European Financial Management, Vol. 14, No. 4, 2008, 663–709
doi: 10.1111/j.1468-036X.2008.00450.x

Debt, Equity and Hybrid Decoupling: Governance and Systemic Risk Implications

Henry T. C. Hu
University of Texas Law School, Texas
E-mail: hhu@law.utexas.edu

Bernard Black
University of Texas Law School and McCombs School of Business, Texas
E-mail: bblack@law.utexas.edu

Abstract

We extend here our prior work, which focused on equity decoupling (Hu and Black, 2006, 2007, 2008), by providing a systematic treatment of debt decoupling and an initial exploration of hybrid decoupling. Equity decoupling involves unbundling of economic, voting, and sometimes other rights customarily associated with shares, often in ways that may permit avoidance of disclosure and other obligations. We discuss a new U.S. court decision which will likely curtail the use of equity decoupling strategies to avoid large shareholder disclosure rules. Debt decoupling involving the unbundling of the economic rights, contractual control rights, and legal and other rights normally associated with debt, through credit derivatives and securitisation. Corporations can have empty and hidden creditors, just as they can have empty and hidden shareholders. 'Hybrid decoupling' across standard equity and debt categories is also possible. All forms of decoupling appear to be increasingly common. Debt decoupling can pose risks at the firm level for what can be termed 'debt governance' – the overall relationship between creditor and debtor, including creditors' exercise of contractual and legal rights with respect to firms and other borrowers. Widespread debt decoupling can also involve externalities and therefore create systemic financial risks; we explore those risks.

Keywords: *equity decoupling*, *debt decoupling*, *hybrid decoupling*, *empty voting, hidden ownership*, *equity swaps*, *credit default swaps*, *CDOs, disclosure, Securities and Exchange Commission*, *securitisation*, *systemic risk*

JEL classification: *G*18, *G*32, *G*34, *K*22

We have benefited from an extraordinary range of workshops and individual comments. Most are listed in Hu and Black (2008). For additional comments and examples, we also want to thank participants in the IMN 14th Annual Securities Lending and Repo Summit (Feb. 2008),

1. Introduction

Ownership of shares customarily conveys economic, voting, and other rights, and disclosure and other obligations. Longstanding legal and economic theories of the public corporation assume that the elements of this package of rights and obligations are generally bundled together – and in particular that voting rights are linked to an economic interest in the corporation, and usually held in proportion to that economic interest.

Similarly, ownership of debt customarily conveys a package of economic rights (to receive payment of principal and interest); contractual control rights (to enforce, waive, or modify the terms of the debt contract); other legal rights (including rights to participate in bankruptcy proceedings and to sue company directors and officers under securities and other laws); and sometimes disclosure obligations. Both law and contracting practice assume that the elements of this package are generally bundled together. It is assumed in particular that creditors are normally interested in keeping a solvent firm out of bankruptcy and (intercreditor conflicts aside) in maximising the value of an insolvent firm.

These assumptions can no longer be relied on. Both debt and equity decoupling are widespread and often undisclosed. In prior work (Hu and Black, 2006, 2007, 2008), we focused largely on equity decoupling.[1] Voting rights can be decoupled from economic interests quickly, at low cost, and on a large scale. Investors can have greater voting than economic ownership, a pattern we termed 'empty voting'. Conversely, investors can have greater economic than voting ownership. This economic ownership is often not disclosed, resulting in 'hidden ownership'. In many cases economic ownership can be quickly transformed to include voting ownership as well, a pattern we termed 'morphable ownership'. The combination of hidden and morphable ownership (together, 'hidden (morphable) ownership') can permit stealth takeover bids. Some acquirers have amassed 30–45% stakes in target firms without prior disclosure. Conversely, target companies can defend against bids by using decoupling to place votes in friendly hands. Controlling families can formally retain shares and voting rights, while selling off much of their economic stake. Standard measures of corporate ownership and control

ALI-ABA – Corporate Governance: The Changing Environment (Feb. 2008), Conference on Credit Risk Analysis, Mitigation and Transference (Feb. 2008), Baker & Botts – State and Federal Regulation of Hedge Funds (Mar. 2008), ABA – Delaware Law Forum (Mar. 2008), Conference on Shareholder Rights, Shareholder Voting, and Corporate Performance (Mar. 2008), New York University's Pollack Center for Law & Business (Apr. 2008), ISDA 23rd Annual General Meeting (Apr. 2008), World Bank - Conference on Secured Transactions and Insolvency (May 2008), Georgetown Law School - Conference on the History and Future of U.S. and Global Takeover Regulation (May 2008), ABA Section of Business Law and Deutsche Anwaltverein - Global Business Law Conference (May 2008), an anonymous referee, William Allen, Yakov Amihud, John Armour, Gary Bennett, Tom Briggs, Joseph Cialone, Darrell Duffie, Martin Flics, Adam Glass, John Grout, Mark Hynes, Michelle Harner, Kose John, Calvin Johnson, Simon Lorne, David Mengle, Matt Spitzer, and David Yermack.

