt before conversion, but would also provide significant incentives for management to maintain the value of equity after conversion.²²³

Contingent convertible bonds in executive compensation could also help optimize inside debt instruments to incentivize lower risk-taking by managers. Similar to other inside debt instruments, the market price of contingent convertible bonds would likely be affected by managers' risk-taking.²²⁴ Like subordinated inside debt on the subsidiary level,²²⁵ before conversion into equity, contingent convertible bonds can incentivize executives to lower their risk-taking because contingent convertible bond prices are sensitive to downside risks of SIFIs, including the risk of default.²²⁶ Contingent convertible

221. See Kaal & Henkel, *supra* note 14, at 233–34

A common denominator in the proposals on the use of contingent capital in the context of avoiding future crises could be the issuance of a . . . percentage of a financial institution's long-term debt capital as convertible debt securities that convert into equity when triggered by financial weakening of the . . . institution. However, debt–equity conversion is not a new concept. The financial crisis has drawn increasing attention to this concept because the conversion of debt into equity could be an attractive alternative to forcing strained, but not insolvent, financial institutions into restructuring or liquidation.

222. See Kaal, *supra* note 14, at 293 (“Strained financial institutions may find the automatic conversion of debt into equity an attractive alternative to being forced into restructuring or liquidation.”).

223. See *supra* notes 211–12 and accompanying text (explaining how the conversion of contingent capital bonds creates incentives for managers).

224. See Tung & Wang, *supra* note 8, at 3 (discussing the pricing sensitivity of inside bank debt on the subsidiary level with regard to executive risk-taking). *Contra* Bebchuk & Spamann, *supra* note 1, at 269–74 (suggesting that managers' risk-taking probably does not affect inside debt in the form of debt of the bank holding company to a great extent).

225. See Tung & Wang, *supra* note 8, at 35 (providing tables on subordinated inside debt at the subsidiary level).

226. See Murphy, Walsh & Willison, *supra* note 140, at 6 (arguing that the pricing of contingent convertible bonds could be a guide to the markets' view on

bonds, however, provide an additional feature. Upon the conversion of the contingent convertible bonds,²²⁷ the downside pressure on equity places additional weight on the value of the equity portion of executives' pay packages.²²⁸ Upon conversion, the executives would not only forego the contingent convertible bonds in their compensation packages, but they would also hold converted equity and equity held prior to the conversion at a depressed value. The price-sensitivity-induced incentives for lowering risk before conversion and the new emphasis on the equity portion of the pay package after conversion create a combined effect on executives' incentives. This combined effect could create comparatively stronger incentives for executives to take fewer risks in order to avoid the triggering event.²²⁹ The emphasis in this design is on incentives that lower executives' risk-taking and help avoid the early trigger.²³⁰

Critics argue that liquidity shocks and other exogenous factors could influence debt trading prices unrelated to managers'

the riskiness of financial institutions).

227. The conversion of contingent convertible bonds signals to the market that the entity could be insolvent which might result in downside pressure on the stock price. See Sundaresan & Wang, *supra* note 146, at 6 (“[C]ontingent capital is essentially a junior debt that converts to equity shares when the stock price reaches a certain low threshold.”).

228. See Murphy, Walsh & Willison, *supra* note 140, at 6 (“But it seems unlikely that precautionary contingent capital could be less costly than equity [I]f the private information is primarily about the downside risk faced by a bank, the values of equity and precautionary contingent capital could be similarly affected by this private information.”).

229. See *id.* at 8 (“The presence of precautionary contingent capital could also risk creating systemic problems in other ways if bank equity holders or managers seek to avoid the trigger event [M]anagers could have an incentive to do this if they fear that conversion could lead to their replacement.”). Managing to avoid the triggering event alone may be possible by ignoring the other interests of various constituents. See *id.* (“If the trigger metric depends on a bank’s ratio of capital-to-assets or risk-weighted assets, incumbent equity holders or managers could try to reduce assets to push the ratio up and away from the trigger value.”).

