

Henry T. C. Hu, *Financial Innovation and Governance Mechanisms: The Evolution of Decoupling and Transparency*, 70 **Business Lawyer** 347-405 (Spring 2015), available at <http://ssrn.com/abstract=2588052>

Financial Innovation and Governance Mechanisms: The Evolution of Decoupling and Transparency

By Henry T. C. Hu*

Financial innovation has fundamental implications for the key substantive and information-based mechanisms of corporate governance. “Decoupling” undermines classic understandings of the allocation of voting rights among shareholders (via, e.g., “empty voting”), the control rights of debtholders (via, e.g., “empty crediting” and “hidden interests”/“hidden non-interests”), and of takeover practices (via, e.g., “morphable ownership” to avoid section 13(d) disclosure and to avoid triggering certain poison pills). Stock-based compensation, the monitoring of managerial performance, the market for corporate control, and other governance mechanisms dependent on a robust informational predicate and market efficiency are undermined by the transparency challenges posed by financial innovation. The basic approach to information that the SEC has always used—the “descriptive mode,” which relies on “intermediary depictions” of objective reality—is manifestly insufficient to capture highly complex objective realities, such as the realities of major banks heavily involved with derivatives. Ironically, the primary governmental response to such transparency challenges—a new system for public disclosure that became effective in 2013, the first since the establishment of the SEC—also creates difficulties. This new parallel public disclosure system, developed by bank regulators and applicable to major

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financial institutions, is not directed primarily at the familiar transparency ends of investor protection and market efficiency.

As starting points, this Article offers brief overviews of: (1) the analytical framework developed in 2006–2008 for “decoupling” and its calls for reform; and (2) the analytical framework developed in 2012–2014 reconceptualizing “information” in terms of three “modes” and addressing the two parallel disclosure universes.

As to decoupling, the Article proceeds to analyze some key post-2008 developments (including the status of efforts at reform) and the road ahead. A detailed analysis is offered as to the landmark December 2012 TELUS opinion in the Supreme Court of British Columbia, involving perhaps the most complicated public example of decoupling to date. The Article discusses recent actions on the part of the Delaware judiciary and legislature, the European Union, and bankruptcy courts—and the pressing need for more action by the SEC. At the time the debt decoupling research was introduced, available evidence as to the phenomenon’s significance was limited. This Article helps address that gap.

As to information, the Article begins by outlining the calls for reform associated with the 2012–2014 analytical framework. With revolutionary advances in computer- and web-related technologies, regulators need no longer rely almost exclusively on the descriptive mode rooted in intermediary depictions. Regulators must also begin to systematically deploy the “transfer mode” rooted in “pure information” and the “hybrid mode” rooted in “moderately pure information.” The Article then shows some of the key ways that the new analytical framework can contribute to the SEC’s comprehensive and long-needed new initiative to address “disclosure effectiveness,” including in “depiction-difficult” contexts completely unrelated to financial innovation (e.g., pension disclosures and high technology companies). The Article concludes with a concise version of the analytical framework’s thesis that the new morphology of public information—consisting of two parallel regulatory universes with divergent ends and means—is unsustainable in the long run and involve certain matters that need statutory resolution. However, certain steps involving coordinating among the SEC, the Federal Reserve, and others can be taken in the interim.

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You can observe a lot by watching.
—Yogi Berra

INTRODUCTION

Financial innovation as we know it—the new financial products themselves and the process through which they are invented, introduced, and diffused—is only a generation old. Yet financial innovation is now critical to markets and economies. The first over-the-counter (OTC) derivative product, the currency swap, appeared around 1976.¹ The first model to value derivatives appeared in 1973, sparking a new, model-based process for the creation, pricing, and hedging of a continuing flow of new financial products.² With financial innovation, risk and cash flows could be reconfigured, sliced, and transferred in ways precisely calibrated to the hedging, investing, and speculative needs of market participants. The promise has proven irresistible. Today, the market for OTC derivatives products stands at roughly \$700 trillion notional,³ and model-based processes inform not only the analysis of new financial products but also the risk assessments used by both financial and non-financial entities.

Financial innovation also has a dark side, including the challenges it can pose to financial stability. These challenges, however, were not widely appreciated for many years, much less responded to.⁴ The near-collapse of the world financial system in 2008 concentrated minds wonderfully. Among other things, the Dodd-Frank Act of 2010,⁵ the most important piece of financial legislation since the 1930s, brought OTC derivatives into the regulatory fold and took a few steps to address asset-backed securities (ABS). Implementation of Dodd-Frank continues, even as the statute itself is modified.⁶

The potential for transforming risk and cash flows and the challenges posed to financial stability largely frame the conventional analysis for how governments

1. Henry T. C. Hu, *Swaps, the Modern Process of Financial Innovation, and the Vulnerability of a Regulatory Paradigm*, 138 U. PA. L. REV. 333, 363 (1989) [hereinafter Hu, *Basel I Vulnerability*]; Merton H. Miller, *Financial Innovation: Achievements and Prospects*, J. APPLIED CORP. FIN., Winter 1992, at 4, 6 n.6.

2. Henry T. C. Hu, *Misunderstood Derivatives: The Causes of Informational Failure and the Promise of Regulatory Incrementalism*, 102 YALE L.J. 1457, 1470–76 (1993) [hereinafter Hu, *Misunderstood Derivatives*].

3. BANK FOR INT'L SETTLEMENTS, *OTC DERIVATIVES STATISTICS AT END-JUNE 2014*, at 1 (Nov. 2014).

4. See, e.g., Floyd Norris, *When Regulators Are Blind to Rules*, N.Y. TIMES, Dec. 19, 2014, at C1.

5. Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, 124 Stat. 1376 (2010) [hereinafter Dodd-Frank Act].

6. See, e.g., Dan Ryan, *Key Points from Congress's Roll-Back of the Swaps Push-Out*, HARV. L. SCH. FORUM ON CORP. GOV. & FIN. REG. (Jan. 11, 2015, 9:00 AM), <http://blogs.law.harvard.edu/corpgov/2015/01/11/key-points-from-congress-roll-back-of-the-swaps-push-out/>.

and markets should respond to financial innovation. This is understandable, given the enduring importance of this potential and these challenges.

Certain other transformations and challenges are at least as important for banking, bankruptcy, and corporate lawyers and academics; the Delaware judiciary and legislature; and the U.S. Securities and Exchange Commission (SEC). This Article focuses on one such transformation—the “decoupling” of rights and obligations of equity and debt—and one such challenge—the inability of the long-standing public disclosure system to capture highly complex realities, most notably those that can be created by financial innovation. This decoupling transformation and this informational challenge implicate some core mechanisms of corporate governance.

The transformation at issue with decoupling is not of risk or cash flows but of the “integrity” of equity and debt, the basic building blocks of the corporation. Foundational understandings of equity and debt assume that such building blocks consist of packages of rights and obligations that are generally “bundled” together. With the derivatives revolution and for other reasons, it is now possible for market participants to easily unbundle, or “decouple,” the associated elements of these packages. This decoupling has consequences for shareholder voting rights, creditor control rights, and the market for corporate control. In the extreme case of an “empty voter with negative economic ownership,” the shareholder may exercise its votes not to seek to maximize shareholder wealth but rather to destroy it. In the extreme case of an “empty creditor with negative economic ownership,” the creditor may exercise its control rights not to ensure that it is repaid, but instead to destroy its borrower. Decoupling involving “morphable ownership” can affect the market for corporate control by, among other things, allowing the financially adroit to avoid section 13(d) blockholder disclosure.

As to the impact of decoupling on governance mechanisms, I begin in Part I with a very summary overview of the analytical framework, the associated terminology (such as “empty voter,” “empty creditor,” and “hidden (morphable) ownership”), and the calls for reform introduced in three coordinated articles co-authored with Professor Bernard Black, which were published in 2006 and 2007⁷ and refined and extended in four sole- or co-authored works in 2007 and 2008.⁸

7. The “first generation” decoupling analytical framework was focused on equity decoupling and was set out in three related articles, beginning with an initial 2006 article directed at legal academics: Henry T. C. Hu & Bernard Black, *The New Vote Buying: Empty Voting and Hidden (Morphable) Ownership*, 79 S. CAL. L. REV. 811 (2006) [hereinafter Hu & Black, *Decoupling I (Law Review Version)*], available at <http://ssrn.com/abstract=904004>. The second article was directed at lawyers, judges, and regulators: Henry T. C. Hu & Bernard Black, *Empty Voting and Hidden (Morphable) Ownership: Taxonomy, Implications, and Reforms*, 61 BUS. LAW. 1011 (2006) [hereinafter Hu & Black, *Decoupling I (Lawyer Version)*], available at <http://ssrn.com/abstract=887183>. The third article was directed at finance academics, with expanded theoretical discussion: Henry T. C. Hu & Bernard Black, *Hedge Funds, Insiders, and the Decoupling of Economic and Voting Ownership: Empty Voting and Hidden (Morphable) Ownership*, 13 J. CORP. FIN. 343 (2007) [hereinafter Hu & Black, *Decoupling I (Finance Version)*], available at <http://ssrn.com/abstract=874098> (near-final version).

8. The “second generation” research refined the earlier equity decoupling analysis and extended the framework to debt and hybrid decoupling. The relationship among the second generation works is set out at *infra* notes 15–16. In sequence, they are Henry T. C. Hu, Shareholder and Creditor

I then briefly discuss in Parts II.A and B some key U.S. and non-U.S. developments and evidence pertaining to the impact of decoupling subsequent to 2008. These include actions on the part of the Delaware judiciary and legislature, the European Union, and bankruptcy courts—and the pressing need for more action by the SEC. I also show that in the post-2008 period, evidence has been mounting as to the impact of debt decoupling on governance mechanisms, including behavior involving high-profile corporate collapses during the global financial crisis. I conclude in Part II.C with a detailed analysis of the December 2012 British Columbia Supreme Court opinion in *TELUS Corporation*, a case involving the most complex public example of decoupling to date.⁹

The informational challenge that financial innovation poses to the long-standing public disclosure system runs deep. The system is manifestly insufficient to capture the complex objective realities that are now being created by financial innovation. This is not for want of trying: for example, SEC Form 10-K annual reports for too big to fail banks heavily involved in financial innovation typically run 300 to 400 pages, nearing what surely must be some kind of obesity limit.¹⁰ Yet many market participants and regulators believe that discerning the true risk-return characteristics of the banks from public disclosures is a daunting task, especially in respect of their derivatives and other financial innovation-related exposures.¹¹ This informational challenge undermines the panoply of transparency-dependent corporate governance mechanisms, including equity-based compensation systems to align management and shareholder interests, the market for corporate control, and the monitoring of management behavior and performance.

As to the informational challenge of financial innovation for such governance mechanisms, I draw on an analytical framework for “information” introduced in

Decoupling: Separating “Embedded Rights” and Contractual Rights from Economic Interests (Aug. 17, 2007) (draft manuscript on file with *The Business Lawyer*) [hereinafter Hu, *Shareholder and Creditor Decoupling*] (contribution to 10th Singapore Conference on International Business Law, Aug. 22–23, 2007, and associated conference volume); Henry T. C. Hu & Jay L. Westbrook, *Abolition of the Corporate Duty to Creditors*, 107 COLUM. L. REV. 1321, 1329, 1401–02 (2007) [hereinafter Hu & Westbrook, *Abolition of Duty to Creditors*], available at <http://ssrn.com/abstract=977582>; Henry T. C. Hu & Bernard Black, *Equity and Debt Decoupling and Empty Voting II: Importance and Extensions*, 156 U. PA. L. REV. 625 (2008) [hereinafter Hu & Black, *Decoupling II (Penn)*], available at <http://ssrn.com/abstract=1030721>; Henry T. C. Hu & Bernard Black, *Debt, Equity, and Hybrid Decoupling: Governance and Systemic Risk Implications*, 14 EUR. FIN. MGMT. 663 (2008) [hereinafter Hu & Black, *Decoupling II (EFM)*], available at <http://ssrn.com/abstract=1084075> (near-final version).

9. *TELUS Corporation (Re)*, 2012 BCSC 1919 (2012) [hereinafter *TELUS Opinion*].

10. Henry T. C. Hu, *Disclosure Universes and Modes of Information: Banks, Innovation, and Divergent Regulatory Quests*, 31 YALE J. ON REG. 565, 571–72 (2014) [hereinafter Hu, *Disclosure Universes and Modes of Information*], available at <http://ssrn.com/abstract=2442092>.

11. For instance, in December 2012, Paul Singer, a prominent hedge fund manager, was reported to have said that even with 110 investment professionals, he “cannot . . . understand the financial condition of any bank [or other] major financial institution” and that “[investment professionals] have no idea what that derivatives section means.” *“The Shape of the Next Crisis”: A Preview by Elliott’s Paul Singer*, ZEROHEDGE (Dec. 9, 2012, 4:00 PM), <http://www.zerohedge.com/news/2012-12-09/shape-next-crisis-preview-elliotts-paul-singer>; cf. James Freedman, *The Weekend Interview with Paul Singer: Mega-Banks and the Next Financial Crisis*, WALL ST. J. (Mar. 9, 2011, 12:01 AM), <http://www.wsj.com/articles/SB10001424052748703899704576204594093772576> (quoting Singer as stating that “[w]e have a very large analytical research effort here and we have not found anybody that can parse the sensitivity of big banks to changes in interest rates, asset prices, and the like”).

a 2012 article, *Too Complex to Depict?*¹² and refined and extended in a 2014 article, *Disclosure Universes and Modes of Information*.¹³ The framework conceptualizes that from its creation, the SEC has substantially relied on a single approach to information: a “descriptive mode” that uses “intermediary depictions” of objective reality (Figure 1). The framework shows that as a structural matter, this “mode of information” is insufficient to capture highly complex realities, including complex realities created by financial innovation. In the financial innovation context as well as in contexts far removed from the world of finance, the SEC could benefit from also systematically deploying new modes of information facilitated by revolutionary advances in computer and web technologies. The framework calls these modes the “transfer mode,” relying on “pure information” (Figure 2), and the “hybrid mode,” relying on “moderately pure information” (Figure 3). Indeed, a concept of “informational neutrality” across modes is needed, one in which full consideration is given to each of the three modes as a candidate for inclusion in a diversified regulatory portfolio.

Parts III.A to III.E center on four basic questions: (1) What is the SEC’s core “mode of information”? (2) Is this “descriptive mode” sufficient to capture the complex realities created by financial innovation? (3) If this descriptive mode is insufficient, what can be done? And (4) What are a few of the implications for the “disclosure effectiveness” project the SEC initiated in April 2014? As to question (2), I rely in part on the 2012 JPMorgan Chase Chief Investment Office credit derivatives debacle to illustrate the two central roadblocks.

A recent development discussed in Part III.F significantly complicates the road ahead in this SEC disclosure universe and, in an important context, undermines some of the classic understandings of the ends and means of public disclosure. In 2013, a new system for public disclosure became effective, the first since the creation of the SEC in 1934. Today, major banks and certain other entities must make public disclosures mandated not only by the SEC but also by a new system developed by the Federal Reserve Board and other bank regulators. Already, this parallel system, which stemmed in large part from a belief that public disclosures of the complex risks flowing from modern financial innovation were profoundly inadequate, dwarfs the SEC system in the sophistication of its treatment of the quantitative aspects of market risk and the impact of economic stress. In the bank context, the overall morphology of public information has changed in elemental ways, spanning two parallel regulatory universes with strikingly divergent ends and means. Important practical and theoretical questions arise, some that can be partially resolved through coordination among regulators and others that need statutory resolution.

12. Henry T. C. Hu, *Too Complex to Depict? Innovation, “Pure Information,” and the SEC Disclosure Paradigm*, 90 TEX. L. REV. 1601 (2012) [hereinafter Hu, *Too Complex to Depict?*], available at <http://ssrn.com/abstract=2083708>.

13. Hu, *Disclosure Universes and Modes of Information*, *supra* note 10.

I. DECOUPLING AND GOVERNANCE MECHANISMS: THE ANALYTICAL FRAMEWORK AND TERMINOLOGY

A. OVERVIEW

The concept of “decoupling” and its associated analytical framework and terminology were introduced in the equity context in three coordinated 2006–2007 articles¹⁴ and refined in a 2008 article (*Decoupling II (Penn)*).¹⁵ The decoupling framework and terminology were extended to the debt context in articles in 2007 and 2008, culminating in a 2008 article focusing on debt and “hybrid” decoupling (*Decoupling II (EFM)*).¹⁶

Classic understandings of “equity” and “debt” are straightforward. Ownership of equity generally conveys a package of economic rights, voting rights, and other rights—and disclosure and other obligations. For instance, a shareholder in a public corporation may be entitled to dividends and a right to vote, and, if its holdings are large enough, be obligated to disclose its stake. Similarly, ownership of debt conveys a package of rights and obligations. A debt holder typically has economic rights given by contract (such as the principal and interest specified in the loan agreement or bond indenture), the control rights given by contract (such as by way of covenants and the rights to enforce, waive, and modify them), and other legal rights (including those flowing from corporate and securities laws). Moreover, if the corporation files for bankruptcy, the debt holder has those rights as substantially modified by federal bankruptcy law.

These classic understandings of “equity” and “debt” assume that the elements of these packages of rights and obligations are generally “bundled” together. With equity, the shareholder’s voting rights, for instance, are linked to the shareholder’s economic interest in the corporation, as is the case with the familiar “one share-one vote” pattern. With debt, the debt holder’s contractual control rights are linked to the debt holder’s economic rights to interest and principal.

These foundational understandings no longer hold. Today, through the use of derivatives and other means, equity holders and debt holders can, if they wish to, easily separate components of those packages, often on a massive scale, and in secret. Within the analytical framework, the term “**decoupling**” was coined to refer to this separation. Notwithstanding this new reality, the long-standing legal and regulatory architecture and economic theories relating to governance (e.g., shareholder voting rights, creditor control rights outside and in bankruptcy, and disclosure rules mediating takeover battles (such as section 13(d) requirements)) as well as business and contracting practices are generally predicated on an immutable link between control rights and this economic interest.

14. See *supra* note 7.

15. Hu & Black, *Decoupling II (Penn)*, *supra* note 8.

16. In 2007, the term “empty creditor” was coined in Hu, *Shareholder and Creditor Decoupling*, *supra* note 8. This was followed by debt decoupling discussions in both Hu & Westbrook, *Abolition of Duty to Creditors*, *supra* note 8, at 1329, 1401–02, and Hu & Black, *Decoupling II (Penn)*, *supra* note 8, at 728–35. These 2007–2008 works led to the more systematic incorporation of debt decoupling and “hybrid” decoupling in the analytical framework for decoupling in Hu & Black, *Decoupling II (EFM)*, *supra* note 8.

Decoupling operates differently in the equity and debt contexts and affects governance mechanisms in different ways. Because of the analytical framework's equity origins and because decoupling of equity is less complex than that of debt, I start by focusing on equity decoupling.

B. EQUITY DECOUPLING: EMPTY VOTERS, EMPTY VOTERS WITH NEGATIVE ECONOMIC OWNERSHIP, MORPHABLE OWNERSHIP, AND HIDDEN (MORPHABLE) OWNERSHIP

One major equity decoupling strategy—“**empty voting**”—involves persons obtaining voting rights greater than their economic interest. Another major equity decoupling strategy—“**morphable ownership**”—essentially involves the converse: persons obtaining economic interest greater than their (formal) voting rights but effectively having the ability to “morph” that economic-only stake to outright ownership of shares at any time. Empty voting centers on *substantive* voting rights. Morphable ownership centers on the market for corporate control and the application of blockholder *disclosure* rules in that market and the application of poison pills intended to protect incumbent management. Many other equity decoupling strategies also exist, including decouplings of other shareholder rights and obligations.¹⁷ Here, I will focus solely on empty voting and morphable ownership. A compilation of nearly 100 real-world examples of equity and related decoupling, their strategies, and the means used is set out in *Decoupling II (EFM)*.¹⁸

With limited exceptions, the rules governing public corporations assume that ownership of shares is a meaningful concept and conveys a standard package of shareholder rights (“**full ownership**”). Some of these rights are economic (e.g., dividend, liquidation, and appraisal rights), while some are less directly economic, such as voting rights, director fiduciary duties, and inspection rights. Over the course of the last century, the assumption that most shareholders held full ownership mostly worked. The derivatives revolution, the emergence of sophisticated, lightly regulated hedge funds, and related growth in the share lending market now make it easy to decouple, for instance, voting rights from economic ownership¹⁹ and to further decompose economic ownership such as by separating dividend rights from other economic rights.