[1] Readers interested in specific disclosure and other policy proposals for equity decoupling should consult our 'law' articles (Hu and Black, 2006, 2008). These articles provide citations for the legal rules and decoupling examples we discuss here. Our predecessor finance article, Hu and Black (2007), provides useful background for a finance audience. We generally do not repeat here the many decoupling examples discussed in our prior work.

(for example, Claessens, Djankov and Lang, 2000; Faccio and Lang, 2002) ignore derivatives-based decoupling strategies, and thus overstate economic ownership and understate the disparity between controllers' voting and economic ownership.

On June 11, 2008, as this article was about to go to press, the first U.S. court decision on the use of equity decoupling to avoid U.S.' 'large shareholder" disclosure requirements was rendered, in *CSX Corporation v. The Children's Investment Fund* (below, *CSX*). Below, we briefly discuss this opinion, which will likely curtail the use of equity decoupling to create large hidden ownership positions in U.S. companies.

The principal contribution of this article, however, involves debt and hybrid decoupling. There has been some prior writing on equity decoupling (in addition to our own work, see Brav and Mathews (2008), Kahan and Rock (2007), Martin and Partnoy (2005), Nathan (2007) and Neeman and Orosel (2006)). In contrast, there has been no systematic prior analysis of debt decoupling and its implications for debt governance and systemic financial risk. Credit default swaps and other credit derivatives now permit formal ownership of debt claims to be decoupled from economic exposure to the risk of default or credit deterioration. Yet formal ownership usually still conveys control rights under the debt contract and legal rights under bankruptcy and other laws. Securitisation of debt claims also often decouples economic risk from contractual control rights and bankruptcy rights.

There are important parallels between equity and debt decoupling. Creditors can have greater contractual or legal rights than economic exposure, a pattern we can call 'empty crediting'. They can hold empty or economic-only positions with no disclosure, not even the limited disclosure required for formal holders of debt. If it becomes important to hold formal contractual rights, economic-only positions can sometimes be morphed to include these rights ('morphable crediting'). In both areas, investors can have control rights yet have negative economic ownership (sometimes loosely called a "net short" position) and thus have incentives to cause the firm's value to fall.

Equity and debt decoupling can be combined, producing what one can call 'hybrid decoupling'. Investors can make bearish bets on a company's value by directly or indirectly shorting its shares, buying protection with credit default swaps, or both. They can use a long equity position to hedge a short debt position, or vice versa. Yet there is currently a disconnect between disclosure of equity and debt positions, with much more disclosure on the equity side.

Widespread debt decoupling can have important externalities, and can affect overall financial stability, both positively and negatively. The positives are well known – debt decoupling can contribute to economic efficiency and financial stability in a variety of ways, partly by allowing lenders to spread risk. We focus here on the negatives. Some of these are known, but some are not. Lenders' ability to shed risk weakens their incentives to assess and monitor debtors' repayment ability. Complex decouplings can pose model risks for both lenders and risk buyers, risks that become especially severe in times of market stress. New forms of intermediation raise new agency costs. Less obviously, decoupling also impedes what one might call 'debt governance' – the interactions between creditors and firms (or other debtors), such as negotiations to address loan terms and conditions. Financial restructurings are often made harder and sometimes infeasible, both in and out of formal bankruptcy. Spread across an economy, the 'freezing' of debtor-creditor relationships can increase systemic financial risk.

Widespread decoupling can also increase the economy's exposure to liquidity shocks. Lenders' business models evolve to rely on liquid risk-transfer markets. Borrowers can less easily renegotiate with lenders, and hence rely more heavily on ability to refinance.

And the resting place of credit risk can become hidden, which increases counterparty risk and can affect liquidity during financial downturns.