230. Executives are unlikely to increase their risk-taking after conversion of their CCBs to salvage the equity value of their portfolio because of the public nature of the trigger, the entity’s vicinity to bankruptcy, and managers’ inability to obtain other forms of financing if they increase the risk profile of the entity. See *supra* Part V.C (suggesting a mandatory holding period upon the conversion of executives’ contingent convertible bonds for all equity in the entity the executives manage).

risk-taking, making debt at the subsidiary level less useful for signaling.²³¹ Contingent convertible bonds should be less prone to liquidity shocks because of their inordinately high coupon rate of between 7% and 9.5%.²³² Although there is no assurance that oversubscribed issuances²³³ guarantee future liquidity, the coupon rates of contingent convertible bonds could help hedge the liquidity risk.²³⁴

Critics also allege that the inside debt theory of executive compensation ignores suboptimal short- and long-term incentives that may result from the inclusion of long-term debt in the

231. See Sepe, *supra* note 1, at 211 (arguing that the creditor-centered approach is flawed for three reasons: (1) banks' debt obligations include, in large part, private debt; (2) bank-issued bonds trade at a markedly lower volume than bank equity; and (3) bank liabilities not included on balance sheets exist but their existence is difficult to demonstrate).

232. See Press Release, Credit Suisse, Credit Suisse Grp. Executes Agreement to Put in Place CHF 6 Billion of Tier 1 Buffer Capital Notes (Feb. 14, 2011), available at <https://emagazine.credit-suisse.com/app/article/index.cfm?fuseaction=OpenArticle&aoid=300208&coid=293554&lang=EN>; Press Release, Credit Suisse, Credit Suisse Group Places 7.875% Tier 2 Buffer Capital Notes (Feb. 17, 2011), available at <https://publications.credit-suisse.com/app/article/index.cfm?fuseaction%20=OpenArticle&aoid=300504&coid=293551&lang=EN> ("The Tier 2 BCNs were offered on a 'Regulation S-only' basis outside the US and other restricted jurisdictions in a minimum denomination of USD 100,000. The USD 2 billion Tier 2 BCNs will initially carry a coupon rate of 7.875% per annum."). Regarding the Barclays issuance and coupon rate, see *supra* notes 134–35; see also Paul Clarke, *BarCap's 7% Coco Coupon Is Decidedly More Generous Than Most Deferred Bonuses*, REUTERS, (Apr. 20, 2011), available at http://news.reuters.efinancialcareers.co.uk/News_ITEM/newsItemId-32101 ("The coupon rate of 7% is not just too generous for shareholders, it also outstrips the rate of interest being paid on most other deferred cash bonuses."); Treanor, *supra* note 135, at 50 ("The Barclays cocos would pay a 7% coupon—or rate of interest—annually, not compounded.").

233. See Katharina Bart, *Credit Suisse Sells \$2 Billion of Co-Cos to Public*, WALL ST. J. (Feb. 17, 2011, 6:44 PM), <http://online.wsj.com/article/SB10001424052748704546704576150861690164484.html> ("A person familiar with the situation said the issue was oversubscribed.") (on file with the Washington and Lee Law Review); Mary Watkins, *Credit Suisse to Use 'Cocos' to Raise \$250M*, FT.COM, (Mar. 7, 2012, 6:25 PM), <http://www.ft.com/intl/cms/s/0/e77c968c-686e-11e1-b803-00144feabdc0.html#axzz1xgvtwSc2> ("The bank last year raised \$2bn using cocos in a heavily oversubscribed issue.") (on file with the Washington and Lee Law Review); Murphy, Walsh & Willison, *supra* note 140, at 9 (stating that the CS issue was around eleven times oversubscribed); see also Kaal, *supra* note 14, at 312–15.

234. See Murphy, Walsh & Willison, *supra* note 140, at 15 (explaining the effects of varying coupon rates).

compensation packages of executives.²³⁵ They argue that long-term debt securities in the compensation packages of executives will not disincentivize high-risk, short-term transactions because managers can expect short-term gains that exceed the discounted value of their long-term debt securities.²³⁶ Adding contingent convertible bonds with early triggers as part of the inside debt portion of executives' compensation packages could change managers' incentives. Executives would no longer simply focus on the debt versus equity portion of their portfolio; they would also consider the effects of triggering events.²³⁷ In the day-to-day operation of the business, managers would need to consider the triggering event of a substantial portion of their outstanding debt instruments and the implications that a triggering event would have on the entity and their personal finances.²³⁸ Managing to avoid the early trigger would allow for enough risk-taking by managers to generate sufficient returns but, at the same time, would curtail risk-taking enough to avoid the negative effects of the triggering event.²³⁹

235. See Sepe, *supra* note 1, at 223 ("Accordingly, the theory overlooks the perverse incentives long-term debt may produce both in the short- and long-run.").

