Using the Law to Reduce Systemic Risk

Bernard S. Sharfman*

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*Mr. Sharfman is a graduate of the Georgetown University Law Center (2000) and an adjunct professor of business law at the George Washington University School of Business. The opinions expressed in this Article are solely the author’s and are not to be taken as representative of the opinions of any former, current, or future employer. This Article is dedicated to Mr. Sharfman’s wife, Susan Thea David, and his daughter, Amy David Sharfman. Without their love and encouragement this Article would never have been completed. Mr. Sharfman would like to thank Edward J. Kane, Edward Waizter, P.M. Vasudev, Anne Batter, and Brad Hintz for reviewing early versions of this Article; Michael D. Klausner for reviewing and providing comments on a presentation of this Article that was created for the Midwestern Law and Economics Association (MLEA) annual meeting (October 2010); and Professors Nadelle Grossman, Brett McDonnell, Claire Hill, Scott Moss, Karl Okamoto, and J.W. Verret for providing comments at the MLEA meeting.
The recent financial crisis has put into focus how financial innovation can lead to the implementation of financial sector business models that are potentially unsustainable. While these business models are not necessarily bad if there is no viable alternative, policy makers and regulators need to make sure the financial sector is not overinvesting in such models as they may create unnecessary nodes of systemic risk.

To minimize overinvestment, policy makers and regulators must focus on and regulate practices that encourage financial sector participants to be indifferent to the use of unsustainable business models. One possible practice originates from the large, front-loaded bonus arrangements provided to Wall Street employees (traders, investment bankers, and asset managers). These arrangements provide incentives for employees to focus on maximizing their personal short-term returns at the expense of their employers’ and society’s long-term interests.

For a solution to the problems created by these compensation arrangements, this Article recommends limiting the tax deductibility of financial sector compensation at the entity level, a new tax similar to Internal Revenue Code section 162(m), but with a much greater reach as it would apply to all Wall Street employees who work for financial sector firms. This new law would be supplemented by a provision that would restrict payouts of current and deferred bonuses at those times when a firm’s performance measures indicate excessive firm-specific risk.

I. INTRODUCTION

The recently enacted Dodd–Frank Wall Street Reform and Consumer Protection Act (the Dodd–Frank Act or Act)\(^1\) will have a major impact on how the financial sector operates. For example, it proposes to change dramatically the way derivatives\(^2\) are regulated, cleared, and traded by requiring that the majority of trading and clearing of derivatives be moved from the opaqueness of over-the-counter markets into the light of regulated clearinghouses and exchanges.\(^3\) Moreover, the Dodd–Frank Act will also prohibit banking entities from engaging in the “proprietary trading” of financial instruments unrelated to customer-driven business.\(^4\) Surely, these and other provisions

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2. A derivative is “an agreement to pay or receive an amount of money determined by future changes in some interest rate, asset price, currency exchange rate or credit rating.” Lynn A. Stout, Why We Need Derivatives Regulation, DEALBOOK (Jan. 20, 2011, 6:18 PM), http://dealbook.nytimes.com/2009/10/07/dealbook-dialogue-lynn-stout/.
3. Dodd–Frank Act § 723 (2010). Such a dramatic change in the structure of the derivatives market is believed necessary to reduce the desire of financial institutions to utilize derivatives for purposes other than hedging, such as speculation. Stout, supra note 2. Unless firms find significant loopholes in the Dodd–Frank Act, it should have the effect of helping to reduce the financial sector’s systemic risk by increasing the cost of speculation. Id.
found in the Act will help reduce the financial sector’s proclivity for creating systemic risk.

However, the approach taken in the Dodd–Frank Act to reduce the financial sector’s systemic risk is incomplete. The problem is that it is backward-looking. The Act does not take into consideration that—if history is any guide—financial innovation will lead to the development of new financial sector business models that are potentially unsustainable. Unfortunately, it is unpredictable which models they will be and whether they will reach the level of implementation such that new critical nodes of systemic risk will be created and possibly realized.

There are several notable examples of the financial sector developing and creating unsustainable business models. Prior to the 1930s, our banking system was susceptible to runs until federally sponsored deposit insurance was implemented; in the early 1980s, savings and loan institutions and Fannie Mae—a government sponsored enterprise set up to create a secondary market in residential mortgage loans—suffered large losses because of a business model that relied heavily for its success on interest rates forming an upward sloping yield curve; in 1998, the near collapse of Long-Term Capital Management (LTCM) resulted from a business model that did not anticipate the negative effects on its investments from the sudden and violent movements in bond prices, the overreliance on financial leverage, and on the use of financial models that underestimated the probability of rare events; and in 2008, American International Group, Inc. (AIG) and other market participants such as Lehman Brothers Holdings Inc.; Merrill Lynch & Co., Inc.; Bear Stearns Companies, Inc.; American Home Mortgage Investment Corporation; Independent National Mortgage Corporation (IndyMac); Thornburg Mortgage Inc.; and New Century Financial Corporation being, as it turns out, overly dependent on the shadow banking sector for their short-term funding—fell victim to the sudden illiquidity of securities backed by residential mortgage loans.

Yet, it is not necessarily a bad thing that the financial sector utilizes unsustainable business models. For example, prior to the rise of residential mortgage loan securitization, borrowing short and hoping that the yield curve would not invert was

9. Id. at 18.
10. While securitization played a major role in the recent financial crisis, it is more important to understand the process itself as a financial innovation that enhances the efficiency of the financial markets. According to Professor Stephen Schwarz,

[S]ecuritization effectively allocates risk with capital. It enables companies to access capital markets directly, in most cases at lower cost than the cost of issuing direct debt, such as bonds or commercial paper. It avoids middleman inefficiencies. It also helps to transform financial assets, such as loans, into cash for new extensions of credit . . . .
really the only way that financial institutions could provide the long-term fixed rate mortgage loans that borrowers desired. Moreover, this was a very workable strategy for many years up until the early 1980s.11

In essence, the financial sector’s use of unsustainable business models creates risk at all levels, including firm-specific, sector and systemic. It is the price we pay for allowing the financial sector to find innovative ways to allocate our investment capital in a world of incomplete financial markets.12 The economy relies on this sector to make the necessary investments in time, resources, and research in order to efficiently decide where our scarce investment capital should go.13 For the financial sector to fulfill its vital mission in our economy, an unfortunate byproduct is systemic risk.

Therefore, a supplement to the approach taken in the Dodd-Frank Act is required. Regulators need to make sure the financial sector is not overinvesting in unsustainable business models that may ultimately lead to unnecessary nodes of systemic risk. To accomplish this task, policy makers and regulators must focus on and regulate those practices that encourage financial sector participants to be indifferent to the use of unsustainable business models. One possible practice originates from the large, front-loaded bonus arrangements provided Wall Street employees.14 These arrangements, the focus of this Article, provide incentives for employees to focus on maximizing their personal short-term returns at the expense of their employers’ long-term interests.15

The goal in solving this indifference problem is to lengthen the period of time over which Wall Street employees are able to cash in on their bonus compensation and thereby more closely align the interests of Wall Street employees with their employers. Moreover, from an efficiency perspective, it would be most preferable to have the market place do this without government intervention. However, as argued in Part V of this


11. Barth et al., supra note 6, at v. It is not just an inverted yield curve that is the problem for financial institutions that adopt this strategy, but also the duration of the inversion in combination with the size of the spread between short and long-term interest rates. Id. at v–vi.

12. In the real world of financial intermediation, where information is costly and intermediaries cannot be passive, the financial sector plays an invaluable role in information gathering and market-making. Ben S. Bernanke, Nonmonetary Effects of the Financial Crisis in the Propagation of the Great Depression, 73 AMER. ECON. REV. 257, 263 (1983).

13. Id.

14. Wall Street employees include traders, investment bankers, and asset managers.

15. According to Professors Bebchuk and Spamann:

It is now well-recognized that by enabling executives to cash large amounts of equity-based and bonus compensation before the long-term consequences of decisions are realized, pay arrangements have provided executives with incentives to focus excessively on short-term results and give insufficient weight to the consequences that risk-taking would have for long-term shareholder value.

Article, the strong negotiating position of Wall Street employees makes it difficult to implement changes in bonus compensation arrangements and as argued in Part VI, the executive management of financial sector firms are both limited and conflicted in their ability to align the interests of their employees with their firms. Therefore, the federal government, with its interest in managing systemic risk, must step into the compensation arena and help make sure that there is a proper alignment of interests.