Because of the wide variety of ways in which equity decoupling can occur, it is useful to summarize its functional elements and specify some terminology. “**Formal voting rights**” refers to the *legal* right to vote shares, including the power to instruct someone else how to vote. “**Voting rights**” or “**voting ownership**” of shares refers to either formal or informal rights to vote shares, including the informal power to instruct someone else how to vote or obtain formal voting rights. The company at which voting takes place is the “**host company**.” “**Economic ownership**” refers to the economic returns associated with shares. This

17. See Hu & Black, *Decoupling II (EFM)*, *supra* note 8, at 666, 677–78.

18. See *id.* at 698–709 (“Appendix—Equity and Hybrid Decoupling Examples”).

19. Although this Article focuses on the decoupling of voting rights from economic rights, unbundling other aspects of ownership has also occurred. *Id.* at 677–78.

ownership can be achieved directly by holding shares or indirectly by holding a “**coupled asset**,” which conveys returns that relate directly to those shares.

Decoupling often depends on combining full ownership of shares with ownership of a “**coupled asset**.” “**Coupled assets**” include derivatives (such as options, futures, and equity swaps), contractual rights (such as rights under a share loan agreement), and other financial products and arrangements. “**Net economic ownership**” is defined as a person’s combined economic ownership of host company shares and coupled assets. This net ownership can be **positive** (the same direction as the return on shares), **negative** (the opposite direction from the return on shares), or **zero**. Someone who owns voting shares has “**full ownership**” and has all the rights and obligations associated with shares, including voting rights and economic rights.

“**Empty voters**” are any persons whose voting rights substantially exceed their net economic ownership. For instance, consider a hedge fund that buys 1,000,000 shares and thus has 1,000,000 votes. Simultaneously, the fund buys put options or a short equity swap position. That fund still has 1,000,000 votes, but because of the coupled asset (i.e., the put options or the short equity swap position), the fund may have the economic equivalent of, say, only 200,000 shares. This type of voter can be called an “empty voter,” as the votes have been emptied of a corresponding economic interest.

Instead of relying on put options, equity swaps, or some other derivative such as the coupled asset, an empty voter may rely on certain contractual arrangements. For instance, the “record date capture” strategy relies on borrowing shares in the stock lending market just before the record date and returning the shares immediately afterward. Under standard stock lending arrangements, the borrower has no economic exposure to the company, but because the borrower is the legal owner of the shares, the borrower has all of the voting rights associated with the shares. The borrower holds votes without economic ownership, while the lender has economic ownership without votes. Company insiders and even companies themselves, not just third parties such as hedge funds, have used a variety of coupled assets to engage in empty voting.²⁰

Sometimes, instead of holding “coupled assets” (i.e., the put options, short equity positions, and stock borrowings just referred to), investors may hold “**related non-host assets**,” such as securities of another company whose value is related to the value of the host company’s shares. For instance, if the host company is planning to acquire a target in a share-for-share merger with a fixed exchange ratio, the target’s shares are a related non-host asset. The definition of “**overall economic interest**” is broader than that of “net economic ownership”: the combined return from host shares, coupled assets, and related non-host assets produces an “overall economic interest” in taking actions that affect firm value, which can be positive, zero, or negative.

20. See Hu & Black, *Decoupling I (Law Review Version)*, *supra* note 7, at 831–32; Hu & Black, *Decoupling II (Penn)*, *supra* note 8, at 642–52, 688–92, 694–95, 706–07; Hu & Black, *Decoupling II (EFM)*, *supra* note 8, at 674–75.

As defined, empty voting includes some long-standing arrangements for concentrating voting power. These arrangements include dual-class capital structures, with one class holding greater voting power relative to economic rights and pyramids, which concentrate effective voting control in the hands of the person, family, or group at the top of the pyramid.

In a manner of speaking, empty voting may run counter to the general spirit of the voting mechanism established by charter at most corporations. The standard “one share-one vote” pattern involves proportionality between economic rights and voting rights, and existing and potential shareholders buying shares in such companies normally presume that such proportionality is applicable to everyone. Empty voting effectively involves a shareholder’s electing on its own to choose to depart from the charter’s mechanism and general shareholder presumptions. This type of “vote buying,” especially if it occurs in secret and on a massive scale, might arguably raise concerns about fairness and legitimacy.

However, with one extremely important exception, from a purely instrumental standpoint, the question of whether empty voting, on balance, furthers or detracts from good corporate governance is not entirely clear in the abstract and, instead, may well depend on the particular circumstances. For instance, one of the instrumental arguments *in favor of* empty voting is that the practice may help outsiders overcome the usual collective action problems in challenging incompetent or self-serving incumbent management. I refer to the analyses of the pluses and minuses of empty voting in general in the 2006–2008 articles.²¹

The important exception is when the empty voter has engaged in so much decoupling that it has *negative* economic ownership. In our numerical example of the empty voter, we assumed the hedge fund owned 1,000,000 shares, but because of the fund’s coupled asset (i.e., the put options or the short equity swap position), the fund may have the economic equivalent of only 200,000 shares. In such a situation, the hedge fund certainly has disproportionate voting power. But the hedge fund still has positive economic ownership (i.e., to the extent of 200,000 shares), and so the fund, like shareholders generally, would like to see the share price increase and, therefore, has incentives to vote in favor of directors or proposals that it believes would serve this goal.

However, what if the hedge fund bought so many put options or had such a large short equity swap position that it actually had a *negative* economic ownership in the company? That is, this extreme type of empty voter would actually benefit if the share price decreased. In such a case, the hedge fund would seek to vote in favor of proposals or directors it believed would be harmful to the share price. The voting mechanism, rather than being a device to help enable shareholders to monitor management and undertake other actions to *maximize* stockholder wealth, would be used to *minimize* it.

21. See Hu & Black, *Decoupling I (Law Review Version)*, *supra* note 7, at 850–64; Hu & Black, *Decoupling I (Finance)*, *supra* note 7, at 353–59; Hu & Black, *Decoupling II (Penn)*, *supra* note 8, at 697–707; Hu & Black, *Decoupling II (EFM)*, *supra* note 8, at 667–72.

With morphable ownership, the decoupling is structured to try to avoid the effects of certain statutorily or company-based mandates related to the market for corporate control. For example, a strategy involving the converse of empty voting—achieving (formal) voting ownership *lower* than economic ownership, while in fact being able to morph into full ownership at any time—may allow the avoidance of section 13(d) blockholder disclosure rules. This use of morphable ownership does not seek to deviate from the normal allocation of substantive *voting rights* but instead tries to game shareholder *disclosure* obligations, which are often triggered in connection with takeover battles.

As another example, many companies adopt poison pills to deter challenges to incumbent management, which may be triggered by an outsider's acquiring an ownership stake beyond a certain threshold. Unless the company's poison pill arrangements explicitly include morphable ownership stakes, the outsider may be able to avoid triggering the pill. I will discuss the practice now widespread among Delaware companies of explicitly addressing such synthetic ownership in poison pills in Part II.A.1.

Here, I will focus largely on the use of morphable ownership to avoid section 13(d) disclosure. The United States and many other countries require persons who acquire large positions in the shares of a corporation to disclose their stakes. Such acquisitions are often a prelude to a takeover attempt, and investors are deemed as needing to be alerted to the possibility of a change in control.

Traditionally, these disclosure rules often depended on the possession of voting rights beyond specified thresholds. For example, in the United States, the SEC required that a 5 percent (voting ownership) shareholder of a class of equity security registered under the Exchange Act to file a Schedule 13D or 13G.²² Holdings of physically settled equity derivatives clearly count toward the 13D/13G threshold, but some market participants took the position that holdings of cash-settled equity derivatives do not. As a formal matter, holders of the long side of cash-settled equity derivatives did not have any voting rights; the holders were essentially entitled only to the capital gains/losses and dividends associated with the shares. Under such a view, their economic-only ownership would not count toward triggering the 13D/13G disclosure requirements.

This led to a simple decoupling-based avoidance strategy. An investor can hold economic-only ownership through cash-settled equity swaps. This ownership is

22. The basic regulatory architecture for Schedules 13D and 13G is as follows, apart from impact of certain changes mandated by section 766 of the Dodd-Frank Act discussed at *infra* note 53. Any person who "directly or indirectly" acquires "beneficial ownership" of more than 5 percent of a public company's shares must file a Schedule 13D with the SEC within ten days after crossing the 5 percent threshold. Exchange Act Rule 13d-1(a), 17 C.F.R. § 240.13d-1(a) (2014). Certain types of institutional investors who invest "passively" and meet certain other conditions can instead file a more abbreviated Schedule 13G (generally on February 15 of each year). Exchange Act Rule 13d-1(b), 17 C.F.R. § 13d-1(b) (2014). Disclosure is based on "beneficial ownership" of shares, as defined by Rule 13d-3. The focus is on sole or shared voting or investment power, which can be held "directly or indirectly, through any contract, arrangement, understanding, relationship, or otherwise." Exchange Act Rule 13d-3(a), 17 C.F.R. § 13d-3(a) (2014). The SEC discourages gaming by providing that any person who uses any "contract, arrangement, or device" to evade these reporting requirements is also deemed to be a beneficial owner. Exchange Act Rule 13d-3(b), 17 C.F.R. § 13d-3(b) (2014).

“hidden” in that, arguably, it is not disclosable. However, this economic-only ownership is sometimes “**morphable**.” That is, although the investor holds only these swaps, not shares, and thus has no formal voting rights, the investor may be able to acquire the voting rights when needed, for instance, by simultaneously terminating the swaps and, if the swap dealer is willing, buying from the dealer the “matched shares” that its swap dealer had been holding to hedge those equity swaps.

Speaking very loosely, this strategy involves an investor’s “soft parking” shares with an accommodating derivatives dealer, receiving the economic rights of share ownership, and asserting that it does not have the voting rights of the parked shares. Investors in a number of countries, including the United States, have tried to use this “**hidden (morphable) ownership**” strategy.

Precise, highly granular information about one implementation of the hidden (morphable) strategy is set out in the first (and only) U.S. judicial ruling on hidden (morphable) ownership, the June 11, 2008, Southern District of New York opinion in *CSX Corp. v. Children’s Investment Fund Management (UK) LLP*.²³ The court was faced with two hedge funds using the strategy to avoid section 13(d) disclosure of their large synthetic stakes in CSX Corporation. In an opinion exhaustively discussing the details of the funds’ strategy and relying in part on the decoupling analytical framework, the court found the funds violated section 13(d).²⁴ The case was appealed. Some three years later, a divided panel of the Second Circuit finally rendered its opinion but declined to reach the hidden (morphable) ownership issue at the heart of the case and remanded on other grounds.²⁵

Decoupling I (Law Review Version) and *Decoupling II (Penn)* suggested a variety of responses to empty voting and hidden (morphable) ownership.²⁶ Disclosure reform relating to both phenomena is an essential first step. Examining five discrete ownership disclosure systems in the United States, the articles showed that with regard to equity decoupling, the rules treat economically similar positions differently both within and across disclosure regimes, allow much empty voting to remain undisclosed, allow much economic-only ownership to remain hidden, provide little or no disclosure of share lending, and do not directly address corporate decoupling.

The articles advanced an “integrated ownership disclosure” proposal that would provide improved public disclosure of both empty voting and hidden ownership while streamlining the current ownership disclosure rules. One component of the proposal was to require disclosure not only of voting ownership but also of economic ownership, irrespective of whether either type of ownership arose from shares or coupled assets. This component would directly

23. 562 F. Supp. 2d 511 (S.D.N.Y. 2008). The author was engaged in this matter by Cravath, Swaine & Moore, counsel for CSX Corporation, to among other things, offer views to the SEC on what advice the SEC should give to the court.

24. As to the use of the analytical framework, see *id.* at 522, 542, 547, 573.

25. See *CSX Corp. v. Children’s Inv. Fund Mgmt. LLP*, 654 F.3d 276 (2d Cir. 2011). I discuss the current legal status of hidden (morphable) ownership in Part II.A.2.

26. Hu & Black, *Decoupling I (Law Review Version)*, *supra* note 7, at 875–906; Hu & Black, *Decoupling II (Penn)*, *supra* note 8, at 680–721. The call for disclosure reform was extended to debt and hybrid decoupling in Hu & Black, *Decoupling II (EFM)*, *supra* note 8, at 684, 689–90, 693.

preclude the hidden (morphable) ownership strategy. In terms of disclosure reforms related to empty voting, the proposal contemplated such changes as the symmetric disclosure of positive and negative economic ownership, reporting of share lending and borrowing positions, and reporting of significant instances of empty voting above a threshold percentage of the company's shares.

Decoupling I (Law Review Version) also focused on three families of strategy beyond disclosure reform: (1) one focusing on voting rights, (2) one focusing on supply and demand forces relating to equity decoupling, and (3) one focusing on the mechanics of shareholder voting. *Decoupling II (Penn)* refined and extended the proposal and, in light of subsequent developments, took a more vigorous approach. For instance, *Decoupling II (Penn)* emphasized that courts should use their equitable power to bar voting by empty voters with negative economic ownership under specified circumstances, even in the absence of a legislative response.²⁷

C. DEBT AND HYBRID DECOUPLING: EMPTY CREDITORS, EMPTY CREDITORS WITH NEGATIVE ECONOMIC EXPOSURE, AND HIDDEN INTERESTS/HIDDEN NON-INTERESTS

For corporations that are in or near financial distress, decoupling associated with debt, not equity, raises the most significant issues. In the interests of brevity, this Article's overview of debt decoupling considers only the context of single-company borrowers. *Decoupling II (EFM)* extended the analysis to decoupling in the multi-borrower context (e.g., securitizations) and showed that decoupling in this context would inhibit loan modifications and contribute to systemic risk.²⁸ This Article also leaves aside decoupling in the context of sovereign debt.²⁹

The decoupling analysis as to debt is more complex than that as to equity. One major reason is that the analysis must consider decoupling when the corporation is subject to two alternative, radically different governance regimes: (1) when a corporation is not in bankruptcy (and thus subject to the normal, state substantive law-centered governance system) and (2) when a corporation is in bankruptcy (and thus subject to the federal bankruptcy governance system). With decoupling of equity, only corporations subject to the normal state law-centered system generally need to be considered: if a corporation is in bankruptcy, equity holders are usually largely out of the picture.

That is, both “**empty crediting**” and “**hidden non-interest**”/“**hidden interest**” issues—debt decoupling's analogs to equity decoupling's “empty voting” and

27. Hu & Black, *Decoupling II (Penn)*, *supra* note 8, at 701–03.

28. Hu & Black, *Decoupling II (EFM)*, *supra* note 8, at 686–88, 690–93.

29. See, e.g., Camila Russo, *Singer Denial Failing to Quell Win-Win Charge: Argentina Credit*, BLOOMBERG (Apr. 11, 2013), <http://www.bloomberg.com/news/articles/2013-04-11/singer-denial-failing-to- quell-win-win-charge-argentina-credit> (Argentina's claim that a hedge fund's aggressive creditor behavior was motivated by the fund's creditor swap position); cf. Peter Coy, *The Cost of Credit Swaps when a Nation Defaults*, BLOOMBERG (July 11, 2011), <http://www.bloomberg.com/bw/magazine/the-cost-of-credit-swaps-when-a-nation-defaults-07212011.html> (on empty creditors with negative economic exposure in the context of sovereign debt).

“hidden (morphable) ownership” issues—occur with respect to corporations that are not bankrupt and with respect to corporations that are in bankruptcy. The manifold interactions of creditors and firms (or other debtors)—what *Decoupling II* (EFM) termed “**debt governance**”—are now perhaps less efficient and certainly more complex with the presence of more and often hidden parties (including contingent creditors such as credit default swap protection sellers) and unfamiliar incentive patterns.³⁰

For instance, *for corporations not in bankruptcy*, an empty creditor with negative economic ownership has an incentive structure quite different from that of a traditional creditor. This extreme category of empty creditor will have an incentive to see the corporate borrower file for bankruptcy (roughly comparable to incentives that an empty voter with negative economic ownership will have to see the share price fall).

An example of this would be when a creditor has decoupled by means of buying huge amounts of credit default swap (CDS) protection relative to the debt it holds. This would be the case if a creditor extended a \$10,000,000 loan to a company but bought CDS protection to the tune of \$50,000,000. The creditor may actually benefit from the company’s filing for bankruptcy. That is, the payoff from the creditor’s CDS position on the bankruptcy filing may well exceed any loss the creditor suffers on its loan position.

Subject to reputational or other concerns, this extreme category of empty creditors would have incentives to use contractual control rights not to protect the value of debt holdings but, instead, to the extent legally and contractually permissible, to help grease the skids to bankruptcy. Traditional creditors often grant waivers for breaches to the loan agreement, agree to out-of-court restructurings, and otherwise work with a troubled borrower in circumstances where such actions and monitoring make sense for both the creditors and their borrowers. An empty creditor with a negative economic interest would have far less incentive to engage in such actions or monitoring.

Even a creditor that does not have negative economic ownership may have little incentive to waive defaults, participate in out-of-court restructurings, or monitor the debtor. For instance, an empty creditor with merely zero economic ownership would be indifferent to whether the company survives. Except to the extent constrained by reputational or other concerns, why should such a creditor expend much time and energy working with the borrower, monitoring the borrower and any collateral the borrower had put up, and so forth?

The foregoing example of debt decoupling involved a creditor using CDSs as the “coupled asset.” A creditor also can hedge through other host company-specific derivatives, including “total return swaps” and options to buy credit default or total return swaps. In addition, the coupled assets used to achieve debt decoupling need not involve derivatives at all. For instance, many public companies have multiple classes of tradable debt. A creditor’s long position in class A may be offset by its short interest in class B or C. Decoupling also can

30. See Hu & Black, *Decoupling II* (EFM), *supra* note 8, at 681.

be achieved using **related non-host assets**: for instance, a creditor can hold long or short positions in the shares or debt of the company's competitors.

Thus far, the discussion has treated equity decoupling and debt decoupling separately. Nevertheless, they can be readily combined, a pattern that the decoupling framework calls "**hybrid decoupling**." For instance, creditors can hedge exposure to a company going bankrupt by buying put options on the company's shares or by taking a short equity swap position.

"**Hidden non-interest**" (and "**hidden interest**") issues arise, perhaps undermining the efficiency of debt governance. If a creditor has decoupled and the debtor (or the financial market generally) is unaware of this, that creditor has a "**hidden non-interest**": the creditor does not have the economic interest that the debtor and others think it has. This applies to all empty creditors, not just those with negative economic ownership. Other parties that have taken the other side of decoupling transactions (i.e., the protection sellers) may now have some of the original rights and obligations. If the debtor (or the financial market generally) is unaware of this, these other parties (that are also creditors, albeit contingent creditors) have "**hidden interests**."

In any bargaining, the debtor may not realize the formal creditor's true incentives, and the decoupling may have parceled the associated control and economic rights to other parties in ways that make negotiations with the debtor cumbersome. This reduced efficiency in debt governance may, among other things, limit the speed and flexibility needed to avoid troubled debtors being forced to file for bankruptcy, even when avoiding bankruptcy may be in the interests of debtor and creditors.

Also, at the precise time that efficiency in debt governance becomes paramount—a troubled corporation trying to avoid a bankruptcy filing—hidden interest/hidden non-interest issues become especially manifest. This is because debt decoupling activity could be expected to increase as a corporation faces imminent disaster. Existing creditors may buy more hedges to protect their debt exposure, and new creditors, such as those that specialize in distressed investing, may acquire debt stakes and themselves may decouple.

And to the extent that the borrower is not aware that its formal creditor has little or even negative economic interest in its survival, the quality and efficiency of the negotiations between the borrower and this creditor will be undermined. The derivatives dealer that provided the CDS protection, as a contingent creditor of the borrower, is, in effect, the real party in interest. However, absent special provisions between the formal creditor and its derivatives dealer relating to control rights, the dealer is not at the table. The person who does have the control rights would rather not even be at the table and, reputational and other concerns aside, may actually want his debtor to file for bankruptcy even when doing so might not make sense.

Even if the borrower is aware of the decoupling status of its formal creditor, novel complications in debt governance can arise. The CDS seller is exposed to the credit risk of the company: if the company goes bankrupt, the seller has to pay up. As discussed in *Decoupling II (EFM)*, the sellers of CDS protection have

taken steps to reduce the chances of having to do so.³¹ CDS protection sellers, as contingent creditors, are an integral aspect of debt governance. Sometimes, CDS sellers may go even further, for example, by actually directly lending money to the company, thereby also having the role of formal creditors. A 2014 example involving RadioShack is discussed in Part II.B.

For corporations that are already in bankruptcy, debt decoupling operates differently. Long-standing bankruptcy rules essentially assume that the amount of debt a creditor holds represents its true economic stake and that the creditor's voting rights in the confirmation of reorganization plans should thus be proportional to this amount. Until very recently (when Federal Rule of Bankruptcy Procedure 2019 was amended), the bankruptcy court may not have even been aware when certain key parties were empty creditors.³² Not being aware of these hidden non-interests, bankruptcy judges were not in a position to respond. The debt decoupling framework showed how "hidden *non-interests*" would undermine the voting system integral to debt governance in the bankruptcy context. The finely calibrated bankruptcy decision-making apparatus intended to further the interests of different classes of creditors according to normal bankruptcy priority rules cannot work.