236. See *id.* ("Tying managers' financial rewards to debt securities with a long-term maturity will not induce managers to refrain from taking risky bets in the short run, because the expected short-term gains from these bets will tend to exceed the discounted value of managers' debt holdings."). With equity-based compensation in managers' compensation packages, managers may still be incentivized to drive up the stock price and exercise stock options at an opportune time. However, risk-taking generated by equity-based pay can be overcome if the calibration of debt- and equity-based compensation in the executive compensation package favors debt and requires a minimal holding period. See Bhagat & Romano, *supra* note 1, at 361–62 (discussing the equity-based part of the compensation package).

237. See *supra* Part V.B (discussing the effects of triggering events and management incentives). Triggering events in contingent capital securities can take various forms. The debate on what triggers should be used is ongoing. See Kaal, *supra* note 14, at 300 ("While institution-specific triggers would presumably grant most certainty to market participants, regulatory trigger designs could provide lower levels of certainty."); Kaal & Henkel, *supra* note 14, at 233–38 (examining the different trigger designs and their effects on risk-taking).

238. See *supra* note 169 and accompanying text (noting studies that explore how managers behave depending on the ratio of their debt to their equity).

239. These are ideal typical model assumptions. However, with the right trigger design, executives' incentives and interests could be substantially

B. Improving the Creditor-Centered Approach

Contingent convertible bonds with early triggers in executive compensation can help to improve the creditor-centered approach to executive compensation. Existing compensation practices have an effect on managers' risk-taking and risk preferences as well as the firm's long-term profitability and sustainability.²⁴⁰ Including

improved. See, e.g., McDonald, *supra* note 95, at 3 (“The fact that the dual-trigger structure permits banks to sometimes fail addresses the concern that contingent capital would blunt the incentive effects of debt.”).

240. See Bebchuk & Fried, *supra* note 1, at 671 (“Unlike defined contribution plans, which force the employee to bear the risk of poor investment performance, defined benefit plans shift the risk of investment performance to the firm.”); Carl R. Chen, Thomas L. Steiner & Ann Marie Whyte, *Does Stock Option-Based Executive Compensation Induce Risk-Taking? An Analysis of the Banking Industry*, 30 J. BANKING & FIN. 915, 916 (2006) (“The compensation level and structure employed by each bank has implications for risk-taking and for the agency relation between managers and stockholders.”); Jeffrey L. Coles, Naveen D. Daniel & Lalitha Naveen, *Managerial Incentives and Risk-Taking*, 79 J. FIN. ECON. 431, 442–43 (2006) (providing empirical evidence of a strong causal relation between managerial compensation and investment policy, debt policy, and firm risk); Robert Haugen & Lemma Senbet, *Resolving the Agency Problems of External Capital Through Options*, 36 J. FIN. 629, 640 (1981) (“[T]here may remain an incentive for the manager to engage in either high or low risk investment programs. This is the well-known wealth transfer problem associated with the existence of risky debt in the capital structure.”); Jensen & Meckling, *supra* note 30, at 309–10 (“[Existing] literature focuses almost exclusively on the normative aspects of the agency relationship; that is, how to structure the contractual relation (including compensation incentives) between the principal and agent to provide appropriate incentives for the agent to make choices which will maximize the principal's welfare”); Kose John, Anthony Saunders & Lemma W. Senbet, *Perspectives on Bank Capital Regulation and Managerial Compensation*, 19 J. BANKING & FIN. 735 (1995); Clifford W. Smith & Rene M. Stulz, *The Determinants of Firms' Hedging Policies*, 20 J. FIN. & QUANTITATIVE ANALYSIS 391, 399 (1985) (suggesting that shareholders can affect management's risk aversion through the design of compensation contracts); Bolton, Mehran, & Shapiro, *supra* note 19, at 1 (“[S]tructuring CEO incentives to maximize shareholder value in a levered firm tends to encourage excess risk taking.”); COUNCIL OF INSTITUTIONAL INVESTORS, TOP 10 RED FLAGS TO WATCH FOR WHEN CASTING AN ADVISORY VOTE ON EXECUTIVE PAY 1 (2010), available at <http://www.cii.org/UserFiles/file/resource%20center/publications/March%202010%20-%20Say%20on%20Pay%20Checklist.pdf> (“Poorly-designed incentives can promote excessive risk-taking and get-rich quick mentalities—key contributors to the financial crisis.”). Several empirical studies have explored the connection between managerial stock, option holdings, or both, and financial strategy or corporate focus (such as leverage, repurchase, or the extent of derivatives usage and hedging). See generally Anup Agrawal & Gershon Mandelker, *Managerial Incentives and Corporate Investment and Financing Decisions*, 42 J. FIN. 823