To efficiently lengthen out the period of time over which Wall Street employees receive their bonus compensation, this Article recommends changes to the current federal tax laws, supplemented by the use of powers that policy makers and regulators already have under current law, namely section 956(b) of the Dodd–Frank Act. More specifically, this Article recommends limiting the tax deductibility of financial sector compensation at the entity level, similar to Internal Revenue Code section 162(m), but with a much greater reach as it would apply to all Wall Street employees who work for financial sector firms and it would also not allow for performance based exceptions to the deductibility limit. This new law would be supplemented by a provision that would restrict payouts of current and deferred bonuses at those times when a firm’s performance measures indicate excessive firm-specific risk.

Part II begins the discussion by defining systemic risk and explaining how it interacts with public policy. Part III describes the issues involved in managing systemic risk. Part IV describes the front-loaded bonus culture and the problems that it causes. Part V explains why the corporate governance of financial sector firms does not have the negotiating strength to change the front-loaded bonus culture without federal government support. Part VI explains why executive management cannot be expected to manage the short-term perspective of its employees. Part VII advocates the use of tax policy to cool the financial sector’s front-loaded bonus culture. Part VIII provides a brief conclusion.

II. SYSTEMIC RISK AND PUBLIC POLICY

In terms of systemic risk, the financial crisis of 2008 had aspects of the old and the new. In one respect, the collapse of the shadow banking system was similar to an old fashion bank run, but instead of having a run on bank deposits, there was a run on short-term debt. The catalyst was the fall in housing prices. When housing prices started to fall sharply, the value of subprime mortgage loans followed suit, soon to be followed by the value of asset-backed securities linked to these loans. This market upset spread to other asset classes, causing financial institutions that were reliant on short-term collateralized debt for their funding, severe liquidity problems. Thus, what resulted was a run, but not a run on bank deposits.

But the financial crisis also implicated the relatively new aspects of systemic risk that are created by the interrelatedness of our major financial institutions, aspects that first came to light during the meltdown of LTCM in the late 90s. For example, the desire

17. Id.
18. Id.
19. Id.
20. Id.
to gain regulatory control of the derivatives market as embodied in the Dodd–Frank Act\(^\text{21}\) is a direct result of the Federal Reserve’s $182.5 billion bailout of AIG.\(^\text{22}\) More specifically, the Federal Reserve’s spending of $50 billion to pay off counterparties who had entered into credit default swaps (CDS; an agreement between two parties pursuant to which “the protection seller agrees to protect the protection buyer against credit risk events associated with specified underlying securities”\(^\text{23}\)) with AIG’s Financial Products subsidiary (AIGFP). The Federal Reserve was compelled to intervene not so much to save AIG, but to save its counterparties.\(^\text{24}\) The $50 billion bailout of AIGFP’s CDS business came in the form of payouts to at least 22 of the world’s largest and most prominent financial institutions.\(^\text{25}\) Thus, the $50 billion bailout of AIGFP’s CDS business can be understood as the government taking action to make sure the virus infecting AIG did not spread to other major financial institutions.

Therefore, to create a modern definition of systemic risk, it is necessary to take into consideration the potential for bank runs, both in the depository and the shadow banking sectors, as well as the risk caused by the interrelatedness of our major financial institutions. An excellent place to start is the definition of systemic risk provided by Professor Steven Schwarcz.

According to Professor Schwarcz, systemic risk is:

the risk that (i) an economic shock such as market or institutional failure triggers (through a panic or otherwise) either (X) the failure of a chain of markets or institutions or (Y) a chain of significant losses to financial institutions, (ii) resulting in increases in the cost of capital or decreases in its availability, often evidenced by substantial financial-market price volatility.\(^\text{26}\)

However, this definition of systemic risk does not address the process of its realization or its duration. Such information has important implications for policy makers because it clarifies why the management of systemic risk is so important and how we should address it. Therefore, the following paragraph enhances Professor’s Schwarcz’s definition of systemic risk:

Under certain conditions, the systemic risk described in part (i) may lead to a freezing up of the financial sector (financial institutions and markets), a scenario where the sector is only willing to allocate scarce investment capital to the highest quality credits, leaving more risky but worthy investment opportunities unfunded.\(^\text{27}\) The duration of this phenomenon may be for


\(^{23}\) Id. at 9.

\(^{24}\) Id.

\(^{25}\) Id. at tbl.4. Most notably, when AIG’s CDS obligations were closed out Goldman Sachs, Deutche Bank and Societe General received $8.1 billion, $5.4 billion and $11 billion, respectively, in Federal Reserve funded payments. Id. at 13.

\(^{26}\) Schwarcz, supra note 7, at 204.

\(^{27}\) Many years ago, Federal Reserve Chairman Ben Bernanke, then Professor Bernanke, provided an excellent explanation of how a crisis in the financial sector can ultimately lead to an economic depression. According to Professor Bernanke:
extended periods of time, leading to significant and prolonged declines in aggregate output and employment.\textsuperscript{28}

This enhanced definition directly addresses the scenario that policy makers fear the most, the scenario where the freezing up of the financial sector leads to a macroeconomic event similar in scope and duration to the Great Depression. This fear explains what drove policy makers and regulators to take such unprecedented and extreme measures during the recent financial crisis. Examples of such measures included the Federal Reserve’s bailout of AIG;\textsuperscript{29} its trillion dollar purchase of Fannie Mae, Freddie Mac, and Ginnie Mae’s mortgage-backed securities;\textsuperscript{30} the Federal Reserve of New York’s Term Asset-Backed Securities Loan Facility (TALF) that provided $200 billion of liquidity to the market for asset-backed securities funding small business and consumer loans;\textsuperscript{31} the $700 billion Troubled Asset Relief Program (TARP);\textsuperscript{32} and the federal government’s takeover and bailout of Fannie Mae and Freddie Mac.\textsuperscript{33}

This enhanced definition also leads to a very important public policy maxim: \textit{policy makers must err on the side of overreaction in order to avoid the scenario where the realization of systemic risk leads to a prolonged freezing up of the financial sector.} When it is apparent that an economic shock has impacted the financial sector, the potential cost to the economy in terms of lost output and employment is too great for the government not to take action even if it knows that there is a high probability of a false positive. When the financial sector begins to teeter, the federal government must act, and act on a massive scale.

There are many ways in which problems in credit markets might potentially affect the macroeconomy. Several of these could be grouped under the heading of “effects on aggregate supply.” For example, if credit flows are dammed up, potential borrowers in the economy may not be able to secure funds to undertake worthwhile activities or investments; at the same time, savers may have to devote their funds to inferior uses. Other possible problems resulting from poorly functioning credit markets include a reduced feasibility of effective risk sharing and greater difficulties in funding large, indivisible projects. Each of these might limit the economy’s productive capacity.

\begin{quote}
Bernanke, supra note 12, at 267.
\end{quote}

\begin{quote}
28. \textit{Id.} at 257 (In terms of duration, Professor Bernanke noted that disruptions in the financial sector can lead to a protracted economic depression.).
\end{quote}

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29. Harrington, supra note 22.
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33. \textit{MARK JICKLING, RS 22950, CRS REPORT FOR CONGRESS: FANNIE MAE AND FREDDIE MAC IN CONSERVATORSHIP, CONG. RESEARCH SERV.,} (2008), \textit{available at} http://fpc.state.gov/documents/organization/110097.pdf. As stated in the report,
\end{quote}

\begin{quote}
A failure or default by Fannie or Freddie would have severely disrupted financial markets around the world. If the GSE portfolios of mortgage loans and MBSs had to be liquidated, prices would plunge, the secondary market for mortgages would be decimated, and the supply of new mortgage credit might be severely restricted. These market disruptions would have negative impacts on the economy as a whole.
\end{quote}

\begin{quote}
\textit{Id.} at CRS-4.
\end{quote}
III. MANAGING SYSTEMIC RISK

Massive government interference in the marketplace in order to keep systemic risk from becoming fully realized can be very costly to the federal government and its taxpayers. Moreover, such an approach creates a moral hazard for policy makers. That is, if financial institutions and their employees know that the government will bail them out if a problem occurs, this will encourage them to engage in risky behavior and most likely increase the amount of the financial sector’s systemic risk. Therefore, finding ways to efficiently eliminate or minimize the presence of systemic risk in the economy is highly desirable.

A. Internalizing Systemic Risk

According to Professor Schwarcz, “the externalities of systemic failure include social costs that can extend far beyond market participants. Thus, market participants will not want to internalize those costs and will take an insufficient amount of care to prevent them.” If so, then forcing market participants to internalize the cost of the systemic risk they create is the obvious solution.

Unfortunately, there is no obvious way to efficiently allocate the cost of systemic risk to market participants. In an ideal world, we would utilize Professor Easterbrook and Fischel’s approach when dealing with negative externalities such as air and water pollution. Assuming that we can trace such pollution to specific firms,

the task is to establish property rights so that the firm treats the social costs as private ones, and so that its reactions, as managers try to maximize profits given these new costs, duplicate what all of the parties would have agreed to were bargaining among all possible without cost.