Hidden non-interest issues can implicate important non-voting aspects of bankruptcy governance as well. For instance, such issues can undermine the choices as to which creditors should serve on official or ad hoc creditor committees, whether the court should approve or pay ad hoc creditors' committees' legal fees, and how much weight a court should give to the views of particular creditors.

This debt decoupling analysis emphasized that although it was focused on the private and social costs of debt decoupling, there were unquestionably many private and social benefits as well. For instance, the borrower may have easier access to credit if the would-be creditor knows it can hedge its economic exposure. This research was an analytical construct intended to help identify and understand a new worldwide phenomenon and to offer some possible market and regulatory responses to some of the phenomenon's apparent pathologies. The research did not offer a judgment on the phenomenon's overall benefits and costs.

II. DECOUPLING AND GOVERNANCE MECHANISMS: A BRIEF OVERVIEW OF SOME POST-2008 DEVELOPMENTS AND EVIDENCE

In this Part II, I briefly outline some of the key developments and evidence as to the impact of decoupling subsequent to the 2008 *Decoupling II (Penn)* and *Decoupling II (EFM)* articles. The *TELUS* empty voting case deserves a close look and is, therefore, discussed separately at the end of this part.

31. *Id.* at 685–86.

32. The revision of Rule 2019 is discussed in Part II.B.2.

A. EQUITY DECOUPLING

1. Delaware Courts and Delaware Legislature

In Delaware, the judiciary has taken actions reflecting nuanced concerns about, and a sophisticated appreciation of, empty voting. In addition, the strategy of using morphable ownership to game poison pills came up in a 2009 Delaware case, and Delaware companies now widely act on the apparent assumption that properly structured attempts to respond to such synthetic ownership strategies would be upheld. Finally, the Delaware legislature has taken modest steps in relation to empty voting.

a. *Empty Voting*

In *Crown EMAK Partners, LLC v. Kurz*,³³ the Delaware Supreme Court was faced with the issue of whether the third-party vote-buying agreement at issue would be permitted. However, no derivatives were involved in the case: the matter related to the direct, contractually based buying of votes.

In concluding that the voting arrangement was proper, the Delaware Supreme Court explicitly did so on the grounds that “the economic interests and the voting interests of the shares remained aligned.”³⁴ The opinion set out in full and explicitly relied on three core definitions in *Decoupling I (Lawyer Version)*: “economic ownership,” “full ownership,” and “formal voting rights.”³⁵ If the Delaware Supreme Court applied the decoupling analytical framework even in the context of these direct contractual arrangements, it appears likely it would do so in the financial innovation-based context that the decoupling analytical framework had in mind.

The court in *Crown EMAK* did not distinguish “empty voters” in general from empty voters with negative economic ownership, and it seemingly suggested that, at least in the fact pattern at hand, all empty voting was to be banned. This stands in contrast to the decoupling analytical framework, which does not contemplate blanket substantive limitations on the voting rights of all empty voters and focuses on limiting the voting rights in the extreme case of empty voters with negative economic exposure.

In the subsequent decision of *TR Investors, LLC v. Genger*,³⁶ Vice Chancellor (now Delaware Supreme Court Chief Justice) Strine interpreted *Crown EMAK* as being consistent with concerns about empty voters both with and without negative economic ownership. That is, Vice Chancellor Strine viewed with skepticism voting by persons with a “relatively small economic interest,” as well as

33. 992 A.2d 377 (Del. 2010). Theodore Mirvis of Wachtell, Lipton, Rosen & Katz characterized the Delaware Supreme Court in reaching its decision in *Crown EMAK* as having “endorsed recent scholarship by Professors Henry Hu and Bernard Black on what they have called ‘empty voting,’ and the danger to corporate policy presented by the [decoupling] of voting interests and economic interests.” See Theodore Mirvis, *Delaware Addresses Vote Buying and Synthetic Ownership*, HARV. L. SCH. FORUM ON CORP. GOVERNANCE & FIN. REG. (May 3, 2010, 9:48 AM), <http://www.wlrk.com/webdocs/wlrknew/AttorneyPubs/WLRK.17403.10.pdf>.

34. *Crown EMAK*, 992 A.2d at 390.

35. *Id.* at 390–91.

36. 2010 Del. Ch. LEXIS 153 (July 23, 2010), *aff'd in part & rev'd in part*, 26 A.3d 180 (Del. 2011).

voting by investors with an economic interest adverse to the firm who could vote in ways that reduce the company's share price.³⁷

b. Morphable Ownership and Poison Pills

The Delaware Chancery Court also has faced the issue of morphable ownership being used to avoid the application of poison pills. The 2009 case of *In re Atmel Corp. Shareholders Litigation* involved a poison pill intended to respond to the possibility of morphable ownership gaming of ownership thresholds.³⁸ In the face of a takeover bid from Microchip Technology, Inc. (Microchip), Atmel Corporation (Atmel) adopted an amendment to its poison pill that lowered the percentage of equity ownership necessary to trigger the pill and expanded the definition of "beneficial ownership" to encompass derivative contracts that provided economic benefits and risks that correspond to ownership of the Atmel common shares. Plaintiff shareholders sought injunctive relief invalidating the plan.

The express intent of the expanded definition of "beneficial ownership" was to address morphable ownership. Counsel for Atmel contended that, absent the change, a takeover bidder could, without exceeding triggering thresholds under a traditional rights plan, warehouse the shares in friendly hands and, when it actually needed the shares, obtain the shares by closing out its derivative position.³⁹ Counsel referred to the decoupling analytical framework in general, the hidden (morphable) ownership component in particular, and the CSX hidden (morphable) ownership opinion.

Ruling from the bench, Chancellor Chandler rejected the plaintiff's request for a preliminary injunction, primarily on procedural grounds.⁴⁰ Although the ruling did not deal with the substantive issue of the validity of Atmel's attempts to address the synthetic ownership at issue, the Chancellor noted the strategy in detail and referred to the "complex and novel issues" involved and the need for "careful, reasoned, and incremental response of the law to the ever-changing business practices that affect Delaware corporations."⁴¹ A few months later, the parties reached a settlement involving some definitional clarifications.

Delaware corporations appear now to take the view that attempts to address such morphable ownership in poison pills, if properly structured, would be upheld. About three-fourths of traditional rights plans adopted or renewed in 2012 and 2013 contained language including morphable ownership in the calculation of the beneficial ownership threshold that triggers a rights plan.⁴²

37. *Id.* at *71–72 (citing, among other sources, *Decoupling I (Lawyer Version)* and *Decoupling II (Penn)*).

38. Transcript of Oral Argument, *In re Atmel Corp. S'holders Litig.*, No. 4161-CC (Del. Ch. May 22, 2009) [hereinafter *Atmel Transcript*]. The author was retained as a consultant in this litigation by Wachtell, Lipton, Rosen & Katz, counsel to Atmel.

39. See Defendants' Memorandum in Opposition to Motion for Injunctive Relief at 8–14, *In re Atmel Corp. S'hareholders Litig.*, C.A. No. 4161-CC (Del. Ch. Mar. 11, 2009).

40. *Atmel Transcript*, *supra* note 38, at 108.

41. *Id.* at 102–03, 106.

42. MARK D. GERSTEIN ET AL., *THE RESILIENT RIGHTS PLAN: RECENT POISON PILL DEVELOPMENTS AND TRENDS* 24 (July 2014).

The Delaware legislature has taken modest steps in respect of empty voting. On August 1, 2009, what are sometimes referred to as the “empty voting amendments” to the Delaware General Corporation Law came into effect.⁴³ Among other things, section 213(a) was amended to allow corporations to fix a record date for determining stockholders entitled to vote that is different from the record date for notice of a stockholder meeting. The essential concept was to allow corporations to move the record date for voting purposes closer to the meeting date so that the corporation could reduce the likelihood of voting by persons who no longer had an economic interest in the company.

2. The SEC, Dodd-Frank, and the European Union

The SEC has long had a keen appreciation of empty voting and hidden (morphable) ownership issues but, leaving aside the possible effect of a 2015 SEC proposal mandated by the Dodd-Frank Act, has not taken actions with respect to either. In January 2007, then-SEC Chairman Christopher Cox was quoted in a front-page *Wall Street Journal* story on how empty voting “is already a serious issue” and “is almost certainly going to force further regulatory response.”⁴⁴ The same month, SEC Commissioner Paul Atkins publicly spoke of how empty voting and other equity decoupling carried “the potential to create much mischief in shareholder voting.”⁴⁵

On July 14, 2010, the SEC voted unanimously to issue a Concept Release on the U.S. Proxy System.⁴⁶ The 151-page Concept Release constituted the SEC’s most significant effort to modernize “proxy plumbing” in thirty years.⁴⁷ Although empty voting is discussed throughout, a section titled “Empty Voting’ and Related ‘Decoupling’ Issues” discussed equity decoupling, debt decoupling, and hybrid decoupling in an integrated way over the course of thirteen pages, relying expressly on the analytical framework and terminology set out in *Decoupling II (Penn)* and *Decoupling II (EFM)*.⁴⁸ Although many of the SEC’s concerns over decoupling of all three types were framed as questions (including ques-

43. See, e.g., POTTER ANDERSON & CORROON LLP, AN M&A LAWYER’S GUIDE TO THE DGCL AMENDMENTS (Apr. 2009); *2009 Amendments to the Delaware General Corporation Law Address Corporate Governance, Focus on Stockholder Rights*, DUANE MORRIS (Apr. 22, 2009), <http://www.duanemorris.com/alerts/alert3234.html>.

44. Kara Scannell, *How Borrowed Shares Swing Company Votes*, WALL ST. J., Jan. 26, 2007, at A1. Two months later, Chairman Cox stated he had asked senior staffers to provide recommendations by year’s end and that he did not “want to rule out anything.” Kara Scannell, *Hedge Funds Vote (Often): In Proxies, Borrowed Shares Fill Ballot Box*, WALL ST. J., Mar. 22, 2007, at C1.

45. Commissioner Paul S. Atkins, Speech by SEC Commissioner: Remarks at the Corporate Directors Forum (Jan. 22, 2007), available at <http://www.sec.gov/news/speech/2007/spch012207psa.htm>.

46. Exchange Act Release No. 82495: Concept Release on the U.S. Proxy System (July 14, 2010) [hereinafter SEC Concept Release], available at www.sec.gov/rules/concept/2010/34-62495.pdf.

47. Kara Scannell, *SEC Delves into “Proxy Plumbing”: Biggest Review in 30 Years Puts Empty Voting, Adviser Conflicts, Other Issues Under the Microscope*, WALL ST. J., July 15, 2010, at C3.

48. See SEC Concept Release, *supra* note 46, at 137–50. As was disclosed at the outset of that section of the SEC Concept Release, the author of this Article was then serving as the director of the SEC’s Division of Risk, Strategy, and Financial Innovation (now called the Division of Economic and Risk Analysis).

tions related to the hidden (morphable) ownership issue⁴⁹), the SEC was emphatic as to the need for greater transparency relating to empty voting. The SEC stated that

there is a strong argument for ensuring that there is transparency about the use of empty voting. If a voter acquires shares with a view to influencing or controlling the outcome of a vote but takes steps to reduce the risk of economic loss or even achieve a negative economic interest, disclosure of the empty voter's status and intentions could be important to other shareholders.⁵⁰

In a December 2011 speech, SEC Chairman Mary Schapiro announced that the SEC would in 2012 begin a broad review of section 13(d) reporting rules, including the issue of whether beneficial ownership should be changed to include cash-settled equity swap stakes (i.e., the hidden (morphable) ownership issue).⁵¹ She noted that it was “important to modernize [SEC] rules” and that the SEC was “considering whether they should be changed in light of modern investment strategies and innovative financial products.”⁵²

The need for SEC action as to hidden (morphable) ownership had become pressing because of a statutory change. As noted earlier, the 2008 district court opinion in *CSX* had found that the hidden (morphable) ownership strategy at issue violated section 13(d). In 2010, the Dodd-Frank Act nullified the effect of the decision. Section 766 amended section 13 to provide that, with respect to an equity swap, persons will be deemed to have acquired beneficial ownership *only if* the SEC determines by rule “after consultation with the prudential regulators and the Secretary of the Treasury” that (a) the swap “provides incidents of ownership comparable to direct ownership of the equity security” and (b) the determination is necessary to achieve the purposes of section 13.⁵³

In other words, absent such an SEC determination, section 766 of the Dodd-Frank Act allows the use of hidden (morphable) ownership strategies to avoid section 13(d) disclosure. This has had the effect of encouraging this kind of equity decoupling.

In contrast, another section of the Dodd-Frank Act and implementation by SEC rulemaking may have the effect of discouraging empty voting in certain circumstances, even though the section was directed at other goals. As discussed in *Decoupling I (Law Review Version)*, empty voting occurs when a company's corporate executives engage in the practice of entering into zero-cost collars or other hedges to protect against declines in the value of their equity holdings.⁵⁴ In such

49. See *id.* at 150.

50. See *id.* at 140 (footnote omitted).

51. Mary L. Schapiro, Remarks at the Transatlantic Corporate Governance Dialogue (Dec. 15, 2011), available at <http://www.sec.gov/news/speech/2011/spch121511mls.htm>.

52. *Id.*

53. See Dodd-Frank Act, *supra* note 5, § 766, 124 Stat. at 1797 (codified as amended at 15 U.S.C. § 78m-1 (2012)) (adding section 13(o) to the Exchange Act).

54. See Hu, *Decoupling I (Law Review Version)*, *supra* note 7, at 817, 824, 831–32.

circumstances, the executives' voting power would exceed their economic interest. The extent of hedging by executives appears to be high, and especially at certain companies, the percentage of stock held by senior executives and directors can be extremely high.⁵⁵ This combination can result in empty voting by such individuals being a significant issue. The impact of such insider empty voting can be exacerbated if coupled with empty voting strategies undertaken by the corporation itself.⁵⁶

Section 955 of the Dodd-Frank Act added a new section 14(j) to the Exchange Act, mandating that the SEC require, by rule, that proxy statements involving the election of directors disclose whether the company permits employees, board members, or their designees to hedge.⁵⁷ On February 9, 2015, as this Article was in the final editing stage, the SEC proposed a rule to implement Section 955.⁵⁸ The rule is not directed at empty voting but instead at allowing shareholders to better determine whether corporate insiders are permitted by the company to engage in transactions that may lead them to depart from the incentive alignment associated with ownership of shares. If the proposed rule is adopted substantially in its current form, the effect may be to encourage more corporations to discourage such insider hedging. If there were less hedging of this sort, there would be less empty voting.

This new SEC proposal aside, the SEC has yet to adopt actions with respect to either empty voting or hidden (morphable) ownership, much less the more ambitious reforms advanced in *Decoupling I (Law Review Version)*, *Decoupling II (Penn)*, and *Decoupling II (EFM)* (such as the adoption of the integrated ownership disclosure proposal). To a substantial extent, this was because of factors beyond the SEC's control. Most notably, the global financial crisis that started in 2007 and the implementation of the Dodd-Frank Act enacted in 2010 placed, and is continuing to place, extraordinary demands on an agency that was badly underresourced to begin with.⁵⁹ As of October 2014, reports suggested that section 13(d) reform was not an SEC priority.⁶⁰

55. One recent study found that, as to Standard & Poor's 1500 Composite Index corporations with a single class of equity, the CEOs of Carnival Corporation, National Presto Industries, Saul Centers, and Scotts Miracle-Gro each owned about 30 percent of their respective corporations. See, e.g., IRRIC INST. & ISS, CONTROLLED COMPANIES IN THE STANDARD & POOR'S 1500: A TEN YEAR PERFORMANCE AND RISK REVIEW 19–22 (Oct. 2012).

56. See Hu, *Empty Voting II (Penn)*, *supra* note 8, at 642–51, 688–92, 694–95, 706–707.

57. See Dodd-Frank Act, *supra* note 5, § 955, 124 Stat. at 1904–05 (codified as amended at 15 U.S.C. § 78n(j) (2012)) (adding section 14(j) to the Exchange Act).

58. Exchange Act Release No. 74232, Disclosure of Hedging by Employees, Officers and Directors, (Feb. 9, 2015), available at <http://www.sec.gov/rules/proposed/2015/33-9723.pdf>. As to the general issue of company insiders and companies themselves engaging in empty voting, see the sources cited in *supra* note 20.

59. Speaking in March 2014, after she had returned to the private sector, Schapiro stated that “[w]ith the 100 or so Dodd-Frank rules on our plate, we didn’t have a chance to address this issue during my tenure.” Michael Sicolnofi & Susan Pulliam, *SEC Is Urged to Shorten Window for Investor Tip-offs*, WALL ST. J. (Mar. 27, 2014, 7:02 PM EST), <http://www.wsj.com/articles/SB10001424052702304688104579465661917560346>.

60. Igor Kossov, *SEC Is Not Prioritizing Section 13(d) Reform, Commissioner Says*, LAW360 (Oct. 3, 2014, 2:57 PM EST), <http://www.law360.com/articles/583856/sec-not-prioritizing-rule-13-d-reform-commissioner-says>.

In Europe, however, steps relating to both empty voting and hidden (morphable) ownership have been taken at the national level both before and after 2008.⁶¹ And, at the supranational level, the European Union (EU) has addressed hidden (morphable) ownership. In 2013, the EU adopted Directive 2013/50/EU, amending the existing Transparency Directive to capture disclosure of major holdings of cash-settled derivatives and all other financial instruments that could be used to acquire economic interest in listed companies and have the same effect as holdings of equity.⁶²

B. DEBT AND HYBRID DECOUPLING: BANKRUPTCY DEVELOPMENTS AND OTHER MOUNTING EVIDENCE

In 2007–2008, when the term “empty creditor” was introduced and debt and hybrid decoupling was incorporated into the overall decoupling framework, the real-world evidence for such decoupling was more limited than that for equity decoupling.⁶³ The research relied primarily on five types of evidence: (1) anecdotal evidence; (2) the size of certain CDS positions relative to debt outstanding; (3) private discussions with bankruptcy judges about odd behavior in their courtrooms, which debt decoupling might explain; (4) rumors as to decoupling strategies used in “distressed debt” investing; and (5) interest in the term “empty creditor” and related matters from bankruptcy practitioners, bankruptcy judges, and derivatives dealers.

There is now far more evidence. First, both debt and hybrid decoupling appear to have played roles in three of the seminal events of the global financial crisis that reached its apex in September 2008—the collapses of AIG, General Motors, and Chrysler. Second, concerns on the part of bankruptcy judges and practitioners over debt decoupling hidden interest/non-interest issues contributed to a major revision of the Federal Rules of Bankruptcy Procedure. Third, there is now formal empirical evidence as well as more concrete non-empirical evidence as to the impact of debt decoupling. I turn to these three types of evidence in order.

61. As to steps taken at the national level with respect to hidden (morphable) ownership, see, for example, Hu & Black, *Decoupling II (Penn)*, *supra* note 8, at 686–88 (actions taken in 2005 by the U.K. Takeover Panel and in 2007 by the U.K. Financial Services Authority). As to steps taken at the national level with respect to empty voting, the European Securities and Monetary Authority (ESMA) stated in 2011 that two member states had taken steps to address empty voting or were planning to do so. EUR. SEC. & MKTS. AUTH., CALL FOR EVIDENCE ON EMPTY VOTING (Sept. 14, 2011). This statement was made in connection with ESMA’s seeking comments on ESMA’s concerns about the “decoupling of voting rights” and “issues and potential problems relating to empty voting (i.e., having voting rights attached to shares without corresponding economic exposure[]).” *Id.* at 5. However, in June 2012, ESMA stated that the “overall conclusion” of the consultation was that “there appears to be insufficient evidence to require further analysis or action at this stage.” EUR. SEC. & MKTS. AUTH., FEED-BACK STATEMENT—CALL FOR EVIDENCE ON EMPTY VOTING 5 (June 22, 2012).

62. Directive 2013/50EU, of the European Parliament and of the Council of 22 October 2013, 2013 O.J. (L 294) 13.

63. Hu & Black, *Empty Voting II (EFM)*, *supra* note 8, at 682–83.

1. The Global Financial Crisis: AIG, GM, and Chrysler

a. AIG: Goldman Sachs as Empty Creditor with Zero Economic Exposure

The defining moments of the global financial crisis are familiar. In September 2008, Lehman collapsed and AIG was teetering. Because an AIG collapse was viewed as posing unacceptable systemic risks, the Federal Reserve provided the company with an emergency \$85 billion loan on September 16.

However, there was a curious incident that day. Goldman Sachs reported that its exposure in AIG was “not material.”⁶⁴ Yet, on March 15, 2009, AIG disclosed that it paid \$13 billion of its government loans in fall 2008 to satisfy its obligations to Goldman.⁶⁵ A “not material” statement and a \$13 billion payout appear to be at odds.