in executive compensation packages a basket of securities that represents a predefined percentage of the common shares could help address the shortcomings of existing executive compensation practices.²⁴¹

Adding contingent convertible bonds to the basket of securities in executive compensation could further improve executive compensation practices. Like other debt securities in executive compensation, contingent convertible bonds may increase sustainability and can help overcome income inequality.²⁴² If a SIFI issues contingent convertible bonds to

(1987); Philip G. Berger, Eli Ofek & David L. Yermack, *Managerial Entrenchment and Capital Structure Decisions*, 52 J. FIN. 1411 (1997); Richard A. DeFusco, Robert R. Johnson & Thomas S. Zorn, *The Effect of Executive Stock Option Plans on Stockholders and Bondholders*, 45 J. FIN. 617 (1990); David J. Denis, Diane K. Denis & Atulya Sarin, *Agency Problems, Equity Ownership, and Corporate Diversification*, 52 J. FIN. 135 (1997); Wayne R. Guay, *The Sensitivity of CEO Wealth to Equity Risk: An Analysis of the Magnitude and Determinants*, 53 J. FIN. ECON. 43 (1999); Hamid Mehran, *Executive Compensation Structure, Ownership, and Firm Performance*, 38 J. FIN. ECON. 163 (1995); Hamid Mehran, *Executive Incentive Plans, Corporate Control, and Capital Structure*, 27 J. FIN. & QUANTITATIVE ANALYSIS 539 (1992); Daniel A. Rogers, *Does Executive Portfolio Structure Affect Risk Management? CEO Risk-Taking Incentives and Corporate Derivatives Usage*, 26 J. BANKING & FIN. 271 (2002); Catherine Schrand & Haluk Unal, *Hedging and Coordinating Risk Management: Evidence from Thrift Conversions*, 53 J. FIN. 979 (1998); Peter Tufano, *Who Manages Risk? An Empirical Examination of Risk Management Practices in the Gold Mining Industry*, 51 J. FIN. 1097 (1996); Christine Jolls, *Stock Repurchases and Incentive Compensation* (Nat'l Bureau of Econ. Research, Working Paper No. w6467, 1998), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=226212.

241. See Bebchuk & Spamann, *supra* note 1, at 253, 283–84 (discussing how executive compensation packages are one of several corporate governance measures that address excessive risk-taking and how regulating such incentives should be standard procedure in the future). Weighting debt securities, including contingent convertible bonds, heavily in the calibration of executive compensation packages may increase the positive effects of debt in executive compensation packages. See *supra* note 237 and accompanying text (expounding on the positive effects). At the same time, debt may not be the preferred form of compensation for executives. Calibrating executive compensation packages to account for desired incentives and governance improvements while giving sufficient incentives for executives to perform within expected parameters may require an institution-specific relational approach and learning from experience. See *supra* Part IV (discussing the benefits of the incomplete contract theory of NIE).