In the context of systemic risk, the government would apply a tax such that each firm would be required to pay a dollar in tax for each dollar of systemic risk that they created (Pigouvian tax). Unfortunately, information on how much systemic risk is created by each firm is not available. Unlike air and water pollution, we cannot calculate the dollar amount of systemic risk created per transaction or business model utilized and then tax accordingly. Moreover, and most importantly, the costs of such an approach may greatly

34. Moral hazard is defined as “the greater tendency of people who are protected from the consequences of risky behavior to engage in such behavior.” Schwarcz, supra note 7, at 209.
35. Id.
36. Id. at 206. The problem of externalities is not confined to the externality of systemic risk. According to Professor John Boatright, “the prevailing system of corporate governance appears to sanction, indeed mandate, that managers externalize costs whenever possible.” John R. Boatright, Contractors as Stakeholders: Reconciling Stakeholder Theory with the Nexus-of-Contracts Firm, 26 J. BANKING FIN. 1837, 1849 (2002).
38. Id.
40. Id. at 12.
exceed the benefits since one possible result of implementation without good information is that the tax would be too high, causing a contraction in financial sector activities and potentially a freezing up of the financial sector.\footnote{\textit{Id.} at 15 n.16 ("A tax set at a rate in excess of the marginal social damage collects further revenue, but at the cost of moving the equilibrium from the social optimum, with too little of the externality-generating activity.").}

\section*{B. Reducing Systemic Risk Through Regulation}

Alternatively, we can use financial sector regulation as a means to reduce systemic risk. However, as the tax discussion above indicates, it is not optimal to have little or no systemic risk.\footnote{John Kambhu, Til Schuermann & Kevin J. Stiroh, \textit{Hedge Funds, Financial Intermediation, and Systemic Risk}, FRBNY ECON. POLICY REV., Dec. 2007, at 6 http://www.newyorkfed.org/research/epr/07v13n3/0712kamb.pdf.} Doing so would freeze up the financial sector so that it could not fulfill its goal of financial intermediation, having the same effect as if systemic risk had been realized and the disaster scenario had occurred.

According to Kambhu, Schuermann, and Stiroh:

An important point is that the optimal level of systemic risk is not zero. A regulator, in principle, could eliminate all systemic risk by imposing sufficiently stringent limits on leverage or balance sheet linkages, or by imposing severe operating restrictions on key financial intermediaries, but this would unduly curtail the efficient activities of the financial sector and would be suboptimal from a social perspective.\footnote{\textit{Id.}}

From this perspective, systemic risk is simply the price we pay for allowing the financial sector to find innovative ways to allocate our investment capital in a world of incomplete financial markets.\footnote{If financial markets were complete and information costs negligible, then the role of the financial sector could be ignored. \textit{See Bernanke, supra} note 12, at 263. Unfortunately, this is not the world in which we live.} Someone or some sector must be proactive in deciding where our scarce investment capital should go.\footnote{\textit{Id.}} For the financial sector to fulfill its mission in our economy, it will be creating—at least for the foreseeable future—systemic risk.

\section*{C. Finding the Right Balance in Regulating Systemic Risk}

When it comes to managing systemic risk, policy makers are in somewhat of a bind. On one hand, systemic risk—if left unmanaged and allowed to take its natural course for a prolonged period of time—may lead to the freezing up of the financial sector—the worst case scenario. On the other hand, over-regulation also has the potential for freezing up the financial sector and leading the economy into the same worst case scenario. Therefore, a tempered approach, such as tweaking capital ratios or having policy makers and regulators target known critical nodes of systemic risk, such as in the derivatives market or in the proprietary trading departments of large banking institutions, and then trying to regulate accordingly, would appear reasonable. This is the approach taken in the
Dodd–Frank Act. However, the effectiveness of the ex ante approach taken in the Dodd–Frank Act to reduce the financial sector’s systemic risk is incomplete because it is backward-looking. It looks to save us from the battles of yesterday and what we have learned from experience, but it does not take into consideration that—if history is any guide—financial innovation will lead to the development of new financial sector business models that are potentially unsustainable.

In a world where systemic risk must exist, it should not be surprising that the financial sector will develop and utilize unsustainable business models. As already discussed, history is replete with examples of the financial sector developing and creating such models.\(^{46}\) Unfortunately, it is unpredictable which business models will become unsustainable and whether they will reach the level of implementation such that new nodes of systemic risk will be created and possibly realized. However, even with all this uncertainty, it is not necessarily a bad thing that the financial sector utilizes unsustainable business models. For example, prior to the rise of residential mortgage loan securitization,\(^ {47}\) the funding base for many institutions specializing in the origination of residential mortgage loans was made up primarily of short-term deposits.\(^ {48}\) Therefore, borrowing short and hoping that the yield curve would not invert was really the only way that financial institutions could provide the long-term fixed rate mortgage loans that borrowers desired. As it turned out, that was a very workable strategy for many years up until the early 1980s.\(^ {49}\)

Given that the economy must tolerate a certain amount of systemic risk in order for the financial sector to function and that it is acceptable for the financial sector to utilize unsustainable business models when there is no viable alternative, a new focus is needed to supplement the approach taken in the Dodd–Frank Act. More specifically, policymakers need to focus on making sure the financial sector is not overinvesting in unsustainable business models that may ultimately lead to unnecessary nodes of systemic risk. This is the real lesson of the financial crisis of 2008. This is also why the approach taken in the Dodd–Frank Act is not complete and must be supplemented.

**IV. Wall Street’s Front-Loaded Bonus Culture**

Wall Street’s bonus culture—a culture that is not confined to the executive suite but can pervade entire firms, such as the largest publicly traded full-service global investment banks\(^ {50}\)—is an easy target for scrutiny when trying to identify practices that may lead to an overinvesting in unsustainable business models. On Wall Street,\(^ {51}\) 60% of a Wall Street employee’s compensation comes from an annual bonus,\(^ {52}\) a large amount of which

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46. See supra text accompanying notes 5–9.
47. See supra text accompanying notes 10 and 11.
48. Barth et al., supra note 6, at 7.
49. Id. at v. It is not just an inverted yield curve that is the problem for financial institutions that adopt this strategy, but also the duration of the inversion in combination with the size of the spread between short and long-term interest rates. Id. at vi.
50. The largest of the U.S. based institutions include Bank of America (Bank of America Merrill Lynch), Goldman Sachs, Morgan Stanley, Citigroup and J.P. Morgan Chase.
51. In the context of this Article, Wall Street is not a geographic location but rather refers to those individuals who participate in our financial sector as traders, investment bankers, and asset managers.
comes in the form of cash. For example, annual cash bonuses for securities industry employees who worked in New York City averaged between $99,200 and $191,360 for the years 2005 to 2009. But those bonus numbers really underestimated the short-term potential rewards of certain Wall Street employees who were compensated above the mean. In 2008, a tough year for bonuses—especially for cash bonuses at the executive level—Goldman Sachs paid out $4.82 billion in bonuses—of which $2.24 billion was in cash, providing 953 employees with at least $1 million each and 78 of those employees with $5 million or more. At J.P. Morgan Chase, $8.693 billion in bonuses were paid out—of which $5.908 billion was in cash—providing 1626 employees with at least $1 million each and 84 of those employees with $5 million or more.

Wall Street employees see the potential for an unlimited upside to their annual income when the good years occur and don’t want to lose out on those opportunities. Moreover, as explained below in Part V, these employees are in an extremely strong negotiating position relative to shareholders, making corporate governance as it is currently positioned incapable of taking the necessary actions to cool the sector’s appetite for bonus compensation.

A. The Problems with Front-Loaded Bonus Compensation

It is well understood that significant and disproportionate amounts of equity compensation (stock and stock options) can encourage executive management to make highly-leveraged bets on the assets of a financial institution and, if the strategies provide enough equity compensation payoffs for the executives, may even lead to the making of decisions that have a negative expected value for the firm, no matter what the time horizon. Such strategies no doubt lead to elevated levels of firm-specific risk and, according to this Article’s definition of systemic risk, it also implicates systemic risk especially if this approach is taken at large, systemically interrelated, and publicly-traded financial institutions.

But highly leveraged equity compensation at the executive level is not the only type of compensation that implicates systemic risk. Another type of compensation is the front-loaded bonus compensation.