How might the statement and the payout be reconciled? In an April 2009 *Wall Street Journal* op-ed, the author suggested that one explanation is that Goldman was largely an “empty creditor” of AIG.⁶⁶ On March 20, 2009, David Viniar, Goldman’s chief financial officer, indicated that the company had bought CDSs from “large financial institutions” that would pay off if AIG defaulted on its debt; in addition, Goldman held collateral posted by AIG.⁶⁷ A *Bloomberg* story on that day quotes Mr. Viniar as saying that “[n]et-net I would think we had a gain over time” with respect to the CDS contracts.⁶⁸

Goldman asserted its contractual rights to require AIG to provide additional collateral on transactions between the two, notwithstanding the possible impact on the survival of AIG. This behavior was understandable: Goldman had responsibilities to its own shareholders and, in Mr. Viniar’s own words, was “fully protected and didn’t have to take a loss.” Had Goldman not been an empty creditor with a zero (or a close-to-zero) economic interest in AIG, perhaps Goldman would not have been as assertive as to collateral. A myriad of factors contributed to AIG’s demise, but it might be worth noting that the federal bailout occurred a mere five days after Goldman had asked for an additional \$1.5 billion in collateral.⁶⁹ (I did

64. Mark Pittman, *Goldman, Merrill Collect Billions After Fed’s AIG Bailout Loans*, BLOOMBERG (Sept. 29, 2008, 12:41 AM EST), available at <http://www.bloomberg.com/apps/news?pid=newsarchive&sid=aTzTYtNHSG8> (Goldman spokesman is quoted as stating, “We have said many times on the record that our exposure to AIG was, and is, not material.”).

65. Liam Plevin et al., *AIG Faces Growing Wrath over Payouts*, WALL ST. J., Mar. 16, 2009, at A1; Mary Williams Walsh, *A.I.G. Lists Firms to Which It Paid Taxpayer Money*, N.Y. TIMES, Mar. 16, 2009, at A1.

66. Henry T. C. Hu, “Empty Creditors” and the Crisis: How Goldman’s \$7 Billion Was “Not Material,” WALL ST. J., Apr. 10, 2009, at A13.

67. Christine Harper, *Goldman Sachs Still Has \$6 Billion in AIG Exposure (Update 1)*, BLOOMBERG (Mar. 20, 2009, 4:53 EST), <http://www.bloomberg.com/apps/news?pid=newsarchive&sid=aPWC6zGHA3Ss>.

68. *Id.*

69. As to the occurrence of the \$1.5 billion collateral call on September 11, 2008, see William D. Cohan, Opinion, *How Goldman Killed A.I.G.*, N.Y. TIMES (Feb. 16, 2011), <http://opinionator.blogs.nytimes.com/category/william-d-cohan/>. On September 16, 2008, the Federal Reserve Bank of New York agreed to loan as much as \$85 billion to AIG in exchange of an AIG stake of 80 percent. Zachary Tracer, *AIG Bailout Ends Four Years After Two-Year Plan: Timeline*, BLOOMBERG (Dec. 11, 2012), <http://www.bloomberg.com/news/articles/2012-12-11/aig-bailout-ends-four-years-after-two-year-plan-timeline>.

not suggest in April 2009 any inappropriate behavior on the part of Goldman and do not do so now.⁷⁰⁾

The April 2009 analysis is consistent with the subsequent investigation of the Goldman-AIG relationship on the part of the Congressional Oversight Panel, chaired by Professor Elizabeth Warren. In its June 2010 report, the Panel stated that “[a]s regards to AIG credit risk, the position that Goldman describes is that of the classic ‘empty creditor’ (assuming the accuracy of [Goldman’s] statements) indifferent between bankruptcy and bailout, but hostile to negotiated concessions.”⁷¹

b. GM and Chrysler: Empty Creditors with Negative Economic Exposure, Related Non-Host Assets, and Hybrid Decoupling

In 2009, both General Motors and Chrysler were unable to convince creditors to restructure their debt and filed for bankruptcy. In both cases, reports suggested that among those most opposed to the restructuring were empty creditors, possibly empty creditors with negative economic ownership. Three weeks before GM’s bankruptcy filing, the *Financial Times* noted how certain investors that own both bonds and CDSs would have an incentive to favor a bankruptcy filing and quoted one industry observer as saying how the presence of such swaps caused a “traffic jam of assets and liabilities and contracts at GM.”⁷² Another media story stated that “GM seems to be shaping up as a textbook case of empty-creditor syndrome.”⁷³ After considering the extent of what some CDS holders would receive if GM went bankrupt (\$2.4 billion) and the likely returns from a bankruptcy plan of reorganization, the article asserted that some bondholders would actually do better if they refused to consent to restructuring.⁷⁴

Similar speculation as to possible empty creditor reluctance to restructure attends to the Chrysler restructuring. What makes this Chrysler example worth analyzing separately is the sophisticated means some of the empty creditors may have used to accomplish decoupling. In terms of “coupled assets,” some debt holders used CDSs on the debt of the host company (i.e., Chrysler). However, in addition, some of these debt holders also bought securities of Chrysler’s competitors (i.e., Ford and General Motors) on the theory that, were Chrysler to go bankrupt, those securities would increase in value.⁷⁵ These debt holders were

70. For Goldman’s views as to its interactions with AIG, see its statement, *Overview of Goldman Sachs’ Interaction with AIG and Goldman Sachs’ Approach to Risk Management*, GOLDMAN SACHS, <http://www.goldmansachs.com/media-relations/in-the-news/archive/aig-summary.html> (last visited Feb. 17, 2015).

71. CONG. OVERSIGHT PANEL, JUNE OVERSIGHT REPORT: THE AIG RESCUE, ITS IMPACT ON MARKETS, AND THE GOVERNMENT’S EXIT STRATEGY 147 (June 10, 2010).

72. Henny Sender, *Credit Insurance Hampers GM Restructuring*, FIN. TIMES (May 11, 2009, 11:33 PM), <http://www.ft.com/cms/s/0/1e2bf9ea-3e54-11de-9a6c-00144feabdc0.html>.

73. Daniel Gross, *The Scary Rise of the “Empty Creditor,”* SLATE (Apr. 21, 2009, 3:01 PM), http://www.slate.com/articles/business/moneybox/2009/04/the_scary_rise_of_the_empty_creditor.html.

74. *Id.*

75. Neil King, Jr. & Jeffrey McCracken, *Chrysler Chapter 11 Imminent: Creditor Talks Collapse as Hedge Funds Balk at Deal: Fiat Waiting in the Wings*, WALL ST. J., Apr. 30, 2009, at A1.

thus using what the analytical framework called “related non-host assets” (i.e., securities of Ford and General Motors). And, if those securities were shares rather than debt (as appears likely), these debt holders were engaged in “hybrid decoupling” (i.e., using equity holdings to hedge debt holdings).

2. Amendments to Federal Rule of Bankruptcy Procedure 2019

The hidden interest/hidden non-interest issues stemming from debt decoupling may jeopardize the operation of the bankruptcy governance system.⁷⁶ On December 1, 2011, amendments to Rule 2019 of the Federal Rules of Bankruptcy Procedure intended to help address these and related matters became effective.⁷⁷ In its September 2010 report (*Conference Report*) proposing the amendments, the Judicial Conference Committee on Rules of Practice summarized them as “expand[ing] disclosure requirements to facilitate openness and transparency by revealing potentially divergent economic interests within groups of creditors or equity security holders and on the part of putative representatives of other stakeholders.”⁷⁸ Under the new Rule 2019, the subject parties are required to identify their “disclosable economic interests” relating to the debtor.⁷⁹ “Disclosable economic interest” is defined broadly in subdivision (a) to include “any claim, interest, pledge, lien, option, participation, derivative instrument, or any other right or derivative right granting the holder an economic interest that is affected by the value, acquisition, or disposition of a claim or interest.”⁸⁰

Holdings such as CDSs are clearly covered by this definition. Indeed, the Advisory Committee of Bankruptcy Rules noted that a disclosable economic interest extends to such holdings as “short positions, credit default swaps, and total return swaps.”⁸¹ Consistent with governance concerns over hidden interests/hidden non-interests discussed in Part I.C, the *Conference Report* noted that “it is important to know that members of a committee purporting to represent the debtor’s bond holders also hold a derivative position the value of which is inverse to that of the bonds.”⁸² Similarly, in urging revisions to Rule 2019, at least two bankruptcy court judges had explicitly pointed out how financial innovation was contributing to such problems.⁸³

76. See *supra* Part I.C. Hu and Black called for greater disclosure relating to debt and hybrid decoupling, including mandatory disclosure in bankruptcy proceedings of significant disparities between nominal debt holdings and actual economic exposure. *Decoupling II (EFM)*, *supra* note 8, 684, 689–90, 693.

77. Mark G. Douglas, Revised Bankruptcy Rule 2019 Effective (Dec. 9, 2011) (unpublished manuscript, available at <http://goo.gl/6gSgnz>).

78. REPORT OF THE JUDICIAL CONFERENCE COMMITTEE ON RULES OF PRACTICE AND PROCEDURE TO THE CHIEF JUSTICE OF THE UNITED STATES AND MEMBERS OF THE JUDICIAL CONFERENCE OF THE UNITED STATES 7 (Sept. 2010) [hereinafter CONFERENCE REPORT].

79. FED. R. BANKR. P. 2019.

80. *Id.* R. 2019(a).

81. FED. R. BANKR. P. 2019 advisory comm. note to subdiv. (a).

82. CONFERENCE REPORT, *supra* note 78, at 7.

83. See, e.g., *In re Wash. Mutual, Inc.*, 419 B.R. 271, 279–80 (Bankr. D. Del. 2009) (endorsing increased disclosure, stating that “[t]he proliferation of complex financial instruments results in a sit-

3. Empirical and Additional Non-Empirical Evidence

a. Empirical Evidence

In the post-2008 period, a body of empirical evidence has been emerging that, on the whole, is consistent with the posited concerns over empty creditor behavior with respect to borrower bankruptcy. Some of the key empirical works are briefly described in the footnote below.⁸⁴ The studies contribute much to understanding debt decoupling. However, all of the studies have had to rely on data for empty creditors generally, not data specifically on empty creditors with zero or negative economic ownership, where the decoupling concerns are sharpest.

b. Additional Non-Empirical Evidence: The Current Understanding and Recent Examples

Major media stories on possible real-world examples of empty creditor issues began appearing soon after the identification of such issues in the 2007–2008 articles.⁸⁵ Such media stories were highlighted in Congress during hearings that led ultimately to the Dodd-Frank Act.⁸⁶

uation where, although a creditor is nominally a member of a certain class of creditors . . . the creditor may in fact have a total economic interest adverse to the class as a whole,” and citing, among other things, *Decoupling II (Penn)*; Robert J. Gerber, Letter to Advisory Committee of Bankruptcy Rules 7 (Jan. 9, 2009) (noting how bankruptcy rules need to “catch up with modern times” and the absence of disclosure relating to, among other things, strategies placing economic bets on the failure of the chapter 11 case).

84. See, e.g., STAVROS PERISTIANI & VANESSA SAVINO, FEDERAL RESERVE BANK OF NEW YORK STAFF REPORT NO. 494: ARE CREDIT DEFAULT SWAPS ASSOCIATED WITH HIGHER CORPORATE DEFAULTS? (May 2011), available at http://www.newyorkfed.org/research/staff_reports/sr494.pdf (finding that companies with traded CDS positions on their debt were more likely to default and stating that the findings “are consistent with those of Henry Hu and Bernard Black, who argue that agency conflicts between hedged creditors and debtors would increase the likelihood of corporate default”); Marti G. Subrahmanyam, Dragon Yongjun Tang & Sarah Qian Wang, Credit Default Swaps and Corporate Cash Holdings (June 9, 2014) (unpublished manuscript available at <http://ssrn.com/abstract=2447946>) (finding firms hold significantly more cash after the inception of CDS trading); Marti G. Subrahmanyam, Dragon Yongjun Tang & Sarah Qian Wang, Does the Tail Wag the Dog? The Effect of Credit Default Swaps on Credit Risk (Dec. 21, 2012) (unpublished manuscript available at <http://ssrn.com/abstract=21923510>) (finding probability of bankruptcy increases after inception of CDS trading). *But see*, e.g., Mascia Benendo, Lara Cathcart & Lina El-Jahel, Distressed Debt Restructuring in the Presence of Credit Default Swaps (Nov. 15, 2012) (unpublished manuscript available at <http://ssrn.com/abstract=1666101>) (finding that “[c]ontrary to the predictions of the empty creditor theory, we do not find evidence that the access to credit insurance favors bankruptcy over a debt workout”). Finance professors have recently begun introducing formal mathematical models for empty creditor issues. See, e.g., Patrick Bolton & Martin Oehmke, *Creditor Default Swaps and the Empty Creditor Problem*, 24 REV. FIN. STUD. 2617 (2011).

85. As to some of the early stories on empty creditors, see, for example, Daniel Gross, *The Scary Rise of the “Empty Creditor,”* SLATE (Apr. 21, 2009, 3:01 PM), http://www.slate.com/articles/business/moneybox/2009/04/the_scary_rise_of_the_empty_creditor.html (identifying Six Flags as possible example); Francesco Guerrero, Ben White & Aline van Duyn, *Derivatives Boom Raises Risk of Bankruptcy*, FIN. TIMES, Jan. 28, 2008, at 13; *CDSs and Bankruptcy: No Empty Threat*, ECONOMIST, June 20, 2009, at 39 (identifying AbitibiBowater, General Growth Properties, and Six Flags as possible examples); *Bankruptcies in America: Waiting for Armageddon*, ECONOMIST, Mar. 29, 2008, at 81.

86. At one such hearing, Congresswoman Maxine Waters referred to such media stories and asked the author, who was testifying for the SEC to help her understand empty creditor issues and evaluate a possible statutory ban of “abusive swaps.” See *Reform of the Over-the-Counter Derivative Market*:

Such stories, and the other post-2008 developments already discussed, have now resulted in most sophisticated financial observers, including regulators, having developed a general understanding of both the positive and negative effects of empty crediting. In its September 2009 report, the Congressional Oversight Panel discussed the research on how empty creditors can have unusual incentives with respect to debtors in bankruptcy proceedings and summarized its thesis by noting how “the interests of particular creditors can be far more complex than those assumed by any simple model.”⁸⁷ In 2010, the SEC stated that empty creditors “may sometimes even have the incentive to use the control rights the debtholders have in their loan agreements or bond indentures to try to cause a company to go into bankruptcy.”⁸⁸ Also in 2010, U.S. Commodities and Futures Trading Commission Chairman—and former co-head of Finance at Goldman Sachs—Gary Gensler gave a speech in which he expressed his belief that empty creditors may seek to push companies toward bankruptcy for their own economic benefit.⁸⁹

I mention two interesting recent examples of debt decoupling. One example, involving RadioShack, shows how debt decoupling, even in the absence of empty creditors with negative economic exposure, can complicate debt governance. The example involving Cordere illustrates how empty creditors with negative economic exposure can harm a borrower even without seeking to push the borrower into bankruptcy.

RadioShack. As discussed in Part I.C, the mere presence of debt decoupling could complicate debt governance. CDS protection sellers bear the risk of debtor default. Not surprisingly, such contingent creditors, like traditional creditors, take steps to minimize the chances of debtor default. The 2008 article *Decoupling I (EFM)* discussed how protection sellers sometimes take steps such as insisting that, like traditional creditors of troubled companies, they receive detailed debtor information from the protection buyers.⁹⁰ Moreover, the 2008 article showed how protection sellers may seek to obtain control rights from protection buyers, may use covenants to limit resale or hedging by the original lenders, and may require the protection buyer, if it is also a creditor, to act in the interests of other creditors.⁹¹

In 2014, there was evidence that some contingent creditors go even further to protect their interests—to the extent of becoming formal creditors of the debtor. Certain CDS sellers of RadioShack debt were reported to have directly lent

Limiting Risk and Ensuring Fairness: Hearing Before the H. Comm. on Fin. Servs., 111th Cong. 19–20 (2009) (statements of Maxine Waters, Member of Congress, and Henry T. C. Hu, Director, Division of Risk, Strategy, and Financial Innovation, U.S. Securities and Exchange Commission), available at <http://www.gpo.gov/fdsys/pkg/CHRG-111hhrg55811/pdf/CHRG-111hhrg55811.pdf>.

87. CONG. OVERSIGHT PANEL, SEPTEMBER OVERSIGHT REPORT (Sept. 9, 2009) (note 253 and associated text).

88. SEC Concept Release, *supra* note 46, at 142 n.123.

89. Stacy-Marie Ishmael, *Gensler on CDS Regulation: Many a Mixed Metaphor*, FT ALPHAVILLE (Mar. 16, 2010, 14:53 PM), <http://ftalphaville.ft.com/2010/03/16/176811/gensler-on-cds-regulation-many-a-mixed-metaphor/>.

90. Hu & Black, *Decoupling I (EFM)*, *supra* note 7, at 685–86.

91. *Id.* at 682, 686.

money to RadioShack to keep the company afloat.⁹² Presumably, the CDS sellers' stakes were large, and they were putting in just enough money to keep the company alive until the expiration of the swaps.⁹³ Debt governance may now even be more complex, directly involving not only the borrower, its (traditional) formal creditors, and contingent creditors (i.e., CDS sellers) but also "hybrid" creditors (i.e., contingent creditors that also are formal creditors).

In RadioShack's case, the CDS sellers' infusions did not prove sufficient. On February 4, 2015, RadioShack filed for bankruptcy.⁹⁴ How debt governance with such a complicated set of players will play out in bankruptcy court may prove interesting.

Codere. In 2013, the Blackstone Group's debt-investing arm reportedly bought a loan by a Spanish company, Codere, S.A., and it then refused to renew the loan unless management delayed paying interest on other existing debt by a few days.⁹⁵

Why? The late payment triggered a payout on the CDS that it had previously purchased. One explanation for this might be that the Blackstone unit was an empty creditor with negative economic ownership.

C. THE TELUS CASE: THE MEANING OF "EMPTY VOTER WITH NEGATIVE ECONOMIC OWNERSHIP" UNDER THE DECOUPLING ANALYTICAL FRAMEWORK

In one of the highest-profile, most hotly contested proxy fights in Canadian history, a critical issue was whether a hedge fund should be considered an empty voter with negative economic ownership within the meaning of the decoupling analytical framework. The fact pattern was unusually complex, involving a plan for the collapse of two classes of shares proposed by TELUS Corporation (a C\$11.4 billion telecommunications company) and the opposition of a hedge fund, Mason Capital Management (Mason Capital), which was arbitraging differences between the prices of the two classes. Before successive judges in the proxy fight, TELUS asserted that the hedge fund was this extreme type of empty voter. Mason Capital asserted it was not an empty voter of any kind.

In the key December 2012 judicial opinion approving the plan for collapse of the two classes, Justice Fitzpatrick of the Supreme Court of British Columbia found "in all likelihood" that Mason Capital was an empty creditor with negative economic ownership within the meaning of the decoupling framework.⁹⁶ She

92. Jodi Xu Klein, *RadioShack Kept Alive by \$25 Billion of Swaps Side Bets*, BLOOMBERG (Dec. 18, 2014), <http://www.bloomberg.com/news/2014-12-18/radioshack-kept-alive-by-25-billion-of-swaps-side-bets.html>.

93. *Id.*

94. Rebecca R. Ruiz & Michael J. de La Merced, *RadioShack Files for Chapter 11 Bankruptcy After a Deal with Sprint*, N.Y. TIMES DEALBOOK (Feb. 5, 2015, 5:47 PM), <http://dealbook.nytimes.com/2015/02/05/radio-shack-files-for-chapter-11-bankruptcy/>.

95. Matt Wiz, Matt Jarzemsky & Tom McGinty, *Credit-Default Swaps Get Activist New Look*, WALL ST. J. (Dec. 23, 2014, 7:12 PM EST), <http://www.wsj.com/articles/credit-default-swaps-get-activist-new-look-1419379954>.

96. *TELUS Opinion*, *supra* note 9, at para. 365.

further found that this status was relevant to the court's consideration of Mason Capital's objections to the terms of the collapse, and she approved the plan.⁹⁷ A month later, Mason Capital gave up its fight against TELUS's proposal.⁹⁸

Justice Fitzpatrick explicitly sought to determine Mason Capital's status under the decoupling analytical framework. The author was retained by legal counsel to TELUS to, among other things, provide an affidavit that independently commented on this issue.⁹⁹ Professor Bernard Black was compensated by Mason Capital to, among other things, prepare a statement attached to Mason Capital's Dissident Proxy Statement as Appendix C.¹⁰⁰

The Hu Affidavit concluded that, based on certain assumptions, "not only is [Mason Capital] an 'empty voter' in the Hu & Black sense, but it represents the extreme type of empty voter characterized by Hu & Black as an empty voter with 'negative economic ownership.'"¹⁰¹ The Black Statement, on the other hand, concluded that, as to the vote at issue, Mason Capital was "not an empty voter."¹⁰²

TELUS had two classes of stock, one class with voting rights and the other class without voting rights. TELUS proposed a plan to collapse the share classes, with the result that all of its shareholders would have voting rights. Mason Capital objected to TELUS's plan.