242. See *Empowering Shareholders on Executive Compensation: H.R. 1257, the Shareholder Vote on Executive Compensation Act: Hearing Before the H. Comm. on Fin. Servs.*, 110th Cong. 129 (2007) (testimony of Steven N. Kaplan,

replace a substantial portion of its executives' equity-based compensation, the coupon rate of contingent convertible bonds (between 7% and 9.5%),²⁴³ albeit higher than traditional debt instruments, could help address concerns over income inequality.²⁴⁴ For the remaining portion of executives' equity-based compensation, a mandatory holding period upon the conversion of the contingent convertible bonds could provide incentives for sustainability.²⁴⁵ The coupon rate of contingent convertible bonds may be incomparable with the upside potential of equity-based compensation, especially for stock options. The coupon rate of contingent convertible bonds, however, is higher than the coupon rate of traditional debt instruments.²⁴⁶ This

Neubauer Family Professor of Entrepreneurship & Fin., Univ. of Chi., Graduate Sch. of Bus.) (“[T]he increase in CEO pay is a factor in the increase in income inequality at the very top end of the income distribution. It is not, however, the driver of that inequality.”); McDonnell, *supra* note 189, at 1 (elaborating on general inequality as a concern); Thomas Piketty & Emmanuel Saez, *Income Inequality in the United States, 1913–1998*, 118 Q.J. ECON. 1, 32 (2003) (“Part of the recent increase in top wages is due to the development of stock options that are reported as wages and salaries on tax returns when they are exercised.”); Michael C. Jensen, Kevin J. Murphy & Eric G. Wruck, *Remuneration: Where We’ve Been, How We Got to Here, What Are the Problems, and How to Fix Them* 24 (Eur. Corporate Gov’t Inst., Fin. Working Paper No. 44/2004, 2004), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=561305 (“The pay for chief executive officers (CEOs) in large US firms increased dramatically over the past three decades, driven by an explosion in grants of share options.”); Steven N. Kaplan & Joshua D. Rauh, *Wall Street and Main Street: What Contributes to the Rise in the Highest Incomes?* 1 (Nat’l Bureau of Econ. Research, Working Paper No. 13270, 2007), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=931280

Inequality today at the top end of the income distribution can be attributed to four different sectors of the economy—top executives of non-financial firms (Main Street); financial service sector employees from investment banks, hedge funds, private equity funds, and mutual funds (Wall Street); lawyers; and professional athletes and celebrities.

243. See *supra* note 232 and accompanying text (describing Credit Suisse issuance statistics).

244. See *supra* Part V (discussing how the governance-improving features of contingent capital bonds can be applied to executive compensation); *supra* note 188 and accompanying text (explaining that contingent convertible bonds can lower income inequality and increase sustainability).

245. See Bhagat & Romano, *supra* note 1, at 361 (suggesting a two- to four-year holding period for equity-based compensation).

246. See Markus Pelger, *Contingent Convertible Bonds: Pricing, Dilution Costs and Effective Regulation* 7–11 (Coleman Fung Risk Mgmt. Research Ctr.,

higher coupon rate could make it a more attractive instrument in executive compensation.²⁴⁷ The attractive features of CCBs may help establish CCBs in the executive compensation culture in the United States and thereby improve corporate governance.

Because of the conversion feature, contingent convertible bonds may have additional benefits. Unlike traditional debt instruments in executive compensation, contingent convertible bonds provide incentives for increased monitoring by creditors and shareholders. They also align executives' interests with the interests of shareholders and creditors.²⁴⁸ Most importantly, adding contingent convertible bonds or replacing other debt instruments in executive compensation packages with contingent convertible bonds with early triggers helps improve managers' risk incentives.²⁴⁹ The conversion feature of contingent convertible bonds decreases executives' risk-taking incentives because holding a substantial portion of debt rather than equity disincentivizes short-termism and executives' focus on quarterly stock price performance. The early conversion feature also creates a risk that if executives do not lower their risk-taking and manage the entity well enough to avoid the trigger, they will receive equity at a point in time when the equity value will be substantially diminished.²⁵⁰

Working Paper No. 2012-02, 2012), <http://fungcenter.berkeley.edu/resources/documents/Pelger201202.pdf> (providing formulae for calculating coupon rates of both contingent convertible bonds and traditional debt instruments).

247. See Murphy, Walsh & Willison, *supra* note 140, at 7 ("The opportunity to run before conversion could also reduce the incentives of precautionary contingent capital holders to monitor a bank's risk-taking and impose market discipline.").

248. See *supra* Part V (discussing how, because shareholders' interests are aligned with the entity's, executives' interests are also aligned with the shareholders' interests).