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54. Wall Street cash bonuses, paid just to securities industry employees who worked in New York City, were estimated to total $25.6 billion in 2005; $34.3 billion in 2006; $33 billion in 2007; $17.4 billion in 2008; and $20.3 billion in 2009. Press Release, Office of the New York State Comptroller, DiNapoli: Wall Street Bonuses Rose Sharply in 2009 (Feb. 23, 2010), available at http://www.osc.state.ny.us/press/releases/feb10/022310.htm. Bonus estimates are based on cash bonus payments and deferred compensation for which taxes have been prepaid in each year. The estimates do not include stock options that have not yet been realized or other forms of deferred compensation. Id. It is also important to note that these numbers underestimate the true amount of bonuses paid out to Wall Street employees as the bonuses paid by New York City-based firms to their employees outside of the City (whether in domestic or international locations) are not included. Id.
56. Id.
57. Bebchuk & Spamann, supra note 15, at 249. See also the example that Professors Bebchuk and Spamann provide. Id. at 255–56.
loaded bonus compensation arrangements provided to Wall Street employees up and down the line. Such compensation arrangements provide a strong incentive for Wall Street employees to focus on the short-run. One possible short-term strategy Wall Street employees can use to maximize the benefits of front-loaded bonus arrangements is to pursue “fake alpha.” Fake alpha refers to appearing to create excess returns but in fact taking on hidden tail risks, which produce a steady positive return most of the time as compensation for a rare, very negative, return. This rare, very negative return results from what can be referred to as a “disaster.” The inverted yield curve, the sudden and violent movement in bond prices that sunk LTCM in 1998, and the collapse of the shadow banking sector in 2008 are all examples of such disasters.

“Real alpha” refers to the excess returns earned over market rates (for a given level of risk) by savvy investment professionals. It is much easier to create fake alpha than real alpha. Unfortunately, it would appear that large, front-loaded bonus arrangements provide a strong incentive for Wall Street employees to pursue fake alpha, resulting in their being indifferent to the pursuit of “real” or “fake” alpha.

For purposes of managing systemic risk, the excessive pursuit of fake alpha leads to a very important point. If business models are structured such that they can achieve either real or fake alpha, and if we assume that it is easier to create fake alpha than real alpha, then indifference to fake alpha would very likely lead to an overinvestment in unsustainable business models. For Wall Street employees, the pursuit of fake alpha is all about showing good results now, before a disaster strikes. Have a good year, get a great bonus. String several good years together and you are a big winner. You are a big winner even though your company may eventually lose.

Moreover, the bonus numbers just presented should make clear that the bonus culture and the incentives to pursue fake alpha are applied up and down the line and not just to the executive office. According to Professor Steven L. Schwartz:

Being compensated for performing specific tasks without regard to long-term consequences to the firm, they are tempted to take a relatively short-term view when performing tasks. This temptation makes secondary managers especially likely to overrely on signals, particularly when the signals align their performance with their economic benefit. Overreliance then makes those

58. Raghuram Rajan, Bankers’ Pay is Deeply Flawed, Fin. TIMES, Jan. 9, 2008, at 15. It is believed that Professor Rajan was the first to both coin the phrase “fake alpha” and explain how it works as an investment strategy. See also Rajan, supra note 10, at 337 (a prescient article describing the risks of the financial sector, including the issue of tail risk, several years prior to the financial crisis of 2008).


60. See M. Barton Waring & Laurence B. Siegel, The Myth of the Absolute-Return Investor, 62 Fin. Anal. J. 14 n.6 (2006) (noting that where there is some degree of market inefficiency, a manager of above-average skill can have a positive expected alpha). Real alpha is also referred to as “Jensen’s alpha.” See Rajan, supra note 10, at 335 (“[T]he excess return produced by the manager over the risk-free rate, per unit of risk taken.”).

61. See Rajan, supra note 58 (“Alpha is quite hard to generate since most ways of doing so depend on the investment manager possessing unique abilities—to pick stocks, identify weaknesses in management and remedy them, or undertake financial innovation. Such abilities are rare. How then can untalented investment managers justify their pay? Unfortunately, all too often it is by creating fake alpha . . . .”).
managers more likely to act in conflict with their firms. In the recent financial crisis, for example, secondary managers overrelied on signals, in the form of rating-agency ratings and mathematical models, which aligned secondary-manager performance and economic benefit. Thus, “[a] lot of institutional investors bought [mortgage-backed] securities substantially based on their ratings [without fully understanding what they bought], in part because the market has become so complex.” Similarly, there “was an enormous faith in the market’s ability to analyze and measure risk” through mathematical models.  

When Wall Street employees pursue fake alpha, they are not earning excess returns above what the market will offer for the risk taken (real alpha) but, at best, only normal returns with an unusual risk-return profile. If the distinction between real and fake alpha is not taken into account, the result is an under-capitalized institution which has overinvested in unsustainable business models, making it susceptible to disasters.

\[ B. The Fat Tail \]

The financial crisis of 2008 and its disastrous effects coming on the heels of 9/11 has taught us that Professor Nassim Taleb has been right all along: it must be assumed that the world in which we live and most specifically the distribution of a financial sector’s returns follows a power-law distribution, not a normal distribution. A power-law distribution allows for the potential for extreme events even if there is a low or even an unknown probability associated with those events. Or, an extreme event may be totally unknown, such as a black swan, which does not even allow the analyst to attempt to assign a probability to its occurrence. Thus, the distribution of financial outcomes has a much fatter tail than had been commonly assumed.

The implications for a financial sector firm are clear. If a firm incorrectly assumes that the expected distribution of returns for its business operations follow a normal distribution, a probability distribution that has as one of its prominent features minimal tail risk, then the result is the potential for extreme outcomes to be underestimated.  

For example, in the run-up to the financial crisis of 2008, Wall Street firms were heavily involved in the application of what is referred to as the “value-at-risk” modeling approach to measuring investment-portfolio risk. Such an approach “measures the boundaries of risk in a portfolio over short durations, assuming a ‘normal’ market.”

\[ 63. Bernard S. Sharfman, Steven J. Toll & Alan Szydlowski, Wall Street’s Corporate Governance Crisis, 17 CORP. GOVERNANCE ADVISOR 5 (2009). \]
\[ 64. Id. \]
\[ 65. TALEB, supra note 7, at 229–34. \]
\[ 67. Id. at 19. \]
\[ 68. Id. \]
\[ 69. Schwarcz, supra note 62, at 460 (citing Joe Nocera, Risk Mismanagement, N.Y. TIMES MAG. 24 (Jan. 2, 2009)). \]
\[ 70. Id. \]
ignoring an abnormal market and the slim possibility of large losses, it was possible to justify minimal amounts of capital to hold in reserve for generating profits that were perceived by the typical value-at-risk model to have a low risk of loss.\textsuperscript{71} This encouraged the selling of investment products such as credit default swaps that generated small gains but only rarely had losses.\textsuperscript{72} Managers supposedly knew but did not always reveal to their superiors the potential for large losses.\textsuperscript{73}

\textit{C. The AIG Example}

Another example comes from the debacle at AIG. It is interesting to note that AIG reported a very low “capital markets trading” value-at-risk for its Financial Products division (AIGFP) as late as year-end 2007.\textsuperscript{74}

As the story goes, [AIGFP] had initially figured out a way to make real alpha by [selling] credit default swaps \ldots on corporate bonds \ldots. But the unit could not stop at generating real alpha for a relatively small book of business; it ultimately began [selling protection against drops in the value of] more volatile forms of debt such as mortgage backed securities.\textsuperscript{75}

By year-end 2007, AIGFP had outstanding $533 billion (net notional amount) of credit default swaps, with a significant amount being written on debt instruments backed by both prime and sub-prime residential mortgage loans.\textsuperscript{76}

Unfortunately, as housing prices declined and the default rates on sub-prime mortgage loans accelerated in 2007 and 2008, securities backed by residential mortgage loans declined in value and were subject to rating downgrades, causing AIGFP’s swap counterparties to demand that AIG post increasing amounts of contractually required collateral.\textsuperscript{77} When AIG ran out of collateral to post, the Federal Reserve was forced to intervene.\textsuperscript{78} But before the good times came to an end, the employees of AIGFP benefited enormously. From 1999 to 2005, a time when AIGFP’s revenue rose from $737 million to $3.26 billion while its share of AIG’s operating income rose from 4.2\% to 17.5\%, the approximately 400 employees of AIGFP were provided compensation ranging from $423 million to $616 million each year, making the average annual compensation of each employee of AIGFP more than $1 million per year.\textsuperscript{79}

What appears to have occurred at [AIGFP] is a classic example of traders pursuing fake alpha through schemes which are referred to as “Lo strategies.”