Mason Capital's stake in TELUS was highly idiosyncratic. According to Mason Capital, as of August 31, 2012, it (a) held a *long* position of 32,765,829 voting shares, representing about 18.73 percent of TELUS's outstanding voting shares and, simultaneously, (b) held a *short* position of 14,658,129 voting shares and 18,036,800 non-voting shares for a total short position of 32,694,929 TELUS shares.¹⁰³

Was Mason Capital an empty voter? If the complex fact pattern were to be viewed very simplistically, Mason Capital clearly was. *Decoupling I (Law Review Version)* defines empty voters as "any persons whose voting rights substantially exceed their "net economic ownership."¹⁰⁴ What was Mason's "net economic

97. *Id.* at para. 366.

98. See Luann Lasalle, *Mason Capital Loses Appeal in Challenge to Telus Share Plan*, GLOBE & MAIL (Dec. 18, 2012, 5:45 EST), http://www.globeinvestor.com/servlet/WireFeedRedirect?cf=GlobeInvestor/config&svg=BigAdVariableGenerator&date=20121218&archive=rtgam&slug=escenic_6532828; Deborah Bacal, *Telus Goes Ahead with Share Consolidation Plan as Mason Drops Fight* (Jan. 25, 2013, 11:24 AM), available at <http://www.proactiveinvestors.com/companies/news/39871/telus-goes-ahead-with-share-consolidation-plan-as-mason-drops-fight-39871.html>.

99. The author prepared the affidavit as an expert to assist the court and not as an advocate for any party pursuant to the strict requirements of Rule 11-2(2) of the British Columbia Supreme Court. See Affidavit of Henry T. C. Hu, TELUS Corporation (Re), 2012 BCSC 1919 (Oct. 8, 2012) [hereinafter Hu Affidavit]. The legal counsel for TELUS were Norton Rose Canada and Farris Vaughan Willis & Murphy.

100. See Mason Capital Management LLC, Proxy Statement (Appendix C: Bernard Black, Equity Decoupling and Empty Voting: The TELUS Zero-Premium Share Swap) (Sept. 24, 2012) [hereinafter Black Statement].

101. Hu Affidavit, *supra* note 99, at para. 19.

102. Black Statement, *supra* note 100, at 7.

103. Hu Affidavit, *supra* note 99, at 17.

104. Hu & Black, *Decoupling I (Law Review Version)*, *supra* note 7, at 825.

ownership”? *Decoupling I (Law Review Version)* states that “economic ownership” is to be determined in terms of the “economic returns associated with shares” while “net economic ownership” is a person’s combined economic ownership of host shares and coupled assets.¹⁰⁵ This net economic ownership can be positive, zero, or negative.

Mason Capital held a long position of 32,756,829 voting shares and a total short position of 32,694,929 voting and non-voting shares. If, *arguendo*, one takes the relatively basic approach (a more refined analysis follows) of simply subtracting the total number of TELUS shares (voting and non-voting) in Mason’s short position from the total number of shares in Mason’s long position, Mason’s net economic ownership in TELUS was all of 61,900 shares (i.e., only about 0.021 percent of TELUS’s shares).¹⁰⁶

Based on this relatively basic application of the decoupling framework, Mason Capital’s 18.73 percent voting right is literally a 1,000-fold multiple of its net economic interest. With this kind of relatively basic application, Mason Capital’s voting right “substantially exceeds” its net economic ownership, and Mason is clearly an empty voter.¹⁰⁷

But a far more refined analysis is needed to truly determine whether Mason Capital was an empty voter and is essential to determining whether it fell into the category of empty voter with negative economic exposure. If it were, in fact, an empty voter with negative economic exposure (i.e., if it had incentives to destroy shareholder wealth), the court would clearly be justified in ignoring the objections of Mason Capital.

In addressing this question, Justice Fitzpatrick started by accepting the Hu Affidavit’s emphasis on the overarching, shareholder return-centric “economic ownership” theme underlying the decoupling framework. She stated:

The discussion must start from what is normally considered the traditional hallmarks of the relationship between a company and its shareholders. . . . As Professor Hu puts it:

Ownership of shares customarily conveys economic, voting, and other rights and obligations, including certain disclosure obligations. Law and business practice typically assume that the elements of this package of rights and obligations cannot be readily “decoupled”—that, for instance, voting rights cannot be separated from an economic interest in the corporation. The nearly-universal (in the U.S.) “one share-one vote” corporate ownership and governance model is an example of this assumption

105. *Id.* at 824–25.

106. There are “precedents” under the decoupling analytical framework for this relatively basic approach. *Decoupling I (Law Review Version)* discussed in detail Liberty Media’s complex positions in voting and non-voting shares of News Corp. In determining the status of Liberty Media as an “empty voter,” the article compared its combined (voting and non-voting) ownership of shares of News Corp. with its derivative position in respect of News Corp.’s voting shares. That is, in determining overall economic ownership, the article treated voting and non-voting shares as fungible. The later Hu & Black articles all effectively relied on this Liberty Media analysis in setting out Liberty Media as an empty voter in the tables listing examples of decoupling.

107. *TELUS Opinion, supra* note 9, at para. 339.

. . . If one of the basic goals of all corporations is to increase shareholder wealth (i.e., the share price), we want those who have a stake in shareholder wealth to be in a position to select management and to pressure them to maximize shareholder wealth. There is a close, integral relationship among the core pecuniary objective of corporate management (i.e., shareholder wealth maximization), the concept of “economic ownership” in *Hu & Black* (i.e., one determined by shareholders’ entitlement to returns on shares), and the rationale for having voting rights.”¹⁰⁸

The precise economics of the highly idiosyncratic long-short positions held by Mason Capital in the two different classes of shares are key to understanding the nature of Mason Capital’s economic ownership. The *Hu* Affidavit asserted that its economic ownership was in fact very different from the “economic ownership” of each of the following three types of TELUS long-only shareholders:

- (a) Persons who hold only TELUS voting shares (*Voting Shareholders*);
- (b) Persons who hold only TELUS non-voting shares (*Non-Voting Shareholders*); and
- (c) Persons who hold both TELUS voting shares and TELUS non-voting shares (*Combination Shareholders*).¹⁰⁹

Collectively, I refer to these three categories of persons as “TELUS Shareholders.”

One can illustrate how Mason Capital’s “economic ownership” can look different from each of the foregoing three categories of TELUS long-only shareholders. Consider an external shock such as a general stock market crash:

- (a) Every TELUS Shareholder, regardless of category, will be hurt. Each TELUS Shareholder, in other words, has “economic ownership” in the *Hu & Black* sense: with these share price drops, their wealth drops.
- (b) In contrast, Mason Capital’s wealth would not be materially affected. The loss from its long position would presumably be, in rough terms, offset by the gain from its short position. Both TELUS voting shares and TELUS non-voting shares would drop severely in case of a stock market crash, and there is no inherent reason that either company would differ significantly in terms of how much it would drop. Thus, in the case of a general stock market crash, and unlike all other categories of TELUS Shareholders, Mason Capital has no exposure to the return on TELUS shares and thus has a “net economic ownership” around zero.

Now consider the opposite of a stock market crash, something that would cause the share price of both TELUS voting shares and TELUS non-voting shares to increase materially:

- (a) Irrespective of how much the share prices of TELUS voting shares rise relative to those of non-voting TELUS shares, the wealth of every category of TELUS Shareholder would increase. Given that “economic ownership” under the decoupling framework uses a touchstone of shareholder returns (i.e., shareholder wealth), every TELUS Shareholder thus has a positive economic ownership of TELUS shares.

108. *Id.* at para. 337 (emphasis added).

109. *Hu* Affidavit, *supra* note 99, at para. 50.

- (b) In contrast, as next described below, if the share price of TELUS voting shares increases, Mason Capital's wealth may not necessarily increase. Similarly, if the share price of TELUS non-voting shares increases, Mason's wealth may not necessarily increase. In other words, Mason's wealth is not tied to returns on either class of shares. Therefore, in the Hu & Black sense, Mason has zero economic ownership in either class of shares.

If one considers Mason's entire portfolio of long and short positions in voting shares and non-voting shares, what Mason possesses is an economic interest in the "spread" between share prices of the two classes of shares. The Hu & Black analytical framework conceives of economic ownership as flowing from returns on shares, not on the spread between the prices of two kinds of shares. As such, it is difficult to conceive of Mason's having "economic ownership."

Thus, under this more refined application of the decoupling framework, Mason is again an "empty voter." However, this is not the end of the analysis. If one makes certain assumptions about the impact of the TELUS plan on shareholder wealth and on Mason Capital's own position, then Mason Capital would not only be an "empty voter"—it could fall within the extreme category of an "empty voter" with "negative economic ownership."

First, based on a report from Institutional Shareholder Services (which described itself as an "objective third-party advisor"), the Hu Affidavit assumed that the success of the TELUS plan would probably result in the trading prices of both classes increasing and that, conversely, the failure of the plan would probably cause the trading prices to decrease.¹¹⁰ Second, the affidavit assumed the validity of an earlier opinion in the British Columbia Supreme Court finding that Mason's exposure to TELUS is the "differential" (or "spread") between the prices of voting and non-voting shares and that Mason stood to profit if the price differential widened.¹¹¹

Under these assumptions, Mason Capital could *benefit* from the destruction of shareholder wealth. The failure of the TELUS plan would cause trading prices of both voting and non-voting shares to fall. Mason Capital would still profit from this outcome as long as the non-voting shares fall further than the voting shares. In this regard, Mason Capital's interests would not be aligned with those of any long-only TELUS Shareholders, whether they be Voting Shareholders, Non-Voting Shareholders, or Combination Shareholders.

That is, Mason Capital could actually benefit from the collapse of a plan that would cause the prices of both share classes to drop. Thus, Mason Capital would fall in the extreme category of being an "empty voter with negative economic ownership." In contrast, under the same assumptions, all three categories of TELUS Shareholders would benefit if the plan goes through, and each would suffer if the plan fails (i.e., all long-only TELUS Shareholders have positive

110. Hu Affidavit, *supra* note 99, at paras. 56, 57.

111. *Id.* at para. 59. The pertinent portions of the earlier opinion are at *TELUS Corp. v. CDS Clearing & Depository Services Inc.*, 2012 BCSC 1350, paras. 21, 108, 110.

economic ownership in the sense that their wealth rises or falls with the share price movements.

Justice Fitzpatrick accepted the foregoing analysis from the Hu Affidavit. She noted how, in terms of economic ownership, the fortunes of the Voting Shareholders, the Non-Voting Shareholders, and the Combination Shareholders all rest on the increase or decrease in share prices.¹¹² In contrast, she stated that, “[a]s Professor Hu puts it, Mason’s wealth is not tied to a return on either class of shares. Rather . . . , Mason’s “economic interest” in TELUS lies in the price spread between the two classes of shares, and it stands to profit if that spread rises.”¹¹³ Moreover, looking at the likely impact of the collapse on the share prices of both classes of shares (*up*) and on the price spread between the two classes (*down*), she stated:

Professor Hu persuasively concludes that assuming the Arrangements have a positive impact on the prices of both classes of TELUS shares, and further assuming that Mason will profit from an increase in the share price spread if the New Proposal fails, then Mason is the extreme type of “empty voter” identified by Hu & Black as an “empty voter” with “negative economic ownership.”¹¹⁴

Justice Fitzpatrick summarized the Black Statement’s argument as follows:

Professor Black is of the view that *because Mason has an economic interest in the value of voting rights*, it in turn has an economic interest in the outcome of the proposed Arrangement and as Mason has an economic interest in the outcome, Professor Black concludes that Mason is not engaging in “empty voting.”¹¹⁵

In Professor Black’s own words:

In fact, for a vote which turns on the value of voting rights, Mason has an economic interest in this outcome, and thus is *not* engaging in empty voting. (It would be an empty voter on other potential issues brought to shareholders for a vote.)

. . .

In other words, whether a shareholder is an empty voter can depend on the issue being voted on. For an issue involving the value of voting rights, Mason has a significant economic interest; many other holders of TELUS voting have near-zero or even negative economic interest in the value of voting rights. For an issue on which the interests of voting and non-voting shareholders are the same, these shareholders would have a significant economic interest, while Mason would not.¹¹⁶

The Hu Affidavit challenged the Black Statement’s focus on the value of voting rights as the sole touchstone for determining empty voter status in the context of this case on a variety of grounds.¹¹⁷ The challenge, which appeared to resonate with Justice Fitzpatrick, centered on the theme that to focus simply on the value

112. *TELUS Opinion*, *supra* note 9, at para. 340.

113. *Id.*

114. *Id.* at para. 342.

115. *Id.* at para. 338 (emphasis added).

116. Black Statement, *supra* note 100, at 4.

117. See Hu Affidavit, *supra* note 99, at 19–26.

of voting rights departed from the long-standing definition of “economic ownership” under the decoupling framework and the role of share prices in determining such ownership.¹¹⁸ Effectively, the Black Statement was proposing that the court accept an extremely narrow concept of “economic ownership,” one relating solely to the value of voting rights.

III. COMPLEX REALITIES AND THE ANALYTICAL FRAMEWORK FOR MODES OF INFORMATION: THE CHALLENGE OF FINANCIAL INNOVATION TO TRANSPARENCY-BASED GOVERNANCE MECHANISMS

A. OVERVIEW

The central mission of the SEC has been to spearhead efforts to ensure that corporations provide a robust informational predicate for private decision makers. A wide range of corporate governance mechanisms depends on a robust informational predicate, including the market for corporate control, institutional investor monitoring of management, and the use of equity-based compensation systems to align managerial and shareholder interests.

Unfortunately, as discussed, this public disclosure system has proven manifestly insufficient to meet the challenge posed by financial innovation. Part III addresses this matter, drawing in part on the analytical framework introduced in the 2012 *Too Complex to Depict?* article and refined and extended in the 2014 *Disclosure Universes and Modes of Information* article and the associated discussion. This Part also seeks to show how that analytical framework can help guide the SEC’s disclosure system in “depiction difficult” contexts and industries, including ones far removed from the world of finance.

The Introduction identified the four basic questions that this Part addresses. This Part concludes with an analysis of a new disclosure system that, in an important context, makes the road ahead for the SEC significantly more complicated and undermines the classic understandings as to ends and means of mandatory public disclosure.

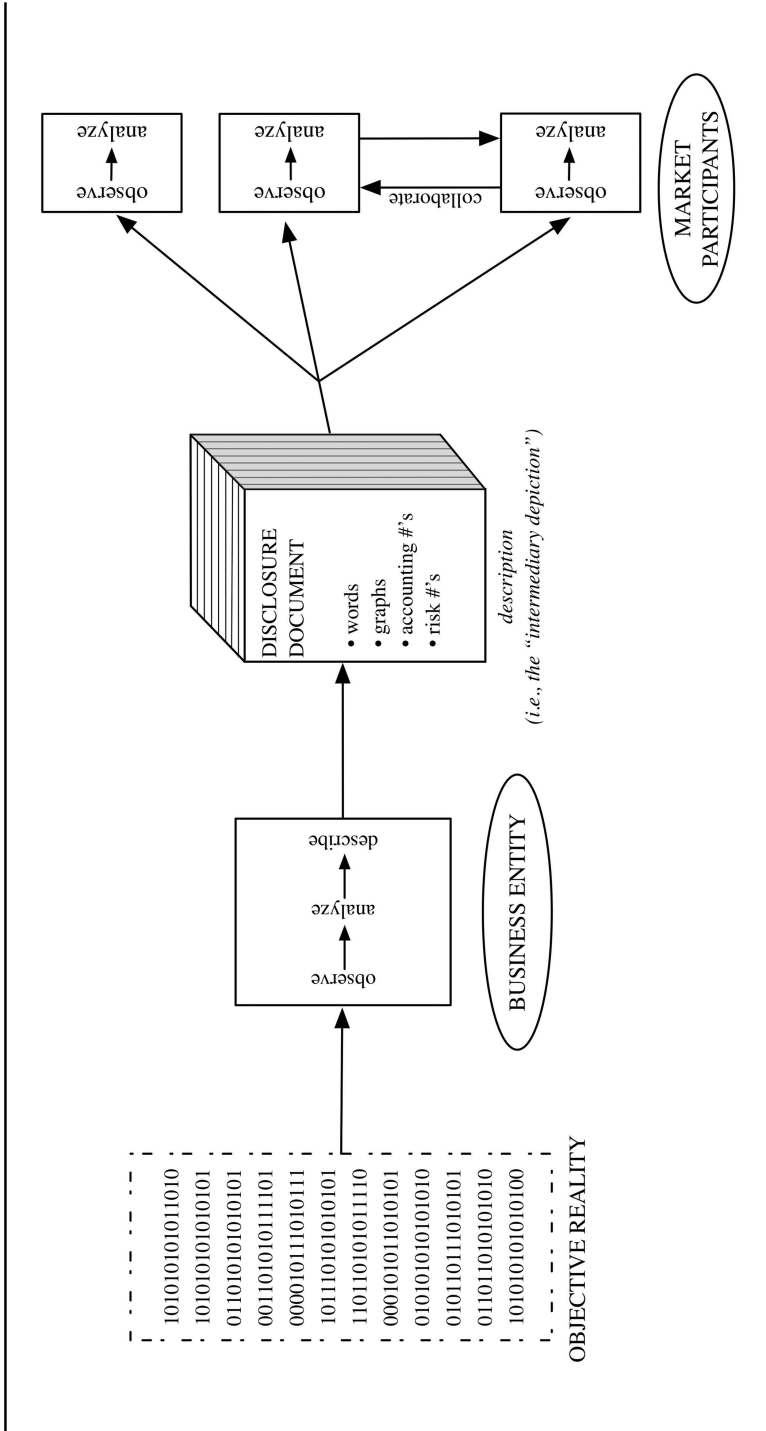
B. WHAT IS THE SEC’S CORE “MODE OF INFORMATION”?

From the SEC’s creation, its disclosure philosophy has been substantially implemented through a mode of information that relies on “**intermediary depictions**” of objective reality. An intermediary—such as a corporation issuing securities or reporting to its shareholders—stands between objective reality and the investor. The corporation observes and analyzes the objective reality, crafts a depiction of the pertinent aspects, and transmits its depiction to investors. This approach to information can be referred to as the “**descriptive mode**.”

Figure 1 diagrams the descriptive mode. “**Objective reality**” is set out as the rectangle at the left. By “objective reality,” I am referring loosely to the entire

118. *Id.* at 19–25.

Figure 1. Descriptive Mode. This diagram excludes information gathered and analyzed by market participants that does not flow from the business entity.



universe of virtually infinite, random, disorganized facts that exist irrespective of the presence of any observer, whether the facts are perceptible by anyone. The corporation is represented by the oval labeled “Business Entity,” situated between objective reality at the left and the market participants at the right. Staff members at, or retained by, the corporation must observe, analyze, and then describe what they believe to be the pertinent aspects of the objective reality.

The result of this “*observe-analyze-describe*” process at the business entity—the description, or “**intermediary depiction**”—is diagrammed as a book labeled “Disclosure Document” in Figure 1. In place of the entropy of objective reality is an organized description—a “story” with a beginning, middle, and end, based on words, graphs, accounting and risk numbers, and other “**depiction tools**.” The objective reality has been distilled and organized by the business entity, at much expense and based on the entity’s judgment and expertise as well as SEC requirements.

Market participants observe and analyze the intermediary depiction. Some market participants may do so on their own; others, such as the bottom two market participants, may collaborate. Market participants, however, cannot see for themselves all the pertinent aspects of the objective reality that the corporation relied on in generating the depiction. The corporation’s depiction will have to suffice, apart from whatever information market participants may have from other sources.

The Management’s Discussion and Analysis (MD&A), the “heart and soul of the [SEC’s] disclosure rules,”¹¹⁹ illustrates the reliance on intermediary depictions. According to the SEC, the MD&A is “intended to give the investor an opportunity to look at the company through the eyes of management.”¹²⁰ Key changes to the SEC’s disclosure system over the past eight decades, such as the “plain English” efforts, the EDGAR-izing of filings, and the integration of Securities Act and Exchange Act filings, have all been within the context of the descriptive mode.

The particulars of the information required to be provided under this descriptive mode are defined by general concepts (e.g., by the “materiality” standard) and by requirements pertinent to the specific factual context (such as would be picked up by individual Regulation S-K items). Public and private enforcement help ensure adherence to SEC requirements.

C. IS THIS “DESCRIPTIVE MODE” SUFFICIENT TO CAPTURE THE COMPLEX REALITIES CREATED BY FINANCIAL INNOVATION?

As a structural matter, there are two roadblocks to the ability of the descriptive mode to capture the objective realities being created by financial innovation.

119. Richard Y. Roberts, Comm’r, U.S. Sec. & Exch. Comm’n, Current Disclosure Rules (Dec. 14, 1994), available at <https://www.sec.gov/news/speech/speecharchive/1994/spch021.txt>.

120. Concept Release on Management’s Discussion and Analysis of Financial Condition and Operations, Exchange Act Release No. 24356, 52 Fed. Reg. 13715, 13717 (Apr. 24, 1987) [hereinafter MD&A Concept Release].