249. See *supra* note 230 and accompanying text (examining the effect of contingent convertible bonds on managers' risk-taking).

250. The amount to be received upon conversion would depend on the trigger design. Most triggers currently discussed in the literature favor a conversion shortly before bankruptcy. If this is the case, the equity received by executives would be nearly worthless. If the SIFI chooses a contingent capital bond design with a write-down feature for its executive compensation packages, managers would perhaps have even less incentive to take risks because they would not get any financial benefit from the contingent capital bonds if they are triggered into a write-down. The beneficial effects could increase in proportion to the volume of contingent convertible bonds issued to executives.

Replacing a substantial portion of equity-based compensation with contingent convertible bonds can also help create incentives for managers to keep the business solvent. During the Financial Crisis, Lehman Brothers experienced a severe shortfall in solvency in part because its CEO Richard S. Fuld, Jr. had a substantial equity stake in the company and, in an effort to preserve his own interests, refused to pursue a dilutive capital infusion or sell the firm in order to avoid the firm's failure (the Fuld Problem).²⁵¹ Motivated in part by a desire to address the Fuld Problem, Jeffrey Gordon suggests using convertible, equity-based pay to compensate executives.²⁵² For example, executives in financial firms would receive a substantial part of their stock-related compensation in equity securities that convert to subordinated debt upon a triggering event.²⁵³ Gordon contrasts convertible equity-based pay with contingent convertible bonds and argues that contingent convertible bonds would not address the Fuld Problem.²⁵⁴

If a financial institution issues contingent convertible bonds to the general public and its executives, and a large part of equity-based executive compensation is replaced with CCBs,²⁵⁵ SIFI managers may be more concerned with managing the entity to prevent the early triggering event²⁵⁶ than with averting an

251. See *Executive Compensation*, *supra* note 19, at 7 (“This might be called ‘the Fuld Problem’: a CEO who is reluctant to negotiate a large equity raise (or sell the firm) because the terms would massively dilute his personal equity stake and who instead may calculate that holding out [will be more beneficial to him or her].”).

252. See *id.* at 11 (“[S]enior executives at financial firms should receive a significant portion of stock-related compensation in the form of equity that will convert into subordinated debt upon certain external triggering events . . .”).

253. *Id.*

254. See *id.* at 11 n.18 (“Convertible equity-based pay bears a family resemblance to ‘contingent convertible bonds’ Among other features, ‘co-cos’ promote shareholder monitoring of managerial risk-taking by providing a credible threat of dilution in the event of financial distress . . .”).

255. See Kaal, *supra* note 14, at 321 (discussing how Credit Suisse and other SIFIs have already issued contingent convertible bonds to the public); see also *supra* note 134 and accompanying text (noting that Barclays has already issued contingent convertible bonds to its executives).

256. See *supra* Part V.C (explaining how SIFI executives might be led to manipulate triggering events if they are compensated with contingent convertible bonds).

equity infusion to avoid dilution of their own equity stake. If executives' compensation packages do not include a large equity portion, managers have no incentive to avoid an equity infusion to preserve the value of their own equity.²⁵⁷ Even if a substantial portion of executives' compensation remains equity-based, the early conversion of contingent convertible bonds affects not only the debt portion of executives' compensation but also the value of the equity portion after the contingent convertible bonds portion is converted.²⁵⁸ The lower value of the equity portion after the conversion of the contingent convertible bonds, in combination with the negative impact of the CCBS conversion on the existing equity of the respective entity, makes it less likely that executives will fear the effect of raising additional equity, such as a negative impact on price and the dilutive effect.²⁵⁹

Because contingent convertible bonds are addressed to the entire equity base and would, according to some proposals, become a (mandatory) feature of SIFIs' balance sheets, the dilution and the effect on managers could be greater with convertible equity-based pay.²⁶⁰ However, the effect of the

257. See Bebchuk & Spamann, *supra* note 1, at 272 (“[T]he holder of [an out-of-the-money] option will be indifferent between a stable stock price and further losses of any magnitude. On the upside, only very large stock price gains will yield a positive payoff for the option holder.”).