\begin{thebibliography}{99}
\bibitem{71} Id.
\bibitem{72} Id.
\bibitem{73} Id.
\bibitem{74} Michael G. Wacek, \textit{Derivatives, AIG and the Future of Enterprise Risk Management}, \textit{SOC’Y OF ACTUARIES} (2008), available at http://www.soa.org/library/essays/rm-essay-2008-wacek.pdf. (citing AIG, Annual Report (Form 10-K) 124 (Feb. 28, 2008)). Consistent with an approach that ignored the real risk of CDS, the calculation did not include credit related factors. \textit{Id.}
\bibitem{75} Sharfman, supra note 59, at 819.
\bibitem{76} Harrington, supra note 22, at 9.
\bibitem{77} \textit{Id.} at 10. Large collateral calls in AIG’s securities lending program worsened its inability to meet collateral calls associated with CDS. \textit{Id.}
\bibitem{78} \textit{Id.}
\end{thebibliography}
These strategies boil down to generating fake alpha by writing “deeply out-of-the money options at the start of the reporting period and hope that they do not end up in the money by the end of the period.” In essence, an insurance policy is sold insuring the losses resulting from a potentially disastrous event, but with a small chance of the event triggering payoff actually occurring. Revenue is booked, enhancing the reported returns, but without sufficient recognition of the potential losses that could occur if the disastrous event actually materializes.80

The growth of AIGFP’s CDS business occurred even though clawbacks were supposedly in place.81 Clawbacks are provisions in bonus plans which require the recipient to return all or part of his or her bonus if certain subsequent negative events occur, such as poor financial performance of the firm.82 At least for some traders, roughly half of their bonuses were retained in AIGFP’s bonus pool for five years so that the payouts could be adjusted for any subsequent gains or losses in the unit’s trades.83 When AIGFP’s CDS business went south, these traders lost tens of millions of dollars.84 However, it also meant that they did not have to return the 50% of the bonuses that were not held back.85

While the growth of the CDS business led to disastrous results, there is no evidence to suggest that AIGFP personnel were knowingly pursuing fake alpha. It is quite possible that the pursuit of fake alpha was done unintentionally with a resolute belief that the risks were negligible.87 For example, the models utilized by the division could have been flawed if they only took into consideration those events that probabilities could be assigned to and ignored those events where there was not enough data to assign probabilities.88 If so, the pursuit of fake alpha was done unknowingly, but with no real expectation of excess returns.89 But to understand its potential impact on AIG and the financial sector’s systemic risk, it is not necessary to make a determination of whether or not AIGFP personnel were intentionally pursuing fake alpha to understand its risks. It is enough to understand that based on the potential bonus income to be earned by AIGFP personnel, with or without clawbacks, there were incredible financial incentives not to pursue an understanding of whether real or fake alpha was being realized, allowing for the ready acceptance of whatever the value-at-risk models were saying about the negligibility of risk.90

80. Sharfman, supra note 59, at 819 (citations omitted).
82. Sharfman et al., supra note 63.
83. Brill, supra note 81.
84. Id.
85. Id.
86. Sharfman, supra note 59, at 820; see also Schwarz, supra note 62, at 462 n.22 (Professor Schwarz neither claims nor believes that most secondary managers would consciously act in a manner that goes against the long-term interests of their firms).
87. Harrington, supra note 22, at 10.
88. Professor Farber noted how the Nuclear Regulatory Commission has been guilty of taking such a deficient approach. Farber, supra note 66, at 7.
90. Professor Taleb gives the example of a trader who if he makes one dollar for the firm ends by earning
The rise and fall of AIGFP’s derivatives business will perhaps go down in history as the classic case study of how the pursuit of fake alpha and inadequate firm risk management intersected with the realization of systemic risk that resulted in a severe negative economic impact. However, going forward, it cannot be predicted which unsustainable business model or combination of models will cause the next intersection to occur. All we can do is try to minimize the creation of new nodes of systemic risk. Unfortunately, we cannot expect regulators to help cut them off at the pass. For example, Professor Nassim Taleb was publicly advocating the elimination of models based on the value-at-risk approach since at least 1997.\textsuperscript{91} Yet, such warnings were ignored by regulators. Moreover, some regulators, such as the SEC, actually embraced value-at-risk as a risk management tool by endorsing its use in its disclosure requirements for measuring the market risk of instruments such as derivatives.\textsuperscript{92}

In summary, large front-loaded bonus compensation arrangements lead to indifference between the pursuit of fake and real alpha. Given that it is easier to create fake alpha than real alpha, indifference to fake alpha would very likely lead to an overinvestment in unsustainable business models. If so, then firms with Wall Street employees have enhanced firm specific risk and the markets they create also have enhanced risk. To correct this situation, policy makers and regulators must find a way to reduce the systemic risk that Wall Street employees create through their indifference to the use of unsustainable business models.

V. THE PERSISTENCE OF WALL STREET’S FRONT-LOADED BONUS CULTURE

It is easy to understand how Wall Street’s bonus culture developed:

In the not so distant past, prior to Wall Street becoming dominated by public firms, Wall Street firms were structured as partnerships that paid out in cash bonuses their respective firms’ residual at year end. Surely, this has influenced what [Wall Street employees] have come to believe to be their optimal form of compensation.\textsuperscript{93}

However, it is not so easy to understand how this culture has persisted in an era when public firms dominate the financial sector:

Even if a partnership-like arrangement is what Wall Street employees desire, the marketplace must still have a reason to be receptive to such arrangements in order for them to become pervasive. This marketplace receptiveness is most likely the result of [Wall Street employees] being in extremely strong bargaining positions relative to shareholders. Their strong bargaining position results from possessing critical skills and abilities (“critical assets”) that can be

\begin{itemize}
  \item 10 cents, but if he losses one dollar for the firm, there is no penalty. \textit{Taleb}, \textit{supra} note 7.
  \item \textsuperscript{91} Interview by Joe Kolman with Nassim Taleb, PhD Candidate, University Paris-Dauphine, (Nov. 1997), http://www.derivativesstrategy.com/magazine/archive/1997/1296qa.asp. Essentially, these models do not measure risk, but ignore it.
  \item \textsuperscript{93} Bernard S. Sharfman, \textit{How the Strong Negotiating Position of Wall Street Employees Impacts the Corporate Governance of Financial Firms}, 5 \textit{VA. L. & BUS. REV.} 349, 363 (2011).
\end{itemize}
assumed to be fully transferable to other firms and therefore not dependent on
the assets of any particular firm. This lack of firm-specific investment allows
them to move easily from firm-to-firm as long as the new firm can provide
them the appropriate amount of financing and/or an adequate trading
platform.94

In a sense, because these employees own and control the assets the firm critically
needs, these employees act more like independent contractors than employees.95

If the firm does not have ownership of the critical assets required for
production, then the firm can no longer think of itself “as a traditional company
with clear boundaries defined by its assets.”96 Most importantly, it creates a
difficult issue for the firm to resolve. That is, how can it retain the critical skills
and abilities possessed by these employees when they are not dependent on any
unique asset of the firm for their productivity and are in essence the valuable
assets themselves?97

For a Wall Street firm to have the reasonable expectation that its employees
who own the key assets of production will stay longer than a bonus cycle, it is
critical for the firm to create a reputation for providing its employees
competitive compensation arrangements year-in and year-out. That is, if
employees do not get the bonus terms they believe other firms are willing to
provide them (explicit contracts, ex ante) or what they think they deserve in the
way of bonuses at the end of the year (implicit contracts, ex post), they may
threaten to leave the firm and break up the team.98

Moreover, if the firm disappoints its employees in its bonus payouts, the firm will no
doubt gain a reputation for not being able or willing to adequately compensate their
employees.99 “Only those prospective employees with lower bonus expectations and
presumably lower productivity would apply for the vacated positions.”100

“The need for Wall Street firms to maintain their reputations for fulfilling their
implicit bonus contracts (ex post) as well as maintaining the perception that they have the
ability to competitively renegotiate their explicit bonus contracts (ex ante), helps explain
why Wall Street firms” continued to pay out large bonuses during the run-up to the
financial crisis of 2008, even when it was clear that economic and financial conditions
were declining.101 Such an imbalance in bargaining strength led the State of New York’s
Attorney General to observe in describing compensation practices at the nine original
Troubled Asset Relief Program (TARP) recipients:

Thus, when the banks did well, their employees were paid well. When the

94. Id. at 363–64 (citations omitted).
96. Sharfman, supra note 93, at 364 (quoting Luigi Zingales, In Search of New Foundations, 55 J. OF FIN.
1623, 1641–44 (2000)).
97. Id. at 363–64 (citations omitted).
98. Id. at 365. According to Zingales, for implicit contracts to be credible, “they require one party or both
to have established some reputation over time.” Zingales, supra note 96, at 1633.
99. Sharfman, supra note 93, at 365.
100. Id.
101. Id.
banks did poorly, their employees were paid well. And when the banks did very poorly, they were bailed out by taxpayers and their employees were still paid well. Bonuses and overall compensation did not vary significantly as profits diminished.\(^{102}\)

Such a statement still holds for the foreseeable future even though public outrage and federal pressure did lead to a reduction in year-end bonuses in 2009.\(^{103}\) The aforementioned fundamentals of Wall Street’s most critical labor markets have not changed. The corporate boards of Wall Street firms still have their hands tied when it comes to making long-term changes in bonus compensation arrangements.\(^{104}\) For example, significant bonus compensation arrangements continue to persist at AIGFP,\(^{105}\) even as AIG continues to receive financial support from the U.S. government and AIGFP continues to unwind its failed CDS business.\(^{106}\) Moreover, there is a collective action problem that the corporate governance of Wall Street firms will have difficulty overcoming.\(^{107}\) Any firm that makes the first move to reign in bonus compensation will face the risk of other firms not following.\(^{108}\) Therefore, it should be expected that Wall Street will continue to persist in providing large front-loaded bonus packages to its employees unless the federal government intervenes.