1. The Depiction Tools Roadblock

The first roadblock is that modern financial innovation is creating objective realities that are far more complex than in the past, sometimes so complex that they are beyond the capacity of the English language, accounting terminology, visual display, risk measurement, and other tools on which all intermediary depictions must primarily rely. Figure 1 shows how the business entity must engage in an “observe-analyze-describe” process to generate the intermediary depiction being provided to market participants. This depiction tools roadblock is situated at the “describe” phase of the process.

Consider the complexity of the objective reality pertaining to risk created by derivatives.¹²¹ With any derivative, the contracted payoff varies substantially with market conditions. Take, for instance, a simple fixed-for-floating interest rate swap in which a bank is the floating payer. A formal model is necessary to guess at likely and “maximum” exposures on the swap, even when excluding any consideration of credit risk. Moreover, this example is with a simple fixed-for-floating interest rate swap. What if the swap were more exotic? Furthermore, a bank will be simultaneously entering into multiple interest rate swap transactions, as well as other types of interest rate derivatives, currency derivatives, commodity derivatives, and so forth. In addition, the bank is likely to be engaged in foreign exchange trading, lending, and other activities.

How will these individual transactions, in a wide range of products, and these activities be correlated with each other in the future? Is historical data likely to be helpful and, if so, what historical periods should be looked at? To what extent are certain historical data, such as those relating to the violent moves associated with the May 6, 2010, “flash crash,” suggestive? How should models deal with such extreme events?

Modern risk measurement methodologies are, of course, intended to address questions such as these, but they very much remain works in progress. This will be illustrated by the 2012 JPM credit derivatives debacle to be discussed shortly.

Accounting is generally directed at providing historical, not prospective, numbers and is not explicitly directed at generating risk information. Even modern accounting efforts relating to new financial products primarily involve the reporting of their valuation at instants in time or the description of how past changes in their value should affect (or not affect) reported income over past periods. Long-standing accounting tools relating to risk are not especially helpful. They are oriented to the past and provide guides to the future only inferentially. Profitability measures related to past periods of time and the liquidity and insolvency risk ratios rely on historically based accounting inputs.

121. Sometimes, even the meaning of objective reality can be subject to several conceptions. See *infra* note 162 and accompanying text.

2. The Intermediary “True” or “Functional” Misunderstanding Roadblock

Financial innovation sometimes poses a second, more fundamental, roadblock to intermediary depictions. If a completely well-intentioned intermediary itself does not *in fact* understand the objective that the corporation is charged with depicting—or does not *function* as if it understands the reality—the depiction it offers is necessarily flawed. In terms of the “observe-analyze-describe” process set out in Figure 1, this misunderstanding roadblock is situated at the “observe” phase or “analyze” phase, or both, depending on the circumstances.

Some of the misunderstandings undermining the decision making can be characterized as “true” misunderstandings (i.e., no one at the bank may understand the true risk-return characteristics of a particularly complex new financial product or strategy). Other misunderstandings can be referred to as “functional” misunderstandings (i.e., one or more people at a bank may understand the true risk-return characteristics, but the bank acts *as if* it does not understand those characteristics).

A 1993 article *Misunderstood Derivatives*¹²² showed how such factors as cognitive biases in derivatives modeling, highly asymmetric compensation structures in the derivatives industry, the hidden and long-term nature of certain derivatives risks, the relative lack of financial sophistication on the part of senior management, and the peculiarities of financial “science” itself were likely to cause “sophisticated” financial institutions to take excessive risks, even from the standpoint of diversified shareholders, and to make outright mistakes. For the purposes of this Article, it is not necessary to explore the reasons for misunderstandings. It is necessary only to acknowledge that significant misunderstandings can occur.

I turn to the 2012 JPM credit derivatives debacle to show that such misunderstandings can indeed afflict even the most distinguished of financial institutions and to also show the effect of the depiction tools roadblock.

3. Illustration: The 2012 JPM Chief Investment Office Credit Derivatives Debacle¹²³

The evening of April 5, 2012, *Bloomberg* and the *Wall Street Journal* ran stories about Bruno Iksil, a London-based trader at JPM’s Chief Investment Office (CIO).¹²⁴ He had amassed credit derivatives positions so large that he was

122. Hu, *Misunderstood Derivatives*, *supra* note 2, at 1476–95.

123. *Too Complex to Depict?*, published in June 2012, offered a preliminary analysis of the JPM Chief Investment Office debacle based on the limited information available as of late May 2012. Hu, *Too Complex to Depict?*, *supra* note 12, at 1667–79. The *Disclosure Universes and Modes of Information* article, published in 2014, offered an analysis reflecting information that subsequently came to light. Hu, *Disclosure Universes and Modes of Information*, *supra* note 10, at 627–36. This Part III.C.3 draws on the foregoing articles.

124. Joe Weisenthal, *Strange: Multiple Reports of a JPMorgan Trader with an Epic Position in Credit Default Swaps*, *BUS. INSIDER* (April 5, 2012, 9:44 PM), <http://www.businessinsider.com/bruno-michel-iksil-2012-4>; Gregory Zuckerman & Katy Burne, ‘London Whale’ Rattles Debt Market, *WALL ST. J.*

disrupting prices in the \$10 trillion market.¹²⁵ However, the *Wall Street Journal* reported that “[o]ne person familiar with the matter said the bank has run tests that show Mr. Iksil’s positions likely will be profitable in any economic or market downturn.”¹²⁶

On April 13, JPM released its earnings for the first quarter of 2012 and, in connection with the release, reported that the value at risk (VaR) for its CIO was only \$67 million, calculated at a 95 percent confidence level.¹²⁷ The same day, Jamie Dimon, JPM’s CEO, dismissed the significance of the media accounts, referring to the issue as a “complete tempest in a teapot.”¹²⁸

Shortly after the April 13 earnings call, losses of roughly \$100 million a day began showing up on the CIO’s books. As the losses kept on growing, Dimon decided to postpone the Form 10-Q, set for release on April 27, until he could better understand the trades and their impact. On April 30, dissatisfied with the granularity of the daily reports he was getting, Dimon stated, “I want to see the positions! . . . Now! I want to see everything!”¹²⁹ When Dimon saw the numbers, he “couldn’t breathe.”¹³⁰

On May 10, about a month later, JPM filed its 10-Q. Dimon began a conference call the same day by highlighting problems at the CIO and stepping back from the VaR that JPM had reported on April 13.¹³¹ Dimon revealed a \$2 billion trading loss on the applicable positions and said that further losses could amount to as much as \$1 billion or more.¹³²

The Depiction Tools Roadblock. JPM’s central depiction of its CIO risk exposures lay in its VaR disclosures. The VaR reported on April 13 was \$67 million while that reported on May 10 was \$129 million, nearly double that reported earlier. JPM changed its methodology: the one it had used in its April 13 disclosure it deemed inadequate. So JPM went back to an older methodology, one it characterized as “more adequate,” which generated the \$129 million figure.¹³³

JPM did not describe the differences between the “inadequate” and the “more adequate” methodologies. During the third quarter of 2012, JPM decided to re-

(Apr. 6, 2012, 1:19 PM), <http://www.wsj.com/articles/SB10001424052702303299604577326031119412436>.

125. See *supra* note 124.

126. See Zuckerman & Burne, *supra* note 124.

127. The disclosure of this VaR appears on page 42 of a 51-page document entitled “Supplement to First Quarter 2012 Earnings Release.” *JPMorgan Chase & Co., Earnings Release Financial Supplement: First Quarter 2012*, JPMORGAN CHASE & CO. (2012), <http://sec.gov/Archives/edgar/data/19617/000119312512161533/d332188dex992.htm>.

128. *JPMorgan Chase & Co.’s CEO Discusses Q1 2012 Results: Earnings Call Transcript*, SEEKING ALPHA (Apr. 13, 2012, 3:30 PM), <http://seekingalpha.com/article/505581-jpmorgan-chase-co-s-ceo-discusses-q1-2012-results-earnings-call-transcript>.

129. Monica Langley, *Inside J.P. Morgan’s Blunder: CEO Dimon Blessed the Concept Behind Disastrous Trades; ‘Blood in the Water,’* WALL ST. J., May 18, 2012, at A1.

130. *Id.*

131. *Raw Transcript, 10-May-2012 JPMorgan Chase & Co. (JPM): Business Update Call*, JPMORGAN CHASE & CO., 2–3 (2012), <http://i.mktw.net/newsimages/pdf/jpm-conference-call.pdf> [hereinafter *JPM May 10 Conference Call*].

132. See *id.*

133. *Id.* at 2.

port on the basis of yet a third VaR model.¹³⁴ Prior-period VaR results were not recalculated using the new model, making it difficult for outsiders to gauge risk taking across time. The disclosure as to the methodology of this third VaR mode was limited.

The Intermediary “True” and “Functional” Misunderstanding Roadblock. JPM suffered from true misunderstandings as to two core issues: *first*, the core model that JPM used to gauge its risk exposures and, *second*, its hedging strategy and the portfolio associated with that strategy. The repeated reversals in the VaR methodologies reflect JPM’s difficulties in gauging its risk exposures. In terms of the hedging strategy, Dimon admitted on May 10, 2012, that, “in hindsight,” its new hedging strategy was “flawed” and that the portfolio was “riskier, more volatile, and less effective” as an “economic hedge than we thought.”¹³⁵ Dimon explicitly attributed the mistakes to the fact that the CIO’s trading strategy had become more “complex.”¹³⁶ A JPM management task force, after numerous interviews of current and former JPM employees and an examination of millions of documents and tens of thousands of audio files, concluded that neither the trading strategies nor their impact on risk-weighted assets “were fully understood by CIO management or the traders.”¹³⁷ JPM also suffered from functional misunderstandings.

As for functional misunderstandings, in early April (i.e., prior to Dimon’s April 13 “tempest in a teapot” characterization), the CIO delivered “what in hindsight were overly optimistic and inaccurate analyses regarding the potential losses.”¹³⁸ This view was based on a “Monte Carlo” analysis in which the person performing the analysis did not have confidence and which appears to have been selected by his supervisor specifically because it generated more positive profit-and-loss estimates.¹³⁹ In SEC cease-and-desist proceedings, JPM admitted that the “siloining” of information contributed to JPM’s “incomplete understanding of deficiencies” relating to the valuation problems occurring at the CIO.¹⁴⁰ The siloining was pervasive, occurring among employees below the senior management level, between employees and senior management, and between senior management and committees of the board of directors. What did not help is that some members of the board’s key Risk Policy Committee did not have strong backgrounds in risk management; one member was president of the American Museum of Natural History.

134. JPMorgan Chase & Co., Annual Report (Form 10-K), at 166 (Feb. 28, 2013).

135. *JPM May 10 Conference Call*, *supra* note 131, at 2.

136. *See id.*

137. REPORT OF JPMORGAN Chase & Co. MANAGEMENT TASK FORCE REGARDING 2012 CIO LOSSES 85 (Jan. 16, 2013) [hereinafter JPM TASK FORCE REPORT].

138. *Id.* at 89–90.

139. *Id.* at 90.

140. JPMorgan Chase & Co., Exchange Act Release No. 70458, Accounting and Auditing Enforcement Release No. 3490, Annex A, at 14 (ALJ Sept. 19, 2013) (order instituting cease-and-desist proceedings), available at <http://www.law.du.edu/documents/corporate-governance/sec-and-governance/press-jp-morgan/JP-Morgan-Chase-Co-Exchange-Act-Release-No-70458-Release-No-3490-2013-WL-5275772-Sept-29-2013.pdf>.

D. IF THIS DESCRIPTIVE MODE IS INSUFFICIENT, WHAT CAN BE DONE?

1. The Simplification of Reality: “White on White” Versus “The Garden of Earthly Delights”

Given the structural problems inherent in the descriptive mode, what can be done? There are at least two possible strategies:

The first is to simplify the objective reality itself. If reality itself were simpler, it would generally be easier to depict. In a physical sense, Kazimir Malevich’s painting *White on White* would be far easier to describe accurately, fully, and succinctly than Hieronymus Bosch’s triptych *The Garden of Earthly Delights*. The most radical kind of simplification would be to break up too big to fail banks, on the theory that if a bank is too complex to depict, it is too complex to exist. Although there may be depiction, managerial, regulatory, systemic risk, and other shareholder and societal benefits to breaking up such banks, such breakups would also involve extremely large private and public costs. I continue to refrain from taking a position on the wisdom of such outright breakups.¹⁴¹ There are more incremental simplification approaches as well, such as limiting the scope of bank activities (e.g., the Volcker rule) and promoting the simplification or standardization of financial products and associated contractual provisions (e.g., this would be one side effect to the Dodd-Frank mandatory clearing rules). Because the simplification strategy is in nature different from the informational issues being discussed in this Article, I will leave that strategy aside.

I will instead focus on the promise of also starting to systematically use two new modes of information. Neither the “transfer mode,” relying on “pure information,” nor the “hybrid mode,” relying on “moderately pure information” is susceptible to the depiction tools or the intermediary depiction blocks.

2. The “Transfer Mode” and “Pure Information”

Advances in computer and web technologies now make far easier an approach more focused on the “transfer” of objective reality itself—or, more precisely, information that is highly mimetic of objective reality and exists independently of any observer. It is no longer essential to rely almost exclusively on the descriptive mode. This approach can be called the “**transfer mode**,” and such information can be called “**pure information**.”

Figuratively, the intermediary need not always stand between the investor and an objective reality, recounting to the investor what the intermediary sees. If the intermediary thus “steps out of the way,” the investor may now be able to see for himself and to download the objective reality in its full, terabyte richness. With the intermediary out of the way, any true or functional misunderstandings of the intermediary would not taint the information provided. Moreover, because there

141. Cf. Gillian Tett, *The Banks that Are Too Complex to Exist*, FIN. TIMES (June 7, 2012, 10:19 PM), <http://www.ft.com/cms/s/0/65281562-b0c1-11e1-a2a6-00144feabdc0.html#axzz3OAS8M6cv> (the U.S. managing editor of the *Financial Times* stating that “if some banks today are ‘too complex to depict,’ then perhaps it is time to recognize that they are also ‘too complex to exist,’ as Prof. Hu says”).

are no intermediary depictions involved in this approach, the limitations of depiction tools disappear.

As illustrated in Figure 2, with the transfer mode, the business entity no longer stands between objective reality (on the left) and the market participants (on the right). The entity itself is not engaged in the “observe-analyze-describe” process that leads to an intermediary depiction for which the entity is legally responsible. With the transfer mode, the entity is involved only with respect to the mechanical task of, in effect, transmitting pertinent aspects of objective reality in the form of pure information. This information can be downloaded, observed, and analyzed by market participants.

To illustrate the concept of “pure information,” consider Mount Everest as the objective reality. Although Mount Everest itself cannot be transferred to a person sitting at his computer in Manhattan, pure information in the form of, for instance, a photo of Mount Everest can be. Such pure information flows largely from the inherent characteristics of Mount Everest itself and modestly from the process used to generate that information (e.g., the camera lens and the image processing software used by the camera and by the photographer). So long as the person at the computer is aware of the full particulars of the specific process used, the distortions, and other limitations of that process, he can isolate Mount Everest’s inherent characteristics from the artifacts that the process introduces.

At the financial institution level, bank regulators and the Financial Stability Oversight Council (FSOC) routinely receive or have access to massive amounts of pure information about bank holding companies.¹⁴² In 2014, the Federal Reserve set out a listing of twenty periodic reports that bank holding companies may have to file.¹⁴³ A 2014 FSOC listing of data collected solely from FSOC agencies consists of over 300 different forms and, using what appears to be three-point font, runs twenty-one pages.¹⁴⁴ At the financial transactions level, a new generation of pure information directly pertinent to derivatives is becoming available to the SEC and the Commodity Futures Trading Commission (CFTC) because the vast bulk of OTC derivative transactions will become subject to clearinghouse arrangements under Dodd-Frank.

Although the transfer mode avoids the problems with depiction tools and intermediary misunderstandings of the descriptive mode and can offer investors far more granular information, the transfer mode has its own issues.

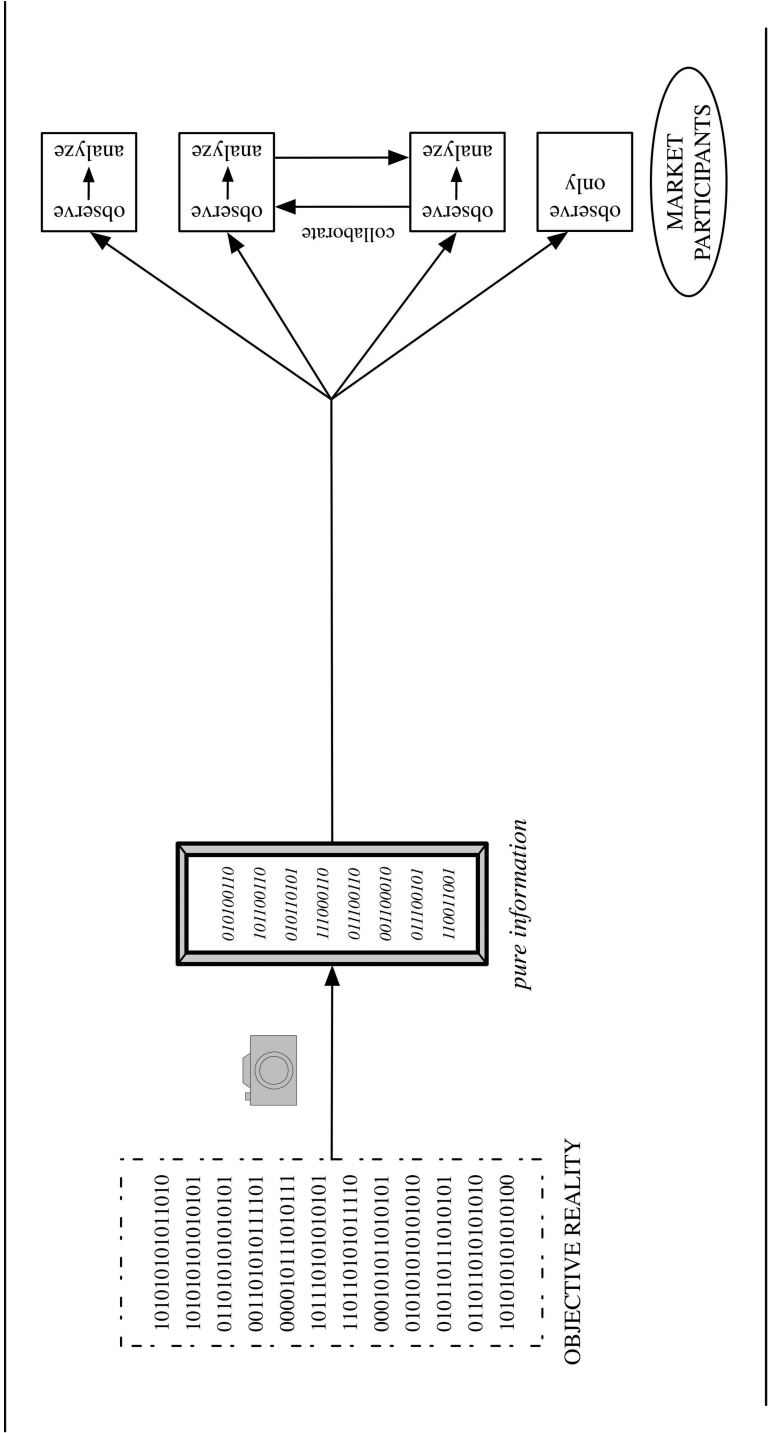
First, much of the pure information may be confidential, proprietary, or otherwise not appropriate for public disclosure. Existing uncertainties as to when such pure information would be available to the public also make difficult the full deployment of a transfer mode strategy.

142. See Hu, *Disclosure Universes and Modes of Information*, *supra* note 10, at 647–50.

143. See *Bank Holding Company (BHC) Financial and Structure Reports*, FED. RES. BANK SERVICES, https://www.frb.services.org/files/reporting/pdf/bhc_financial_and_structure_reports.pdf (last visited Feb. 17, 2015).

144. *Interagency Data Inventory*, OFFICE FIN. RES., <http://www.treasury.gov/initiatives/ofri/data/Pages/InteragencyDataInventory.aspx> (last visited Feb. 17, 2015).

Figure 2. This diagram excludes information gathered and analyzed by market participants that does not flow from the business entity.



Second, the task of observing and analyzing objective reality never goes away. It is shifted from the business entity that has the requisite expertise and is normally obligated to undertake this difficult task to market participants who have no such obligations, many of whom have neither sufficient incentive nor expertise to do so. Market participants will not be on a level playing field, except to the extent that market prices reflect the more informed purchases and sales by the more diligent and expert. “Big data” techniques can be difficult and costly. Third parties may, of course, observe and analyze the pure information and sell their insights to interested market participants.¹⁴⁵

3. The “Hybrid Mode” and “Moderately Pure Information”

The “**hybrid mode**” of information draws on elements of the descriptive mode and the transfer mode and results in “**moderately pure information**” being provided to market participants. This can occur in a number of ways. *Too Complex to Depict?* and *Disclosure Universes and Modes of Information* set out a variety of hybrid mode strategies. I focus on one example here: the “common bank models” approach. This example is illustrated in Figure 3.