258. See *supra* Part V.B (examining the consequences of an early conversion of contingent convertible bonds and the effects of such conversion on executives' risk-taking). Opportunism may lead managers to increase the risk profile of the entity after conversion, enabling them to regain the lost equity value in their portfolio. On the other hand, an increase in the risk profile would affect the ability of the entity to obtain other forms of financing such as bridge loans. The increase in the risk profile after conversion is also unlikely because the early conversion would probably increase CCBs investors' and shareholders' monitoring of the entity. See *Executive Compensation*, *supra* note 19, at 11 n.18 (“Among other features, ‘co-cos’ promote shareholder monitoring of managerial risk-taking by providing a credible threat of dilution in the event of financial distress, because of the automatic conversion of a significant amount of debt into equity.”).

259. See *id.* at 11 (“The equity will convert into subordinated debt based on the value of the converted equity as of a period prior to the conversion moment This mechanism both imposes losses on senior management for deterioration in the firm's financial condition while giving it a significant stake in avoiding further deterioration.”).

260. See *id.* at 11 n.18 (“Assuming that anti-dilution protection is scrubbed out of managerial compensation contracts, the dilution threat from co-co's should also directly affect management behavior.”).

conversion from equity to debt will largely depend on the trigger design. There is currently no consensus on the ideal trigger design for convertible securities.²⁶¹ Depending on the trigger design, a mandatory conversion of senior managers' equity into subordinated debt on a valuation basis may not lead to a significant loss if the trigger from equity to subordinated debt comes after a likely significant loss in the share price of the entity.²⁶² Although mandatory contingent convertible bond issuances with predefined triggering events could have better corporate governance outcomes,²⁶³ it is noteworthy that the contingent convertible bond market has evolved without mandatory issuances.²⁶⁴ Also, the Fuld Problem²⁶⁵ is only one of many corporate governance concerns pertaining to SIFIs.²⁶⁶ The approach in this Article is broader.²⁶⁷ The issuance of contingent convertible bonds to the public has great potential to improve several aspects of corporate governance in SIFIs.²⁶⁸ Contingent

261. See Kaal, *supra* note 14, at 300–01 (describing how different trigger designs pose different problems); see also Henkel & Kaal, *supra* note 149, at 251–57 (showing the uncertainty and risk involved in the different trigger designs).

262. See *Executive Compensation*, *supra* note 19, at 16 (“[A] mandatory conversion of senior managers’ equity into subordinated debt on valuation basis . . . [can] impose[] an immediate loss but . . . also [may] preserve[] incentives to prevent further deterioration of the firm.”).

263. See Kaal, *supra* note 14, at 317 (“The experimentation with different CCS rules and a mixture of market solutions, private ordering, and mandatory rules in different jurisdictions could help avoid a ‘stable rule’ and permit dynamic regulation.”).

264. See *id.* at 308–12 (discussing the evolving market in contingent capital).

265. See *supra* note 251 and accompanying text (defining “the Fuld Problem”).

266. Another similar problem is that “the incentives originating from corporate governance controls may not work in SIFIs.” Kaal & Henkel, *supra* note 14, at 242.

267. The common denominator between Gordon’s proposal and the proposal in this Article is the avoidance of SIFI resolution and distress in the financial sector. Compare *Executive Compensation*, *supra* note 19, at 2 (focusing instead on the ever-widening gap between executives’ interests and those of nonmanagerial shareholders), with *supra* notes 240–44 and accompanying text (examining contingent corporate bonds’ effect on risk-taking and income inequality).

268. See Kaal, *supra* note 14, at 321–22 (“While commercial motives are certain to have played a major role in the CCS issuance by Credit Suisse and

convertible bonds in executive compensation can solidify, and in some cases, intensify the positive effects on corporate governance.²⁶⁹

C. The Impact of Ownership Characteristics on Trigger Design

The literature on trigger designs of contingent capital focuses on the efficient calibration of triggering events.²⁷⁰ The efficient calibration of triggering events is central to the design of contingent capital because the trigger affects if and when the conversion of contingent convertible bonds takes place.²⁷¹ The efficient conversion of contingent convertible bonds into equity has substantial implications for the effectiveness of contingent convertible bonds and their ability to make financial institutions safer.²⁷²

The literature on contingent capital trigger designs is largely silent regarding the effect of trigger designs on corporate governance.²⁷³ Contingent convertible bonds issued to

Barclays, the use of contingent capital to avoid public sector support and to compensate executives could be a first step towards corporate governance reform from within, with potentially larger implications.”).