We focus on public companies. Part 2 of this article discusses equity decoupling, Part 3 discusses debt decoupling. Part 4 discusses hybrid decoupling. Part 5 discusses the systemic risk implications of widespread debt decoupling. Part 6 concludes. References in this article to legal rules are generic, since these rules differ between countries, but are intended to capture the main lines of regulation in the United States, at the EU level in Europe, and (with less confidence in details) a few other jurisdictions.[2]

2. Equity Decoupling

We summarise here the principal forms of equity decoupling. With limited exceptions, the rules governing public firms presume that ownership of shares is a meaningful concept and conveys a standard package of shareholder rights ('full ownership'). Some of these rights are economic, including dividend, liquidation, and appraisal rights under corporate law. Some rights are not purely monetary, including voting rights, director fiduciary duties, rights to bring suits and inspect corporate records, access to corporate proxy machinery, and so on. Some of these rules are based on formal record ownership (even where the record owner passes voting rights to an economic owner); some are based on who holds voting rights. However, persons who have economic ownership but not voting rights are regulated lightly or, often, not at all.

Over the course of the last century, the assumption that most shareholders held full ownership mostly worked. Special rules for record owners handled the most important exception. This assumption works no longer. The derivatives revolution in finance, the growth of sophisticated, lightly regulated hedge funds, and the related growth in the share lending market now make it easy to decouple voting rights from economic ownership, and to further decompose economic ownership – for instance, by separating appraisal or dividend rights from other economic rights.

2.1. *The elements of equity decoupling*

Because of the many ways in which decoupling can occur, it is useful to summarise its functional elements and specify some terminology. By '**formal voting rights**', we refer to the *legal* right to vote shares, including the power to instruct someone else how to vote. By '**voting rights**' or '**voting ownership**' of shares, we refer 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'.**

By '**economic ownership**', we will generally refer to the economic returns associated with shares. This ownership can be achieved directly by holding shares or, appraisal and some other rights aside, indirectly by holding a '**coupled asset**' that conveys returns that relate directly to those on the shares. Economic ownership can be either **positive**

[2] In the United States, we assume corporations are incorporated in Delaware. In the EU, we assume they are governed by local laws which conform to relevant EU directives; including the recent Transparency Directive and Shareholder Rights Directive. For specific countries where decoupling has occurred, we are reasonably familiar with the UK and somewhat familiar with Australia, Canada, France, Germany, Italy, Korea, New Zealand and Switzerland.

(the same direction as the return on shares), or **negative** (the opposite direction from the return on shares). Someone who owns voting shares has '**full ownership**': he has all of the rights and obligations associated with shares, including voting rights and economic rights. Economic-only ownership may also be **hidden** (exempt or arguably exempt from the disclosure rules that apply to full ownership, and not voluntarily disclosed), **morphable** (accompanied by the informal ability to acquire voting rights), or both (hidden (morphable) ownership).[3] Hidden (morphable) ownership can be seen as one form of '**soft parking**' of shares: arranging for shares to be held in friendly hands to avoid regulatory or other burdens of direct ownership, yet retaining informal access to the desired shareholder rights.

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. We will focus initially on decoupling of voting and economic rights, and return below to other decoupling possibilities. The central idea is that the coupled asset affects economic ownership, but leaves voting rights unchanged. One could also decouple voting and economic rights by holding shares and having a side contract relating to the votes, but this is not common. We refer to anyone who has substantially greater voting than economic ownership as an '**empty voter**'.

Investors may also hold '**related non-host assets**' – assets, often securities of another company, whose value is related to the value of the host company's shares. For example, if the host company plans to acquire a target, the target's shares are a related non-host asset. The combined return from host shares, coupled assets, and related non-host assets produces an '**overall economic interest**' in actions that affect firm value, which can be positive, zero, or negative.

Empty voting, as we have defined it, includes some longstanding arrangements for concentrating voting power. These include dual-class capital structures, with one class holding greater voting power relative to economic rights, and pyramids and circular ownership structures, which concentrate effective voting control in the hands of the person, family, or group at the top of the pyramid or the 'centre' of the circular ownership structure. The efficiency and regulation of these techniques are beyond the scope of this article. More subtly, one might see proxy voting advisors, such as Institutional Shareholder Services (ISS), as empty voters as well. These voting advisors have no direct economic interest in shares, yet wield substantial voting power through their advice to institutional investors. Analysis of voting advisors as empty voters is also beyond our scope.

2.2. *Reasons for equity decoupling*

Investors and firms can engage in equity decoupling for a wide variety of reasons, with differing efficiency properties.[4] We sketch here some of the principal reasons,

[3] Economic-only ownership, accompanied by morphable voting rights, is not truly 'economic-only'. We judged that this imprecision did not justify creating a specific term for this type of ownership.