Under this common bank models approach, a regulator comes up with a set of mathematical models intended to gauge the risk-return characteristics of a variety of trading and derivatives positions and a variety of other assets. These models are publicly disclosed. With respect to each bank, models developed by the regulator are applied to the bank’s own idiosyncratic assets. The risk numbers that result from using these regulator-developed models are provided to market participants. Use of the regulator-provided models is mandatory, irrespective of whether the bank believes the regulator’s models are any good and irrespective of whether the regulator’s models are in any way consistent with the bank’s own models.

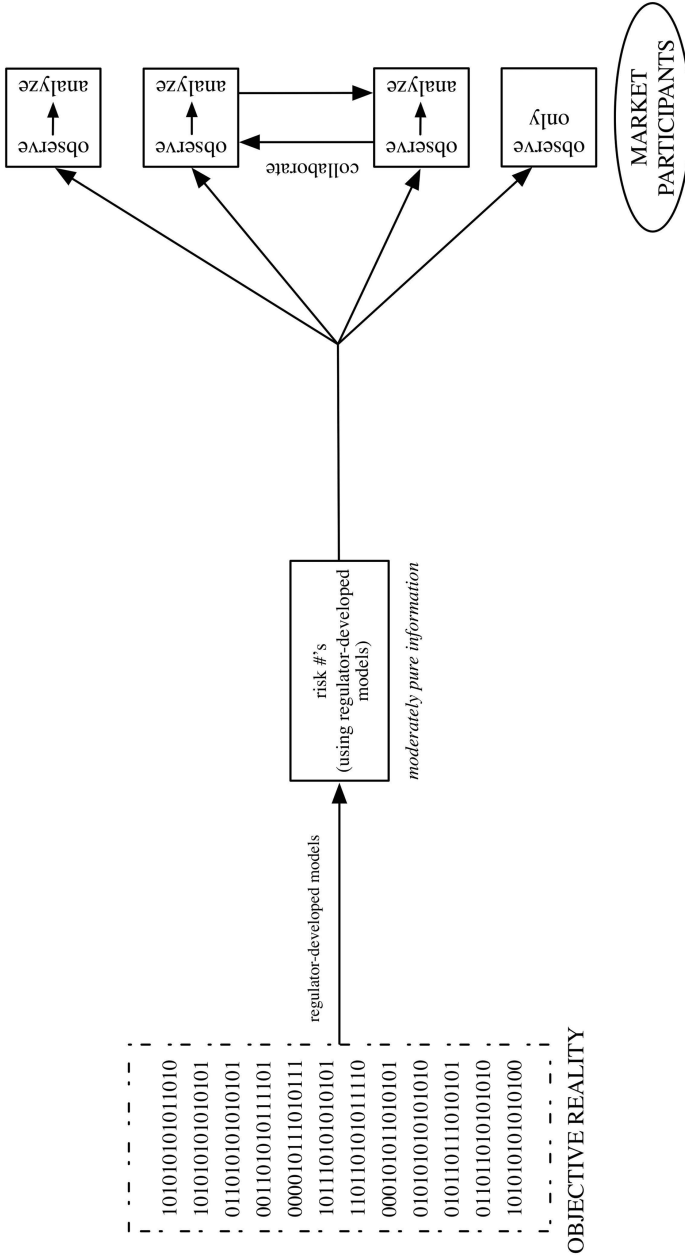
Here, in contrast to the descriptive mode, the business entity is not required, or even permitted, to rely on its own judgment and expertise to analyze and then describe the pertinent aspects of objective reality. As illustrated in Figure 3, with this common bank models approach, the regulator is intervening at the “analyze” stage of the normal “observe-analyze-describe” process. What the market participants see is not an “intermediary depiction” of the normal sort. The regulator is insisting that the analysis be based not on the bank’s own judgment (i.e., the bank’s own models) but rather on the regulator’s.

Because the banks are using identical models, market participants will find cross-bank comparisons to be far easier. Moreover, because those models are fully disclosed (in contrast to what happened in connection with JPM’s credit derivatives debacle), some market participants will be able to “reverse engineer” the reported numbers to some semblance of the objective reality.

145. The SEC recently suggested, for instance, how the public availability of certain standardized machine-readable data in the ABS context may encourage new entities to enter into the ABS credit-analysis industry dominated by the three top ratings agencies. See Asset-Backed Securities Disclosure and Registration, 70 Fed. Reg. 57184, 57203 (Sept. 24, 2014) [hereinafter 2014 Regulation AB II Adopting Release].

Figure 3.

Hybrid Mode (example: publicly disclosed regulator-developed models): This diagram excludes information gathered and analyzed by market participants that does not flow from the business entity.



Thus, some of the depiction tools problems that arose in the JPM CIO context are less likely to occur. Moreover, the roadblock associated with intermediary misunderstandings would not be present: JPM's models are not being used.

The common bank models approach also stands in contrast to the transfer mode. Here, the business entity is not transmitting pure information that may require significant expertise and resources to analyze. Instead, what is presented is a story about reality that is shaped by the common models and the bank-specific data. I have termed the information generated to be “**moderately pure information.**”

This common bank models approach—one illustrative example of the hybrid approach—is implementable. I have discussed how, with certain modifications, the Federal Reserve's periodic “stress test” program could be the basis for the above-described kind of moderately pure information.¹⁴⁶ One such modification would be for the Federal Reserve to begin fully disclosing the models used in connection with such stress tests, notwithstanding certain disadvantages to doing so.

E. WHAT ARE A FEW OF THE IMPLICATIONS FOR THE “DISCLOSURE EFFECTIVENESS” PROJECT THE SEC INITIATED IN APRIL 2014?

In April 2014, Keith Higgins, the director of the SEC's Division of Corporation Finance, announced the Division's “disclosure effectiveness” agenda.¹⁴⁷ The goal is to develop specific recommendations for updating the SEC's disclosure requirements. Among other things, the Division would review specific sections of Regulations S-K and S-X. This followed a staff report published in December 2013, which was mandated by the JOBS Act and which presented an overview of Regulation S-K and the SEC's initiatives over the years with respect to disclosure and registration requirements.¹⁴⁸

This is a very welcome development. The disclosure effectiveness of the SEC system could be significantly improved in the context of the long-standing descriptive mode as well as through moving to add the systematic deployment of the transfer and hybrid modes to the SEC's overall informational portfolio.

I offer below a brief and highly preliminary outline of a few of the implications of the “modes of information” analytical framework and associated discussion for the SEC disclosure effectiveness project. I will leave aside possible disclosure-related changes of the types advanced in *Decoupling I (Law Review Version)*, *Decoupling II (Penn)*, and *Decoupling II (EFM)*. Although the focus of this Article has been on financial innovation and banks, I also discuss below how the framework

146. See Hu, *Too Complex to Depict?*, *supra* note 12, at 1658–63; Hu, *Disclosure Universes and Modes of Information*, *supra* note 10, at 651–53.

147. Keith Higgins, Dir., SEC Div. of Corp. Fin., Disclosure Effectiveness: Remarks Before the American Bar Association Business Law Section Spring Meeting (Apr. 11, 2014).

148. See U.S. SEC. & EXCH. COMM'N, REPORT ON REVIEW OF DISCLOSURE RECOMMENDATIONS IN REGULATION S-K AS REQUIRED BY SECTION 108 OF THE JUMPSTART OUR BUSINESS STARTUPS ACT (Dec. 2013).

could help in non-financial innovation-related contexts and in non-financial services industries.

1. Improving Implementation of the Existing Descriptive Mode in Both Bank and Non-Bank Contexts

The elements of the SEC disclosure requirements most pertinent to the subject matter of risk and to banks specifically are badly out of date. The Guide for Statistical Disclosure by Bank Holding Companies was adopted in 1976, and it has remained largely unchanged even as epochal changes to the nature of banking, finance, and financial science occurred over the subsequent four decades.¹⁴⁹

Item 303 of Regulation S-K,¹⁵⁰ the Management's Discussion and Analysis of Financial Condition and Results of Operations, is applicable to all reporting entities. It was adopted in 1980, substantially refined later that decade,¹⁵¹ and supplemented by a bewildering stream of guidance of varying degrees of formality and legal import (e.g., "Dear CFO" letters, "CF Disclosure Topic 4," "Commission Statement," "Commission Guidance," "Compliance & Disclosure Interpretation," and "Interpretive Guidance").

The key SEC provision relating to the VaR issues central to the 2012 JPM credit derivatives debacle is the market risk rule, set out in Item 305 of Regulation S-K.¹⁵² That rule, applicable to all reporting entities, was adopted in 1997, and was never amended, notwithstanding substantial advances in the associated financial science.¹⁵³ This failure to amend is especially distressing because, at its adoption, the SEC promised that "as more standard risk measurement risk practices and methods of reporting market risk are developed," it would review the rule.¹⁵⁴

Updating these three elements related to risk should be a central aspect of the SEC's disclosure effectiveness project. *Disclosure Universes and Modes of Information* offers specific suggestions as to how to substantially revise the market risk rule (e.g., how to improve the use of VaRs and other techniques as depiction tools).¹⁵⁵ As noted in Part III.F, the Basel Committee, the Federal Reserve, and other bank regulators have undertaken efforts to require better public dis-

149. Exchange Act Release No. 12748, 41 Fed. Reg. 39007 (Sept. 14, 1976). As to subsequent revisions, see Hu, *Disclosure Universes and Modes of Information*, *supra* note 10, at 591 n.64. The current Securities Act and Exchange Act industry guides for bank holding companies are set out in *Industry Guides*, U.S. SEC. & EXCH. COMM'N, <https://www.sec.gov/about/forms/industryguides.pdf> (last visited Feb. 19, 2015).

150. 17 C.F.R. § 229.303 (2014).

151. See Management's Discussion and Analysis of Financial Condition and Results of Operations; Certain Investment Company Disclosures, Exchange Act Release No. 26831, 54 Fed. Reg. 22427 (May 24, 1989).

152. 17 C.F.R. § 229.305 (2014).

153. See Disclosure of Accounting Policies for Derivative Financial Instruments and Derivative Commodity Instruments and Disclosure of Quantitative and Qualitative Information About Market Risk Inherent in Derivative Financial Instruments, Other Financial Instruments, and Derivative Commodity Instruments, Exchange Act Release No. 38223, 62 Fed. Reg. 6044 (Feb. 10, 1997) [hereinafter *Market Risk Rule Adopting Release*].

154. *Id.* at 6048.

155. See, e.g., Hu, *Disclosure Universes and Modes of Information*, *supra* note 10, at 596–601, 637–39.

closures not only as to market risk but also to other risks that banks face. These ongoing efforts, and the bank regulator public disclosure system that became effective in 2013, take a far more sophisticated and comprehensive approach to risk than the SEC has thus far undertaken. They offer insights that the SEC would find helpful both in bank and non-bank contexts. The SEC should closely consider what the Federal Reserve and other bank regulators have done in terms of gauging risk for bank supervisory and bank capital adequacy purposes. A fuller discussion of these and other kinds of parallel disclosure universe matters is set out in Part III.F.

2. Moving Toward Portfolio Diversification and “Informational Neutrality” Across Modes of Information: Illustrations Involving “Depiction Difficult” Contexts and Industries

Each of the three modes of information, which together help define a spectrum of possible types of information, has virtues and faults.¹⁵⁶ However, the virtues and faults of each mode are different. This lack of “correlation” among the three modes calls to mind the advantages of portfolio diversification in making investments. I believe that the path forward lies in an eclectic, comprehensive conception of “information.” A portfolio of informational approaches is needed to help investors triangulate the objective reality, one that relies on both the descriptive mode and the transfer mode—and the full spectrum of approaches between these opposite extremes.¹⁵⁷

All three modes of information deserve equal consideration for the informational portfolio, even if regulators continue to invest most heavily in the descriptive mode. An overarching principle of “informational neutrality” across modes of information in this sense of equal consideration is needed.

As an initial step, certain roadblocks to portfolio diversification must be addressed. For instance, long-standing ambiguities relating to confidential treatment requests and the Freedom of Information Act should be clarified to realize the full potential of the transfer mode.¹⁵⁸ “Material contracts” often required to be filed with the SEC typically constitute pure information. Nevertheless, the matter of public availability of material contracts has long been an administrative backwater. The SEC’s Staff Legal Bulletin as to confidential treatment requests has no legal effect and departs from the specificity and definitiveness that would be seen in a formal rule.¹⁵⁹ This is a classic instance where “informational neutrality” across modes should apply: it would be difficult to imagine that a

156. As to the respective advantages and disadvantages of the transfer and hybrid modes relative to the classic descriptive mode, see Hu, *Disclosure Universes and Modes of Information*, *supra* note 10, at 639–54.

157. *Id.* at 654–60.

158. *Id.* at 644–47, 654–55.

159. The Bulletin itself states that it “is not a rule, regulation or statement” of the SEC and that the SEC “has neither approved nor disapproved its content.” DIV. OF CORP. FIN., U.S. SEC. & EXCH. COMM’N, STAFF LEGAL BULLETIN NO. 1 (WITH ADDENDUM) (rev. July 11, 2001), available at <http://www.sec.gov/interps/legal/slbcl1r.htm>. As to specificity and definitiveness, the Bulletin uses terms like

similarly critical element to understanding what would be required in SEC intermediary depictions would be handled in the same informal way.

The virtues of informational neutrality would be especially pronounced in “depiction difficult” contexts and industries (i.e., the contexts and industries most resistant to effective intermediary depictions). Depiction difficult contexts extend well beyond the context of too big to fail banks heavily exposed to derivatives. They extend to other financial innovation-related contexts—such as ABS—as well as to contexts that do not in any way involve financial products or financial services—such as the pension obligations of all corporations with defined benefit plans. Certain industries far removed from the world of finance—such as biotechnology and other research-intensive industries—may also be more prone to depiction difficulties and may benefit from pure information and moderately pure information approaches as well.

Too Complex to Depict? analyzed the ABS and pension funding contexts. Below, I include summaries of the prior analysis of those two contexts, and I additionally discuss research-intensive industries.

ABS turned out to have risk and other characteristics far different from what had been depicted, and such informational and other problems turned out to have extraordinary externalities. Financial academics have argued that “at the core” of the global financial crisis was “the discovery that these securities are actually far riskier than originally advertised.”¹⁶⁰

Even the most honest, well-intentioned issuers cannot overcome the structural limitations of intermediary depictions with respect to the two key characteristics of most ABS.¹⁶¹ “Pool assets” cannot be depicted with sufficient granularity, and the depictions are subject to wide issuer discretion, limiting the ability of investors to gauge the true characteristics of the individual loans in the pool and to make cross-ABS comparisons. As to ABS “waterfalls,” even objective reality, the essential starting predicate for all intermediary depictions, is subject to alternative conceptions. *Too Complex to Depict?* showed that there are slippages between the intended mathematical concept and the contractual provisions of the pooling and servicing agreement, between those contractual provisions and the computer program disbursing the cash flows among the tranches, and between the prospectus and both the contractual provisions and the computer program. Chairman James Doty of the Public Company Accounting Oversight Board has characterized such ambiguities as “absolutely terrifying.”¹⁶² The article proceeded to show how “pure infor-

“generally not appropriate” and empty phrases like the need to consider “facts and circumstances” and the “issuer’s business, financial condition and financial results.” *Id.*

160. Joshua Coval et al., *The Economics of Structured Finance*, 23 J. ECON. PERSP. 3, 3 (2009).

161. The analysis of ABS and how to move beyond intermediary depictions is set out in Hu, *Too Complex to Depict?*, *supra* note 12, at 1628–47.

162. See Hu, *Too Complex to Depict?*, *supra* note 12, at 1636–42 (discussion of alternative conceptions of objective reality); Auditor Independence and Audit Firm Rotation—PCAOB Rulemaking Docket Matter No. 37—Public Meeting of the Public Company Accounting Oversight Board 127–28 (Oct. 18, 2012) (unofficial transcript), available at http://pcaobus.org/Rules/Rulemaking/Docket037/2012-10-18_Transcript_Houston.pdf (statement of Chairman Doty relating to such discussion in *Too Complex to Depict?*).

mation” could help these and other pool asset and waterfall informational problems and related them to a pending SEC proposal to reform Regulation AB, the basic set of disclosure rules pertaining to ABS.

On August 27, 2014, the SEC adopted revisions to Regulation AB that would provide some pure information as to pool assets for certain ABS: asset-level data with enumerated data points, presented in a standardized, tagged data format called Extensible Markup Language.¹⁶³ However, the SEC still has not mandated pure information for the waterfall.

Pension reporting by companies has long been an especially depiction difficult context.¹⁶⁴ The financial reporting for defined benefit plans has proven to be frustrating for investors, and academics have found that the stock market is highly inefficient in the valuation of firms with severely underfunded pension plans. In 2011, a securities analyst team at Credit Suisse was creative and assiduous enough to identify and analyze a new source of relatively pure information on the exposure to multi-employer pension plans on the part of each of 367 companies in the Standard & Poor’s 500. Credit Suisse’s release of its analysis had an immediate impact on stock market prices. The day Credit Suisse disclosed that it had found a \$7 billion underfunding in Safeway’s multi-employer pension plan, Safeway’s stock was the biggest drag on the Standard & Poor’s 500, falling 3 percent.¹⁶⁵

Certain companies in research-intensive industries, like certain financial institutions in the financial services industry, can be depiction difficult and thus can be especially good candidates for using a diversified portfolio of informational modes. The key depiction tools in research-intensive industries may not be adequate to the task. Under both U.S. Generally Accepted Accounting Principles (GAAP) and International Financial Reporting Standards (IFRS), the internal costs related to the research phase of research and development are expensed as incurred.¹⁶⁶ Development costs are generally expensed as incurred under GAAP but are capitalized under IFRS when certain technical and economic feasibility conditions are met.¹⁶⁷ However, a significant part of the value of research-intensive companies, especially younger companies with few, if any, products, is in their research and development (R&D) pipeline.¹⁶⁸ U.S. accounting conventions require the expensing of R&D, and accounting numbers do not generally try to reflect how R&D investments may ultimately affect the company’s cash flows and earnings. In this respect, accounting as a depiction tool can be of limited value. Even a company’s more concrete kinds of intellectual property, such as its patents, can be difficult for investors to value. In a recent

163. See Regulation AB II Adopting Release, *supra* note 145.

164. See Hu, *Too Complex to Depict?*, *supra* note 12, at 1665–66.

165. See CREDIT SUISSE, *CRAWLING OUT OF THE SHADOWS* (Mar. 26, 2011).

166. ERNST & YOUNG, *US GAAP VERSUS IFRS: THE BASICS* 17 (Nov. 2012).

167. *Id.*

168. See, e.g., Tom White, *19 Lesser-Known Biotech Stocks with Robust Drug Pipelines*, YAHOO FIN. (Dec. 31, 2014, 8:59 AM), <http://finance.yahoo.com/news/19-lesser-known-biotech-stocks-135926987.html> (stating that a “critical factor in assessing pharmaceutical and biotech companies is the quality of their drug pipelines”).

communication to investors, a securities analyst assigned a value of \$2.25 billion to BlackBerry's patent portfolio, about double that of its previous estimate, which had used a different methodology that was "far too conservative."¹⁶⁹ Depiction tools other than accounting measures, such as the verbal information the company provides, can be very useful to investors but do not always yield quantitative insights.¹⁷⁰ Intermediary depictions in research-intensive industries face a depiction tools roadblock, as with too big to fail banks. Perhaps some changes to the current accounting conventions relating to the expensing and capitalization of R&D expenses may prove worthwhile, but this is not clear and, moreover, would be a very long-term project.

In research-intensive industries, there also may be a roadblock to good intermediary depictions that is a first cousin to the "intermediary misunderstandings" roadblock discussed in the too big to fail bank context. High technology companies may not know whether or when any given R&D project will lead to a product and, if it does, whether government approval is necessary for the product's introduction and, if the product can be introduced, how successful it will be. There are uncertainties piled on uncertainties, and the payoff may sometimes be long in the future. One recent study asserted that 90 percent of the money spent researching new treatments, conventional or biotech, goes to drugs that ultimately fail.¹⁷¹ Given such uncertainties, reasonable and sophisticated people could differ wildly in their assessments, even when faced with the same information. The intermediary depictions have to be "softer" in nature, and the value to investors of having pure information (i.e., access to the objective reality itself) and moderately pure information rises concomitantly.