VI. THE ROLE OF EXECUTIVE MANAGEMENT IN CONTROLLING THEIR EMPLOYEES’ SHORT-TERM FOCUS

Given the pursuit of fake alpha as a likely strategy for maximizing the benefits of front-loaded bonus compensation, it is fair to argue that executive management should be responsible for controlling their employees’ potential pursuit of fake alpha.\(^{109}\) However, there are three reasons why it is unlikely that executive management will be effective. First, executive management may only know from hindsight that their employees had been in pursuit of fake, not real alpha. Executive management cannot be expected to have a detailed understanding of the complex financial models that their lower level employees base their decisions on.\(^{110}\) This results in an asymmetry of information where executive management must trust their lower level employees to pursue transactions that do not ultimately end up harming the firm. When results turn disastrous, then executive

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106. Id.


108. Id.

109. Id. at 466. (“[T]op managers . . . are supposedly responsible for ensuring, and thus monitoring, that the tasks performed by secondary managers take into account long-term consequences to the firm . . . .”).

110. Id. at 463.
management will become informed about what was really being pursued.

Second, executive management may also benefit from the pursuit of fake alpha by their traders, investment bankers, and asset managers, as their bonus compensation arrangements may not be that much different than their employees. Executive management compensation may be somewhat riskier in the sense that it will be based more on stock awards and options than cash. However, if the vesting and exercise of a significant amount of this compensation only takes a couple of years to occur, then executive management will also benefit from this strategy that is based on the improbability of a disaster occurring in the near future. For example, Professors Bebchuk, Cohen, and Spamann estimate that the top executive teams of Bear Stearns and Lehman Brothers derived cash flows of about $1.4 billion and $1 billion respectively from cash bonuses and equity sales from 2000 to 2008, the years just prior to their collapse.

Third, the successful pursuit of fake alpha allows top management to receive additional compensation in the form of prestige and adoration that goes along with being perceived as successful managers of a large and profitable financial firm, perhaps for the length of their careers. Therefore, only the power of fiat as found in government action has the ability to significantly reduce the financial sector’s desire to pursue fake alpha.

VII. MANAGING SYSTEMIC RISK THROUGH THE MANIPULATION OF BONUS COMPENSATION PLANS

To solve the problem of front-loaded bonus compensation arrangements the following alternative approaches will be discussed: (1) limiting the percentage of bonus awards that can be paid out in cash; (2) tying executive compensation to a firm’s enterprise value as represented by a diversified basket of the firm’s securities; (3) diversifying a bank executive’s pay by including a significant amount of his bank’s public subordinated debt securities; and (4) providing equity-based incentive compensation for key personnel of financial institutions only in the form of restricted stock or restricted stock options.

A. The European Union Approach

One option for the government is to limit the percentage of bonus awards that can be paid out in cash, mandate clawbacks on bonus compensation, or require the tying of bonus compensation to restricted stock awards or stock options that vest slowly over time. This is the approach recently taken by the European Union. As means to protect against “short term profit chasing over long term stability,” the European Union (EU) has mandated relatively strict guidelines limiting the payment of bonuses in the financial services sector. These guidelines, subject to approval at the member state level,

111. Id. at 461 n.15.
113. For example, Anthony Mozilo enjoyed the personal and financial benefits of leading Countrywide Financial Corporation from 1968 until its collapse and ultimate sale to Bank of America in 2008. Connie Bruck, Angelo’s Ashes, THE NEW YORKER, June 29, 2009, at 46. The pursuit of fake alpha may not have been the dominate strategy for this entire period, but by the year 1996, the lure of sub-prime mortgage loans appeared to have begun pushing Countrywide in that direction. Id. at 50.
114. European Parliament Users in a New Era for Bankers’ Bonuses, EUR. PARLIAMENT (July 7, 2010),
include:

- Bonuses will be capped as a proportion of salary. Each bank will have to establish limits on bonuses related to salaries, as required by a bank’s national regulatory authority, based on still-to-be-determined EU-wide guidelines;
- Upfront cash bonuses will be capped at 30% of the total bonus and to 20% for particularly large bonuses;
- Between 40 and 60% of any bonus must be deferred for at least three years and can be recovered if investments do not perform as expected; and
- At least 50% of the total bonus must be paid as “contingent capital” (funds to be called upon first in case of bank difficulties) and shares.\footnote{Id.}

These bonus rules will apply to senior management, risk takers, controller functions, and any employee receiving total remuneration that takes them into the same remuneration bracket as senior management and risk takers.\footnote{Frequently Asked Questions on the Capital Requirements and Bonuses Package, EUR. PARLIAMENT, available at http://www.eur.parl.europa.eu/news/expert/background_page/042-77710-183-07-27-907-20100702BKG77709-02-07-2010-2010-true/false/default_p001c008_en.htm. The pursuit of fake alpha may not have been the dominate strategy for this entire period, but by the year 1996 the lure of sub-prime mortgage loans appeared to have begun pushing Countrywide in that direction. Id. at 50.} That is, the rules will apply to all employees whose professional activities would have a material impact on a bank’s risk profile.\footnote{Id.

However, it is doubtful that this politically determined, relatively inflexible, and one-size-fits-all approach to bonus compensation arrangements will turn out to be very efficient—for example, the restriction on bonuses not being more than a yet-to-be-determined percentage of total annual remuneration. Putting a severe cap on the upside potential for annual bonus compensation will definitely go far in helping to cool the short-term focus of Wall Street employees, but perhaps it goes too far. In these perilous economic times, the global economy is demanding that the financial sector come up with clever ways to finance an exploding amount of its public and private debt. Therefore, radically reducing the economic incentives to be creative may be counterproductive. On the other hand, a three-year waiting period for the deferral of bonus income does not appear to be long enough to reduce a Wall Street employee’s focus on the short-term. AIGFP was reported to have a deferral period of five years and it did not help to reduce the incentive to pursue fake alpha.\footnote{See supra text accompanying notes 81–85.} Moreover, if clawbacks are mandated, how will the member governments efficiently determine when clawbacks are to be triggered and the number of years back the provisions should apply?\footnote{Sharfman et al., supra note 63.} Finally, as market conditions change over time, there would be an increasing risk of a major disequilibrium in the labor

market for Wall Street employees as these guidelines lag behind these changes.

**B. Alternative Academic Proposals**

Recently, Professors Bebchuk and Spamann, Professor Tung, and Professors Bhagat and Romano have put forth different proposals on how to regulate executive compensation at certain financial sector firms. However, each of their articles have a significantly narrower focus than found in this Article, as Bebchuk and Spamann as well as Tung focus exclusively on executive compensation at deposit-taking financial institutions, while Bhagat and Romano, taking an approach similar to the European Union, focus only on the compensation of key personnel at financial institutions that received financial assistance from the government during the recent financial crisis. Moreover, these articles focus primarily on the risk-shifting to society that occurs when executives are provided large and disproportionate amounts of equity compensation. By contrast, this Article focuses on the risk-shifting to society resulting from the front-loaded compensation arrangements provided Wall Street employees up and down the line. Nonetheless, their writings are instructive as they help to identify the issues involved in regulating the compensation of Wall Street employees.

1. **Bebchuk and Spamann**

Professors Bebchuk and Spamann see a problem when a bank executive’s compensation is overweighted with equity-based incentives. According to Bebchuk and Spamann:

> Whereas gains from risky ventures are generally captured by the holders of

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121. Bebchuk & Spamann, supra note 15.
124. According to Bebchuk and Spamann:

> Compensation structures at lower levels of banks’ hierarchies are certainly important for risk-taking at those levels, and for this reason, they have been receiving substantial attention from the media and regulators. But, lower-level compensation schedules are set by higher levels of management. Hence, setting appropriate incentives for the highest level of management will likely have ripple effects throughout the entire banking organization without replacing decentralized private decision making with government regulation. Top executives’ incentives are a key to the behavior of banks as a whole.

Bebchuk & Spamann, supra note 15, at 254.