[4] We use efficiency in a loose sense to refer to the overall social value of the firm, including investor claims, government claims (as tax collector), employee, customer, supplier, and community surplus, and other positive and negative externalities.

and offer representative examples. See Hu and Black (2007, 2008) for a review of the theoretical justifications for linking voting and economic rights and additional details on the examples.

2.2.1. *Efficiency enhancing, or potentially so*. Some forms of decoupling may be efficiency enhancing. For example, transactions in equity derivatives can sometimes involve lower transaction costs than equivalent transactions in shares, can permit arbitrage between related markets (thus improving pricing efficiency in both), and can permit transfer of risk to lower-cost risk-bearers.

There are both pro- and anti-efficiency arguments specific to empty voting. On the pro side, Christoffersen, Geczy, Musto and Reed (2007), argue that more informed voters may acquire votes from less informed voters. Brav and Mathews (2008) model the efficiency properties of the ability of empty voters, who have private knowledge of their voting position, to trade on that knowledge between the record date for a shareholder meeting (below, simply 'record date') and the voting date. In their model, this ability to trade can sometimes be efficiency enhancing, and sometimes not.

2.2.2. *Efficiency effects likely neutral, or nearly so*. In some cases, equity decoupling is likely to have limited efficiency implications. The difference between voting rights, at a shareholder meeting, based on voting ownership on the record date, and economic ownership on the shareholder meeting date, offers an example with limited efficiency implications, assuming that the shareholders who vote have incentives similar to those of shareholders who acquire ownership between the two dates.

Tax-motivated strategies offer a family of examples in which efficiency effects are likely to be limited. These include dividend capture strategies (Christoffersen, Geczy, Musto and Reed, 2005; Raghavan, 2007), avoidance of transaction taxes on share trading (in the UK, for example, trading in the UK version of equity swaps, known as contracts for differences (CFDs) avoids a tax on share transactions), deferral of capital gain (Sheppard, 2002), and avoidance by tax-exempt entities of unrelated business income tax (an issue in the USA). To first order, wealth moves from the government to the arbitrageur, with limited impact on social wealth. However, to second order, evasion undermines the horizontal and vertical equity of the tax system and may prompt the government to raise tax rates, with likely efficiency costs. Whatever one thinks of, say, dividend or transaction taxes, it is difficult to develop an argument for why ordinary investors should pay them, but clever hedge funds should not. Evasion also likely involves transaction costs.

2.2.3. *Avoiding ownership disclosure and other rules: efficiency uncertain*. In still other cases, decoupling is used to avoid regulatory requirements. A common goal has been to avoid rules requiring disclosure of share ownership. These rules are often based on formal voting rights, rather than economic ownership. A few jurisdictions (Australia, Hong Kong, Switzerland, and the UK during takeover bids) have modified their ownership disclosure rules to cover at least some economic-only positions, and further reforms are under consideration in various jurisdictions (Italy, the UK generally, and the USA). In the US, the *CSX* decision will likely limit the use of equity swaps, and potentially other equity derivatives, to avoid large shareholder disclosure rules. Thus, there may be a trend toward greater disclosure of equity swaps and other cash-settled equity derivatives. Still, as of today, in most jurisdictions, in most circumstances, economic-only ownership is generally not disclosed.

This ownership is often, as a practical matter, accompanied by morphable voting rights.[5]

On June 11, 2008, the first U.S. judicial opinion addressing hidden (morphable) ownership was rendered, in the CSX case. A proxy fight target (CSX Corporation) claimed that two hedge funds (The Children's Investment Fund and 3G Capital Partners), which held cash-settled equity swaps referencing CSX shares, violated the U.S. large shareholder ownership disclosure rules that apply to activist investors (often referred to as the Section 13(d) rules, after the relevant statutory section) by not disclosing beneficial ownership of the shares referenced in the equity swaps. The trial judge found that the two hedge funds had violated the disclosure rules, principally under the pertinent SEC "anti-evasion" rule. Loosely speaking, that anti-evasion rule deems as a beneficial owner of shares, anyone who creates or uses any "contract, arrangement, or device with the purpose or effect of divesting" such person of beneficial ownership "as part of a plan or scheme to evade the [13(d)] reporting requirements." The judge also found that even apart from the anti-evasion rule, there were "persuasive arguments" that these hedge funds held voting or investment power over the matched shares held by their dealers to hedge the equity swaps, though he did not rule on this question.[6]

The two hedge funds have said they will appeal. Subject to the outcome of the appeal, the CSX case will likely inhibit the use of equity swaps (and perhaps other equity derivatives) by activist shareholders to avoid Section 13(d) disclosure. A prospective user would fear being found by a court to have violated the SEC's "anti-evasion" rule, or to have voting or investment power over matched shares, or both. Whatever the outcome of the appeal, the CSX case will likely put pressure on the SEC to adopt disclosure rules that explicitly address economic-only ownership.