What the SEC should require by way of pure or moderately pure information will necessarily evolve with advances in understanding what non-depiction-based information could help investors. Nevertheless, the nature of useful non-depiction-based information can vary widely by industry and, within an industry, by the stage a particular company may be in. Moreover, how should the benefits of customization be traded off for the benefits of cross-company comparability? Academics have, for instance, explored the usefulness of various proxies for the value of R&D.¹⁷² One 2008 academic study examined found that information on the quantity and quality of a firm's patents can be helpful in assessing the long-term financial performance of firms in the biotechnology industry.¹⁷³ How companies in research-intensive industries seek to convey the true value

169. Gus Papageorgiou, *Blackberry—Patent Portfolio Better than Expected*, SCOTIABANK EQUITY RES. DAILY EDGE, Feb. 7, 2013, at 2, available at <http://www.iam-magazine.com/files/Blackberry.pdf>.

170. Kirsten Ely, Paul J. Simko & L.G. Thomas, *The Usefulness of Biotechnology Firms' Drug Development Status in the Evaluation of Research and Development Costs*, 18 J. ACCT. AUDITING & FIN. 163, 163 (2003).

171. *Fever Rising: There Are Reasons to Hope that the Latest Biotech Boom Will Not Be Followed by Another Bust*, ECONOMIST (Feb. 15, 2014), <http://www.economist.com/news/business/21596557-there-are-reasons-hope-latest-biotech-boom-will-not-be-followed-another>.

172. See Ya-wen Yang, *The Value-Relevance of Nonfinancial Information: The Biotechnology Industry*, 23 ADVANCES ACCT. 287, 288 (2008) (citing four studies).

173. *Id.* at 287.

of their companies (or particular assets or projects) to outsiders (e.g., investors, securities analysts, underwriters, potential acquirers, potential joint venturers, and venture capitalists) is salient. In January 2015, Johnson & Johnson agreed to make detailed clinical trial data on its medical devices and diagnostic tests available to outside researchers, making it the first large device manufacturer to make such data public.¹⁷⁴ To what extent might other companies be comfortable they can overcome issues of proprietary information and begin providing this or other types of pure information to outside investors? The informational predicate associated with existing industry practices as to the valuation of individual research projects and as to the valuation of entire companies or specific research-related assets or projects must be carefully considered.

F. THE NEW BANK REGULATOR PUBLIC DISCLOSURE UNIVERSE AND THE SEC: DIVERGENT ENDS, DIVERGENT MEANS, AND THE NEED FOR RESOLUTION OF THE NEW MORPHOLOGY OF PUBLIC INFORMATION

Thus far in Part III, I have largely focused on informational challenges posed by financial innovation. I now offer a very brief overview as to how the primary governmental *response* to the informational challenge itself raises difficult issues.¹⁷⁵ This response significantly complicates the road ahead for the SEC regarding the disclosures it requires of banks and, more generally, raises fundamental theoretical and practical issues as to the ends and means of public disclosure.

Legal and economic issues involving mandatory public disclosure have centered on the appropriateness of either SEC rules or the D.C. Circuit review of SEC rulemaking. In this long-standing disclosure universe, the focus has been on the ends of investor protection and market efficiency and implementation by means of annual reports on Form 10-K and other SEC-prescribed documents. Information “material” from the standpoint of reasonable investors must generally be disclosed, and both public and private enforcement loom in case of failures to comply.

In 2013, these common understandings were undermined in a major context when a new system for public disclosure became effective, the first since the SEC’s creation in 1934. Major banks must now make public disclosures mandated not only by the SEC but also by a new system developed by the Federal Reserve and other bank regulators in the shadow of the Basel Committee on Banking Supervision (Basel Committee) and the Dodd-Frank Act.¹⁷⁶

174. Kate Thomas, *Johnson & Johnson Will Make Clinical Data Available to Outside Researchers*, N.Y. TIMES (Jan. 14, 2015), http://www.nytimes.com/2015/01/15/business/johnson-johnson-to-make-clinical-data-available-to-outside-researchers.html?_r=0

175. For a much fuller discussion, see Hu, *Disclosure Universes and Modes of Information*, *supra* note 10, at 601–18, 647–65. The concerns expressed related to the presence of parallel disclosure universes with divergent ends and means are starting to enter into public discussion. See, e.g., Gretchen Morgenson, *The Week that Shook the Fed*, N.Y. TIMES, NOV. 23, 2014, at B1, B6.

176. As to the bank regulator disclosure system in effect in 2013 and 2014, see Risk-Based Capital Guidelines: Market Risk, 77 Fed. Reg. 53060 (Aug. 12, 2012) (effective Jan. 1, 2013) [hereinafter *U.S. Basel 2.5 Adopting Release*]; Supervisory and Company-Run Stress Test Requirements for Covered Com-

This independent, bank regulator-developed system has ends and means that diverge from the SEC system. The bank regulator system is directed not at the ends of investor protection and market efficiency but instead at the well-being of the bank entities themselves and the minimization of systemic risk.¹⁷⁷ This new system, which stemmed in significant part from a belief that disclosures on the complex risks flowing from modern financial innovation were manifestly inadequate, already dwarfs the SEC system in sophistication as to the quantitative aspects of market risk and the impact of economic stress.

In this major bank context, the new morphology of mandatory public information is one that spans two parallel regulatory universes with divergent ends and means. The primary ends of the bank regulator disclosure system reflect its origins. The system's core component is rooted in efforts centered in Basel that go back to a 1988 accord on bank capital adequacy¹⁷⁸ and, more immediately, a 2004 framework recognizing the potential of market discipline in promoting the soundness of individual banks and the financial system (i.e., "Pillar 3" of Basel II).¹⁷⁹ The Basel Committee's efforts regarding public disclosure continue. In January 2015, the Basel Committee finalized its standards revising the Pillar 3 disclosure requirements.¹⁸⁰

In the United States, the first stage of implementing the Basel public disclosure aspect became effective in 2013 and centered on market risks.¹⁸¹ Below, I focus on these market risk-related disclosure requirements. In 2015, the second stage covers certain capital adequacy-related matters, including credit risk.¹⁸² The third stage will cover liquidity.¹⁸³ A second component of the bank regulator system is an artifact of the Dodd-Frank Act. Under the implementing rules, beginning in 2013, certain financial institutions must publicly disclose various "company-run" stress test results.¹⁸⁴

panies, 77 Fed. Reg. 62378 (Oct. 12, 2012) (effective Nov. 15, 2012) [hereinafter *Dodd-Frank Stress Testing Rule*]; Hu, *Disclosure Universes and Modes of Information*, *supra* note 10, at 603–04.

177. See Hu, *Disclosure Universes and Modes of Information*, *supra* note 10, at 601–07.

178. COMM. ON BANKING REGS. & SUPERVISORY PRACTICES, INTERNATIONAL CONVERGENCE OF CAPITAL MEASUREMENT AND CAPITAL STANDARDS (rev. Apr. 1998), available at <http://www.bis.org/publ/bcbscl11.pdf>.

179. BASEL COMM. ON BANKING SUPERVISION, INTERNATIONAL CONVERGENCE OF CAPITAL MEASUREMENT AND CAPITAL STANDARDS: A REVISED FRAMEWORK (COMPREHENSIVE VERSION) (June 2006), available at <https://www.bis.org/publ/bcbs128.pdf>.

180. BASEL COMM. ON BANKING SUPERVISION, STANDARDS—REVISED PILLAR 3 DISCLOSURE REQUIREMENTS (Jan. 2015).

181. See *supra* note 176.

182. See Regulatory Capital Rules: Regulatory Capital, Implementation of Basel III, Capital Adequacy, Transition Provisions, Prompt Corrective Action, Standardized Approach for Risk-Weighted Assets, Market Discipline and Disclosure Requirements, Advanced Approaches Risk-Based Capital Rule, and Market Risk Capital Rule, 78 Fed. Reg. 62018 (Oct. 11, 2013).

183. In September 2014, the three U.S. bank regulatory agencies issued a final regulation implementing the Basel III Liquidity Coverage Ratio, which requires subject organizations to maintain a minimum amount of liquid assets to meet short-term liquidity needs. Liquidity Coverage Ratio: Liquidity Risk Measurement Standards, 79 Fed. Reg. 61440 (Oct. 10, 2014). However, the adopting release did not include associated disclosure requirements but did note that the agencies "anticipate that they will seek comments on reporting requirements through a future notice, which will be tailored to disclose the appropriate level of information." *Id.* at 61518.

184. See *Dodd-Frank Stress Testing Rule*, *supra* note 176; Hu, *Disclosure Universes and Modes of Information*, *supra* note 10, at 616–18.

As for regulatory means, the general and specific functional elements of the new public disclosure system also diverge from the SEC's.¹⁸⁵ In terms of general elements, both the required quantum of information and enforcement mechanisms differ. The bank regulator's quantum involves the investor-oriented "materiality" standard used by the SEC (i.e., *TSC Industries, Inc. v. Northway, Inc.*¹⁸⁶) diluted somewhat to accommodate the interests of the banking entity itself. With the bank regulator system, private enforcement is not likely to be possible.

In terms of the specific elements, the bank regulator system reflects, among other things, far more sophistication about modeling and its limitations. For instance, bank regulators require models for VaRs to meet specified standards (and be approved), and VaRs are to be reported at a 99 percent confidence level with a ten-business-day holding period and extensive evidence as to the quality of the methodology.¹⁸⁷

At the end of the three-stage U.S. implementation, the Basel-related requirements will apply to market risk, credit risk, and liquidity (i.e., most bank risks). This vast domain is now—and prospectively will be—also fully subject to the SEC disclosure system.

Two sets of regulators with widely divergent ends now explicitly have full authority over the same informational territory as a formal matter.

In the long run, the structure of the new morphology may be unsustainable. As bank regulators extend their regulatory reach to cover disclosure requirements for capital adequacy and liquidity risks, the bank regulator system might, in effect, come to dominate public disclosure of bank risks. For structural and non-structural reasons, this eventual bank regulator dominance is a very real possibility.

The chances of this increase if the SEC does not quickly modernize its risk disclosure requirements. As noted earlier, the SEC has not revised its market risk rule since its adoption in 1997, and the SEC's industry guide for bank holding companies, adopted in 1978, remains largely unchanged. The SEC's disclosure effectiveness project will help address this obsolescence.

However, when the SEC modernizes its risk-related requirements, the chances of conflict with bank regulators increase. The regulatory objectives of the two systems not only diverge but sometimes conflict. There may be incoherence in the overall morphology of public information. A disclosure the SEC system deems essential for investor protection and market efficiency can be contrary to the bank well-being and system stability goals of the bank regulator system (and of the FSOC). This conflict manifested itself dramatically, even prior to the emergence of the new bank regulator system, in connection with whether AIG would comply with an SEC directive to make publicly available a schedule showing the names of certain contractual counterparties. The controversy ended up involving, among other things, a congressional hearing involving both the

185. See Hu, *Disclosure Universes and Modes of Information*, *supra* note 10, at 607–18.

186. 426 U.S. 438 (1976).

187. *U.S. Basel 2.5 Adopting Release*, *supra* note 176, at 53067, 53102, 53104, 53112.

sitting Treasury Secretary and his predecessor, the Federal Reserve Board's turning over 250,000 pages of documents to a congressional committee, and, ultimately, a committee report titled "Public Disclosure as a Last Resort: How the Federal Reserve Fought to Cover Up the Details of the AIG Counterparties Bail-out from the American People."¹⁸⁸

Another conflict during the global financial crisis illustrates the impact of differing regulatory ends. On September 18, 2008, at the height of the global financial crisis, the SEC issued an emergency order banning all short sales in the securities of "financial" firms.¹⁸⁹ The SEC had never prohibited short selling before, and this was inconsistent with the SEC's modern trend of relaxing short-selling limitations and its long-standing belief that markets should generally be left to set prices. Shortly before he left the SEC, Chairman Christopher Cox said that the ban was the "biggest mistake" of his tenure.¹⁹⁰ He stated that he did so under intense pressure from Federal Reserve Chairman Ben Bernanke and Treasury Secretary Hank Paulson.

The possible conflicts between the two disclosure systems extend beyond those stemming from divergences in regulatory ends to those associated with divergences in regulatory means. Information that would be considered "material" under traditional SEC understandings may not be similarly considered under the bank regulator's system. Some traditional securities lawyers might view this as adding bank well-being and financial stability exceptions to the general requirement that all material information be disclosed. The way in which bank regulators handle confidential treatment requests also reflects more deference to the interests of banks. On the enforcement side, it is unlikely that private causes of action will be allowed with respect to violations of bank regulator disclosure rules. Independent of the merits of government-only enforcement, there is the prospect of bizarre enforcement regimes. Class actions may be possible for SEC disclosure rules applicable to banks, but they would likely not be for bank regulator rules.

A fundamental question is at the root of the basic incoherence of the new morphology of public information. To what extent, and under what circumstances, should either or both sets of disclosure regulators balance the interests of investor protection and market efficiency against the interests of bank well-being and system stability? The question was not considered in the creation of the new bank regulator disclosure system. Ultimately, statutory resolution of this fundamental question is likely necessary.

In the short run, interim measures such as boundary setting—and promoting "informational neutrality" of judicial review of rulemaking across disclosure

188. For a discussion of this AIG public disclosure matter, see Hu, *Disclosure Universes and Modes of Information*, *supra* note 10, at 658–60.

189. See Henry T. C. Hu, *Efficient Markets and the Law: A Predictable Past and an Uncertain Future*, 4 *ANNUAL REV. FIN. ECON.* 179, 205 (2012); Hu, *Too Complex to Depict?*, *supra* note 12, at 1688–1701.

190. Amit R. Paley & David S. Hilzenrath, *SEC Chair Defends His Restraint During Financial Crisis*, *WASH. POST*, Dec. 24, 2008, at A4.

systems—might be useful.¹⁹¹ Some of the interim steps are incremental and need not involve statutory changes of any kind, much less statutory changes relating to the fundamental question of regulatory ends. At the most incremental and obvious level, insofar as the SEC's new disclosure effectiveness initiative addresses bank- and risk-specific matters, the initiative should fully consider the parallel public disclosure efforts of bank regulators.

Somewhat more ambitious would be steps that would contribute to a more synergistic relationship between the two disclosure universes. One possibility would be a form of boundary setting: risk could be sliced along quantitative/qualitative lines in the context of public disclosures of banks. Bank regulators, with their comparative and absolute advantage in quantitative matters, could focus on disclosures of a quantitative nature. Bank regulators have worked closely with both banks and bank regulators worldwide on the quantitative aspects of derivatives and other financial innovations since the 1980s. Indeed, these efforts helped foster the development of many risk-related models and techniques for the evaluation of such models. Bank regulators have not only far more extensive resources in general, but far more employees with Ph.D.s in economics and finance than does the SEC. Moreover, bank regulators are responsible for the substantive regulation of banks, and there is a highly interwoven relationship between the disclosure side and the substantive side. As to the key area of model risk, federal bank regulators have taken significant steps to develop and validate their own modeling of bank risks as well as steps in assessing the quality of the modeling and modeling process at individual banks.

The SEC has a comparative, perhaps absolute, advantage with respect to information of a qualitative nature related to risk. The SEC disclosure system's MD&A requirements have been fine-tuned over a generation. While primarily narrative in form, the MD&A is essential reading for anyone interested in the overarching risk characteristics of an entity. The bank regulators have no similar experience in structuring public disclosure requirements geared to capturing in words the trends and uncertainties at the heart of the MD&A.

Such interim measures would require the two sets of regulators to work in tandem and have the ability to modify their respective disclosure requirements in such directions. In certain circumstances, current law can present some headwinds. SEC efforts at rulemaking have suffered repeated rejections at the D.C. Circuit, usually on cost-benefit grounds.¹⁹² In the wake of the devastating 2011 *Business Roundtable* decision, the SEC made significant reforms to its rule-making process.¹⁹³ Most notably, in 2012, the Division of Risk, Strategy, and Financial Innovation (now called the Division of Economic and Risk Analysis) and the Of-

191. For fuller discussions of the concepts of boundary-setting and “informational neutrality” of judicial review as between the SEC and the Federal Reserve, see Hu, *Disclosure Universes and Modes of Information*, *supra* note 10, at 660–64.

192. See, e.g., James D. Cox & Benjamin J.C. Baucom, *The Emperor Has No Clothes: Confronting the D.C. Circuit's Usurpation of SEC Rulemaking Authority*, 90 TEX. L. REV. 1811 (2012); Bruce Kraus & Connor Raso, *Rational Boundaries for SEC Cost-Benefit Analysis*, 30 YALE J. ON REG. 289 (2013).

193. *Bus. Roundtable v. SEC*, 647 F.3d 1144 (D.C. Cir. 2011).

office of General Counsel issued formal guidance to the SEC's rulemaking divisions that much enhanced the roles of this Division and of cost-benefit analysis in rulemaking.¹⁹⁴ This guidance and associated increases in resources have helped improve the quality of rulemaking, but the risk of court challenge remains.

Moreover, the SEC is subject to statutory requirements in its rulemaking (e.g., to consider not only investor protection, but also the effects of rules on efficiency, competition, and capital formation). While the requirements are ambiguous (to say the least), there is a possibility they may limit the SEC's flexibility to move in certain directions that both the SEC and bank regulators may deem appropriate. The *Risk Fin/OGC Rulemaking Guidance* states that when a rule is being proposed for enhanced disclosure, the cost-benefit justification should generally include the following concepts:

[T]he likely benefits to be derived from the rule presumably would include better informed investment decisions. This, in turn, could result in better alignment of investors' objectives and investments, greater investor trust in the markets, lower risk premiums, and, ultimately, better allocation of capital.¹⁹⁵

The guidance also points to other benefits from such disclosure enhancements, including gains in economic efficiency from, among other things, "reduced incentive misalignment/reduced monitoring costs," reduced transaction costs, and the better allocation of capital due to better information sharing."¹⁹⁶ In a broad sense, the *Risk Fin/OGC Rulemaking Guidance* presumes that SEC disclosure rules need to center on investor protection and market efficiency.

In contrast, the Federal Reserve Board is generally not required to provide cost-benefit analysis with its rulemaking, and it is thus generally immune from the kind of cost-benefit analysis-based court challenges that have hobbled the SEC.¹⁹⁷ The cost-benefit analysis set out in the adopting release for the bank regulator disclosure system that became effective in 2013 consisted of roughly one page and nowhere explicitly mentions how the enhanced disclosure may affect either the interest of investors or market efficiency.

Statutory changes to accomplish "informational neutrality" in the judicial review of rulemaking across the two disclosure universes would be helpful. The Federal Reserve Board and the SEC would be able to more easily move in tandem in public disclosures pertaining to banks. In this particular context, perhaps consideration should be given to allow SEC rulemaking to begin enjoying the same freedom from judicial review on cost-benefit grounds that Federal Reserve rulemaking already enjoys.

194. DIV. OF RISK, STRATEGY & FIN. INNOVATION & OFFICE OF GEN. COUNSEL, U.S. SEC. & EXCH. COMM'N, MEMORANDUM TO STAFF OF THE RULEMAKING DIVISIONS AND OFFICES RE: CURRENT GUIDANCE ON ECONOMIC ANALYSIS IN SEC RULEMAKINGS (2012).

195. *Id.* at 10.

196. *Id.* at 10–11.

197. CURTIS W. COPELAND, CONG. RESEARCH SERV., COST-BENEFIT AND OTHER ANALYSIS REQUIREMENTS IN THE RULEMAKING PROCESS 16 (2001). As to Federal Reserve Board rulemaking under the Bank Holding Company Act of 1956, Pub. L. No. 84-511, 70 Stat. 133, see John C. Coates IV, *Cost-Benefit Analysis of Financial Regulation: Case Studies and Implications*, 124 YALE L.J. 882, 974–75 (2014).

CONCLUSION

Two theoretical physicists are lost at the top of a mountain.

The first theoretical physicist looks at a map, thinks about it, then turns to the other theoretical physicist and says, "I've figured it out. I know where we are."

"So where are we?"

"Do you see that mountain over there?"

"Yes."

"Well . . . THAT's where we are."¹⁹⁸

So where are we? Whether the source is Yogi Berra or a joke about theoretical physicists, observing the real world is important. This is especially true as reality becomes increasingly complex. Analyzing and describing reality can both be difficult; determining where we should actually go is most difficult of all.

Financial innovation has created complex realities that run counter to bedrock understandings of core mechanisms of corporate governance. Shareholders may vote to cause share prices to fall. Creditors may use the control rights intended to protect them to cause their borrowers to fail. A market for corporate control long premised on disclosure of large ownership stakes is being neutralized by statute. The long-standing SEC public disclosure system is no longer sufficient to capture objective realities, and a new public disclosure system not involving the SEC and not primarily directed at investor protection and market efficiency is now in effect.

The analytical framework for decoupling and the analytical framework for modes of information, sketched in highly abbreviated forms in this Article, can be starting points for determining where we are and where we must go. *So there we are or, at least, I think.*

198. See *Scientists Tell Us Their Favourite Jokes: "An Electron and a Positron Walked into A Bar . . ."*, GUARDIAN (Dec. 28, 2013, 7:05 PM EST), <http://www.theguardian.com/science/2013/dec/29/scientists-favourite-jokes>.