269. See *supra* Part V.B (explaining how contingent convertible bonds that specifically include an early trigger design may optimize the effects on corporate governance).

270. See Henkel & Kaal, *supra* note 149, at 251–52 (“The efficient calibration of triggering events is central to the design of contingent capital. . . . Scholars discuss various trigger events that may be categorized as follows: (1) transactional triggers, (2) automatic triggers, (3) statutory triggers, and (4) regulatory triggers.”); Kaal, *supra* note 14, at 298–99 (“The optimal design of CCS has been the subject of a long academic debate. Unresolved questions include design features of CCS and the calibration of design features, the mandatory or voluntary nature of contingent capital, the objectives of CCS, market evolution, and the volume of CCS issuance, among others.”).

271. See Henkel & Kaal, *supra* note 149, at 251 (“The efficient calibration of triggering events is central to the design of contingent capital. The optimal design for a trigger event that converts debt into equity is unclear.”).

272. See Kaal & Henkel, *supra* note 14, at 224–25 (“Contingent capital is the predefined conversion of financial institutions’ debt securities upon a triggering event into equity securities. Pending contingent capital proposals are expected to make financial institutions more resilient and avoid a future financial crisis.”).

273. See Kaal, *supra* note 14, at 300–01 (discussing the potential benefits and drawbacks of trigger designs, but not addressing trigger designs’ effect on

executives²⁷⁴ place a new emphasis on the impact of ownership characteristics on trigger designs. Trigger designs that may work well in financial institutions with the traditional mix of debt-holders and shareholders may be suboptimal if executives also hold debt instruments in the form of contingent convertible bonds.²⁷⁵ The nature of ownership of contingent convertible bonds may create different demands on the design features. Who owns the contingent convertible bonds can impact the efficiency, effectiveness, and corporate governance results of trigger designs.²⁷⁶ Recognizing that ownership characteristics can have an impact on the efficient design of contingent capital triggers can help adjust designs and avoid suboptimal outcomes.²⁷⁷

VII. Conclusion

Contingent convertible bonds in executive compensation are not a mere theoretical concept. European SIFIs have started to add contingent convertible bonds to executive compensation packages.²⁷⁸ Path dependencies could make it difficult to adopt governance-improving elements in executive compensation policies in the United States.²⁷⁹ Contingent convertible bonds display many commercially attractive features that could help establish these hybrid securities in the compensation packages of executives in the United States. Like other debt securities in executive compensation, contingent convertible bonds can lower income inequality and incentivize the long-term and sustainable

corporate governance).

274. See *supra* note 134 and Part V.A (reviewing Barclays's issuance of contingent convertible bonds to executives).

275. Kaal & Henkel, *supra* note 14, at 301.

276. See Henkel & Kaal, *supra* note 149, at 252 ("Constituents favor trigger designs in accordance with their own utility preferences.").

277. Adjusting the design of CCBs to take ownership characteristics into account could complicate this analysis, which already deals with a substantial number of parameters. However, the design of CCBs should not be compromised in order to avoid complexity.

278. See *supra* note 17 and accompanying text (discussing Barclays's use of contingent convertible bonds in executive compensation).

279. See *supra* note 191 and accompanying text (identifying path dependence as an obstacle to the adoption of contingent convertible bonds in the United States).

development of SIFIs.²⁸⁰ Additionally, an early trigger design for contingent convertible bonds in executive compensation can help further improve governance shortcomings in SIFIs.²⁸¹ Contingent convertible bonds with an early trigger design enable earlier signaling of default risk; they provide increased incentives for monitoring by creditors and shareholders as well as incentives for executives to lower their risk-taking.²⁸²

280. *See supra* note 189 and accompanying text (explaining that if contingent convertible bonds replace equity-based executive compensation, contingent convertible bonds may lower income inequality).

281. *See supra* notes 221–23 and accompanying text (expanding on the benefits of an early trigger design).

282. *See supra* note 247 and accompanying text (discussing how early trigger designs can incentivize creditors and shareholders to monitor executives' risk-taking).