This Article respectively disagrees with the approach of focusing exclusively on executive compensation. As already discussed, because of the strong negotiating position of Wall Street employees, executive management may not have much say in how compensation arrangements are structured at the non-executive level, see supra text accompanying notes 94–108, or how much risk non-executive employees take when there are significant rewards to be gained from pursuing fake alpha. See supra text accompanying note 58–92.

125. Bhagat & Romano, supra note 123.
126. See infra text accompanying notes 127–47.
shares and options, losses can fall partly on preferred shareholders, bondholders, depositors, and taxpayers. Hence, shareholders, and executives aligned with them through stock and option pay, have incentives to engage in risky business beyond what is efficient because they do not internalize the adverse effects that risk-taking has on other stakeholders in the bank.\footnote{128}{Id. at 251.}

Equity-based compensation provides an executive with incentives to take excessive risks\footnote{129}{According to Bebchuk and Spamann, taking excessive risks refers “to taking actions that may either increase or decrease the value of the bank’s assets but whose expected effect on the bank’s value is negative.” Id. at 255.} since that would be the best way for an executive to profit from his or her position as a highly leveraged investor in the bank’s common stock.\footnote{130}{Id. at 249.} If so, then an executive would have little reason to take into consideration the risks to other stakeholders who fund the bank such as depositors, bondholders and preferred stockholders.\footnote{131}{Id.} To remedy this situation, Bebchuk and Spamann propose that a bank executive’s compensation should be tied to a firm’s enterprise value as represented by a diversified basket of the firm’s securities.\footnote{132}{Bebchuk & Spamann, supra note 15, at 253.} An executive’s annual compensation would be composed of significantly less leveraged equity-based compensation than the norm in today’s executive compensation market and more of a representative mix of a company’s outstanding securities.\footnote{133}{Id.} These securities would normally include preferred stock, bonds, and common equity.\footnote{134}{Id.} Moreover, cash bonus compensation would no longer be a function of accounting measures that “exclusively reflect the interests of common shareholders, such as earnings per share,” but instead would utilize metrics that reflect the interests of non-shareholder investors.\footnote{135}{Id.}

2. Tung

Professor Tung proposes that a bank executive’s pay should be diversified by including a significant amount of his bank’s public subordinated debt securities.\footnote{136}{Tung, supra note 122, at 1.} Tung feels that his approach is an improvement over Bebchuk and Spamann’s basket of securities approach because it offers “a more direct and reliable inducement for bankers to curb excessive risk taking.”\footnote{137}{Id. at 3.} This is based on the assumption that Bebchuk and Spamann’s basket of securities would be made up of bank holding company securities and not securities directly issued by the bank.\footnote{138}{Id.} Such a basket would be an inefficient means to compensate bank executives as they would provide only indirect incentives to internalize risk at the banking subsidiary.\footnote{139}{Id. at 3–4. See also id. at 45 (stating that banker pay in the form of subordinated debt issued at the bank level would reduce incentives for risky executive behavior).}
directly by the executive’s bank would offer more direct incentives for the executive to internalize risk. Moreover, Tung argues that the use of subordinated securities will allow for fine tuning of executive compensation based on a banker’s existing portfolio of bank and bank holding company securities.

3. Bhagat and Romano

Profs. Bhagat and Romano have recommended that equity-based incentive compensation for key personnel of financial institutions that received financial assistance from the federal government during the recent financial crisis be provided only in the form of restricted stock or restricted stock options. Most importantly, these employees would not be allowed to sell or exercise equity-based compensation for a period ranging between two and four years after he or she leaves a firm.

According to Bhagat and Romano:

Executives who have a significant part of their incentive compensation in the form of such restricted stock and restricted options have diminished incentives to make public statements, manage earnings, or accept undue levels of risk, for the sake of short-term price appreciation. In this regard, the proposal will diminish the unintended perverse incentives (to manipulate or emphasize short-term stock prices over long-term value), yet retain the intended benefits, of equity-based incentive compensation plans. Managers with longer horizons will, we think, be less likely to engage in imprudent business or financial strategies or short term earnings manipulations when the ability to exit before problems come to light is greatly diminished.

Moreover, unlike the proposals by Bebchuk and Spamann and Tung, but consistent with the European Union directive, this proposal would not be restricted to executive management, but would apply to "any individual whose decisions may substantially impact a firm (such as proprietary traders or structured product sales personnel)."

This proposal has been criticized by Tung on several grounds. Most importantly, Tung argues that "managers facing uncertain payoffs many years into the future may be too conservative in their project selection or may simply care less about firm performance, especially given the significant ‘control gap’—the period after retirement and before their equity payoffs, during which they will have no influence over the firm’s performance."

140. Tung, supra note 122, at 3–4.
141. Id. at 47.
143. Id. at 369.
144. Id. at 363.
145. Id. at 366. "We believe the broader coverage is necessary because decisions of individuals such as proprietary traders, who may not be among a financial institution’s highest compensated individuals, can adversely affect, indeed implode, a firm." Id.
146. Tung, supra note 122, at 43–44.
147. Id. at 43.
C. A Tax Policy Approach

In the context of finding the right means to regulate the front-loaded bonus compensation of Wall Street employees, at least two very important lessons can be learned from the European Community proposal and the three academic proposals. First, all four proposals rely on accomplishing their basic goal, reducing the incentives for excessive risk-taking by interfering directly in the compensation marketplace. Each of these proposals, to a lesser and greater extent, attempts to dictate how compensation packages should be structured, thereby reducing the ability of such packages to provide the optimal incentives for profitability and risk management. Therefore, a less intrusive approach would be more desirable.

Second, none of these proposals discuss how, on one hand, they would ultimately reduce excessive risk-taking and, on the other, provide safeguards so that the financial sector can effectively continue its role as the allocator of investment capital. Any financial sector compensation proposal is constrained by the concern that it may go too far in regulating the compensation marketplace and potentially contribute to a freezing up of the financial sector.

D. The Heart of the Proposal

With these lessons in mind, this Article proffers a tax policy approach to regulating the compensation of Wall Street employees. The goal of this Article is to provide incentives for Wall Street employees who receive large amounts of bonus compensation to focus less on short-term returns and more on long-term results, thereby encouraging them not to be indifferent to the use of unsustainable business models. However, such incentives should not interfere in the workings of the compensation marketplace. This Article recommends limiting the tax deductibility of financial sector compensation at the entity level, similar to Internal Revenue Code section 162(m), but with a much greater reach as it would apply to all Wall Street employees who work for financial sector firms. It would also not allow for performance based exceptions to the deductibility limit. Specifically, for all Wall Street employees of a financial sector firm, regardless of legal form, annual compensation above one million dollars would not be tax deductible at the entity level if paid out in cash or exercisable into cash during the bonus year. Subsequently only up to ten percent of the accumulated non-cash bonus compensation

148. Internal Revenue Code section 162(m) places a one million dollar cap on the annual deduction for compensation to the chief executive officer (CEO) and the next four highest compensated officers. I.R.C. § 162(m) (2006). Executive compensation generally consists of salary, fringe benefits, annual cash incentives, and long-term cash or stock-based incentives. Id. The section 162(m) limit does not apply to (1) commissions, (2) non-taxable fringes and qualified retirement plan contributions, and (3) performance-based compensation. Id.

149. The broadly interpreted performance-based compensation exception of section 162(m) has led to a significant amount of gaming by corporations, allowing them to deduct large amounts of executive compensation above the $1 million limit. How Bill Clinton Helped Boost CEO Pay, BUS. WEEK (Nov. 27, 2006), http://www.businessweek.com/print/magazine/content/06_48/b4011079.htm?chan=gl. For example, “one perfectly legal way to follow the letter of 162(m), if not necessarily its spirit, involves listing dozens of performance categories, keeping many hopelessly vague.” Id.

150. For purposes of this proposal, Wall Street employees would be defined very broadly to also include those in executive management whose compensation is a significant function of revenues generated by asset managers, traders, and investment bankers.
provided during the bonus year could be potentially deducted by the firm in each following year for a period of ten years once the $1 million ceiling has been reached. 151

This approach is demonstrated in the following three examples:

Example 1: In the year 2010, a trader receives an annual salary of $200,000 and a cash bonus of $2,000,000. In the tax year 2010, the firm deducts $1,000,000 as compensation expense but cannot deduct the $1,200,000 that exceeds the $1,000,000 threshold.

Example 2: In the year 2010, a trader receives an annual salary of $200,000, a cash bonus of $800,000 and a restricted stock award worth $1,000,000 that becomes fully vested in 2015. In the year 2010, the firm deducts $1,000,000 for compensation expense. In year 2015, the stock is still worth $1,000,000 but has become unrestricted. Under existing law, 152 the employee must report the $1,000,000 as ordinary income in the year 2015 and since the corporation’s compensation deductions mirror the recipient’s compensation income in both amount and timing, the company would then be able to deduct $1,000,000 in 2015 as well. However, under the proposed tax deductibility rule for financial sector firms, the company would only be able to deduct 50% or $500,000 of the value of the unrestricted stock in 2015.

Example 3: In the year 2010, a trader receives an annual salary of $200,000, a cash bonus of $500,000, and 100,000 stock options with a strike price of $25 that vests at a rate of 20,000 options per year over the next five years. In the year 2010, the firm deducts $700,000 for compensation expense. If the price of the underlying stock goes up to $100 in 2011 and all 20% or 20,000 of the options are exercised, then the employee would report a taxable gain of $1.5 million, but the firm could only take a tax deduction of $1,020,000; $300,000 representing 4000 of the shares exercised to get to the initial $1 million ceiling, plus $720,000 representing the maximum 9600 shares or 10% of the total options that could be exercised in any subsequent year for entity tax purposes ((100,000– 4000)/10) times $75, the difference between the stock price and exercise price.

This approach makes it costly for firms to provide large short-term payoffs for its employees in the form of front-loaded bonus compensation, providing firms an incentive to significantly stretch out bonus payouts. Employees may be resistant, but the cost of their services to their respective firms has just gone up unless they agree to a restructuring of their bonus compensation. Even if Wall Street employees are the critical assets required for their respective firm’s success, these firms should be able to restructure their compensation arrangements if it can be assumed that there is some elasticity in the supply of their employees’ services. However, it does not restrict corporate boards from implementing policies that provide large short-term payouts if they

151. Courts provide Congress great deference when it comes to its taxing power. Erick Jensen, Would a Tax on AIG Bonus Recipients Really Be a Tax?, TAX NOTES 1033, 1034 (2009). Moreover, a regulatory tax targeting a specific sector of the economy should not raise issues of constitutional law, such as under the takings clause. In Sonzinsky, a case involving the constitutionality of a license tax on dealers in firearms, the U.S. Supreme Court stated:

A tax is not any the less a tax because it has a regulatory effect . . . and it has long been established that an Act of Congress which on its face purports to be an exercise of the taxing power is not any the less so because the tax is burdensome or tends to restrict or suppress the thing taxed.

Id. (citing Sonzinsky v. United States, 300 U.S. 506, 513 (1937)).

feel it a necessary means to adequately compensate some or all of their personnel.

The decision to stretch out maximum compensation deductibility over ten years was made with the understanding that bonuses cannot be infinitely stretched out or else they lose their incentive effects.\textsuperscript{153} However, if what happened at AIGFP is any guide, where it was reported that five year clawbacks were in effect for 50\% of traders’ bonus compensation,\textsuperscript{154} perhaps ten years is a good starting point for discussion. As a byproduct of this approach, government tax revenues will increase if corporate governance finds significant resistance to lengthening out bonus awards. This will provide society with some direct compensation for the systemic risk created by a bonus culture that is resistant to change.

\textit{E. Supplemental Requirements}

To enhance the effectiveness of this tax policy approach, it is recommended that the following actions also be taken. First, the deferred bonus compensation cannot be an assignable interest. Permitting assignments would allow Wall Street employees to escape the purpose of the tax proposal by giving them the ability to receive cash up-front for the value of their deferred compensation, even if the amount of cash received has been significantly discounted in the process.\textsuperscript{155}

Second, in combination with the tax proposal, payouts of deferred bonuses shall not be permitted, and Wall Street employees shall correspondingly forfeit their bonuses at times when a firm’s performance measures indicate trouble. For example, something akin to the “brake provision” recently incorporated into Goldman Sachs’ Long-Term Performance Incentive Plan (the Plan).\textsuperscript{156} This provision terminates scheduled cash payouts under the Plan, when the firm “fails to maintain the required ‘Minimum Tier 1 Capital Ratio’ . . . for a period of 90 consecutive business days;” or when the Federal Reserve or the Federal Deposit Insurance Corporation (the FDIC) makes a written recommendation under the Dodd–Frank Act for the appointment of the FDIC as a receiver of firm.\textsuperscript{157}

A comprehensive brake provision on the payout of deferred bonuses is necessary because the strong negotiating position of Wall Street employees may allow them to negotiate guaranteed bonus packages that will allow for deferred payouts without regard to the financial health of their respective firms. Hopefully, this will also encourage horizontal or peer monitoring by Wall Street employees, perhaps something akin to a “spy culture,” where if team members feel that their peers are involved in risky behavior

\textsuperscript{153} See \textit{ supra} text accompanying notes 146–47 (explaining Tung’s criticism of Bhagat and Romano’s proposal).

\textsuperscript{154} See \textit{ supra} text accompanying notes 5–9 and 47–49 (discussing the use of unsustainable business models in the financial sector).

\textsuperscript{155} A special thanks to Professor J.W. Verret for pointing out the assignment issue when I presented this essay at the Midwestern Law and Economics Association annual meeting (2010). \textit{See also} Tung, \textit{ supra} note 122, at 4 n.13 (Tung noted in a similar manner that executives cannot be allowed to hedge against his pay proposal or else it would defeat the purpose of the proposal’s intended incentive structure).


\textsuperscript{157} \textit{Id.} at 4.
that may ultimately jeopardize their own bonus compensation, they may be much more willing to speak up and report to their risk managers and superiors their concerns about the transactions, trades and financial models in question.\textsuperscript{158}

Authority for both supplemental actions can be found under section 956 of the Dodd–Frank Act which deals with compensation at “covered financial institutions.”\textsuperscript{159} Under this section, regulators are given the authority to prohibit incentive-based compensation that encourages inappropriate risk-taking by executive officers, employees, directors or principal shareholders at “covered financial institutions.”\textsuperscript{160} The definition for “covered financial institution” is very comprehensive, as it includes banks, thrifts and their holding companies, as well as credit unions, registered broker-dealers, investment advisers, Fannie Mae, Freddie Mac, and any other institution that regulators feel should come under the definition.\textsuperscript{161}

\section*{VIII. CONCLUSION}

The financial sector has a natural tendency to create systemic risk as financial innovation will often lead to the use of unsustainable business models. Unfortunately, forcing the financial sector to try to internalize the full cost of systemic risk is impossible as this may lead to a freezing up of the sector. Also, there is no practical way to allocate the cost of systemic risk to firms with Wall Street employees. If so, then there are limitations to what policy makers and regulators can really do about the systemic risk created by the financial sector.

Given these constraints, systemic risk can still be attacked by looking backwards and using history to make sure that business models that are known to be both unsustainable and the source of critical nodes of systemic risk are not critical nodes in the future. This is the approach taken in the Dodd–Frank Act, most notably in the area of derivatives. However, a forward-looking approach can also be taken by addressing the issue of whether or not Wall Street employees are overinvesting in unsustainable business models and in doing so creating unnecessary nodes of systemic risk. This source of systemic risk is what policy makers and regulators should also be concerned with.

To implement this additional approach to systemic risk management, policy makers and regulators must focus on and regulate practices that encourage financial sector participants to be indifferent to the use of unsustainable business models. One possible practice originates from the large, front-loaded bonus arrangements provided Wall Street employees. Even though shareholders, creditors, executive management, Wall Street employees, and other stakeholders that contract with the firm must find front-loaded bonus compensation arrangements beneficial or else they would not have allowed them to become the accepted norm, these arrangements provide incentives for employees to focus on maximizing their personal short-term returns at the expense of their employers’ long-term interests.

\begin{thebibliography}{1}
\bibitem{158} Prior to 2007, it was reported that such a “spy culture” existed at Merrill Lynch, allowing the firm to keep control of some of its risks. \textit{Bethany McLean \& Joe Nocera, All the Devils Are Here} 237 (2010). THAT culture disappeared when personnel changes occurred at the firm. \textit{Id.}
\bibitem{160} \textit{Id.}
\bibitem{161} \textit{Id.} § 956(c)(2).
\end{thebibliography}
To remedy this situation, this Article recommends limiting the tax deductibility of financial sector compensation at the entity level, similar to Internal Revenue Code section 162(m), but with a much greater reach, as it would apply to all Wall Street employees who work for financial sector firms and it would not allow for performance based exceptions to the deductibility limit. To enhance the effectiveness of this tax policy approach, it is recommended that the deferred bonus compensation not be an assignable interest. Permitting assignments would allow Wall Street employees to escape the purpose of the tax proposal by giving them the ability to receive cash up-front for the value of their deferred compensation. In addition, payouts of deferred bonuses shall not be permitted and Wall Street employees shall correspondingly forfeit their bonuses at times when a firm’s performance measures indicate there is a threat to the financial health of the employees’ respective institutions. This is necessary because the strong negotiating position of Wall Street employees may allow them to negotiate guaranteed bonus packages that will allow for deferred payouts no matter the financial health of their respective firms.