Decoupling can also be used to avoid other rules. For many of these rules, coverage is based on formal voting rights, and does not include economic-only ownership. Depending on the jurisdiction, avoidable rules can include:

- *Rules against 'vote buying'*. Corporate law rules against vote buying are generally not triggered by empty voting strategies (for details, see Hu and Black, 2006).
- *Mandatory bid rules*. Under these rules, a new controller must offer to buy all remaining shares at the price paid for the controlling shares. These are generally triggered by holding more than a threshold percentage of the target's shares, for which only enforceable voting rights count. Examples include *Victory-Unaxis* (Switzerland), *Banca Anton-veneta-Banco Populare* (Italy), *Fiat-Agnelli* (Italy), *SAI-Fondiaria* (Italy), and *John Fairfax Holdings-Brierley Investments* (Australia).[7]

---

[5] We discuss disclosure reforms and reform proposals Hu and Black (2008) (current to year-end 2007). For the 2008 Australian reforms, see Takeovers Panel (Australia) (2008).

[6] CSX Corporation v. The Children's Investment Fund Management (UK) LLP (Southern District of New York, June 11, 2008). For the views of the staff of the SEC's Division of Corporation Finance on the scope of the Section 13(d) rules, provided to the judge at his request, see Securities and Exchange Commission, Division of Corporation Finance (2008). The authors of this article were engaged, respectively, by counsel for the target and by counsel for the hedge funds to, among other things, offer views to the SEC on what advice the SEC should give to the court.

[7] For discussion of Banca Anton-veneta-Banco Populare and SIA-Fondiaria, see Kirchmaier and Grant (2005). The evasion can sometimes reach extreme proportions. For example, Victory currently holds a 68% economic stake in Unaxis (renamed Oerlikon), yet has kept

- *Statutory, contractual and other limits on voting power*. There can be a variety of limits on voting power, for particular firms or particular shareholders, arising from law or contract. Some countries restrict foreign ownership, the acquisition by anyone of a large percentage stakes, or both in particular industries (for example, banks, other financial firms, airlines, telecoms); some limit holdings by financial firms in non-financial firms some impose special rules on investment companies or holding companies (whose principal assets are securities of other companies), and so on. In the USA, some states limit the voting rights of shareholders who cross a specified ownership level; poison pill takeover defences limit stakes acquired without the target's consent. Many of these rules can be sidestepped through economic-only ownership. *Hyundai Elevator-Hyundai Merchant Marine* (Korea) offers an example involving holding company rules; *Endesa-Enel* (Spain) involves a strategic industry; *Kyivstar-Alfa Group* (Ukraine) and *Megafon-Reiman* (Russia) involve contractual limits on voting power.[8]
- *Income tax rules.* A family of strategies let shareholders hedge the risk on shares and obtain most of the shares' value in cash, while deferring income tax on gain. These strategies often involve some combination of short sales, over-the-counter derivatives, and sometimes other securities linked to the shares. Schizer (2001) and Sheppard (2002) discuss U.S. strategies. *Estee Lauder* and *Ciber* offer examples.[9]
- *Recapture of 'short-swing' trading profits*. Under US rules, company directors, officers, and 10% shareholders must forfeit any profits made by buying and then selling shares within a 6-month period. But only voting ownership counts toward the threshold. Thus, an investor can hold up to 9.99% in shares, have additional economic ownership through derivatives, and remain free to trade. Examples of this strategy include *Target-Pershing Square*.[10]

---

its share ownership below the 30% level at which a bid for minority shares would be required.

[8] In Hyundai Elevator-Hyundai Merchant Marine, Elevator arranged for outside investors to hold Merchant Marine shares which, if held by Elevator, would have made Elevator a holding company, with adverse consequences under Korean law. Elevator retained voting rights and repurchase rights. In Endesa-Enel, Enel made a takeover bid for Endesa, and acquired 25% economic ownership. Its direct share position was limited to 10% ownership of shares by Spanish law, without approval of telecom regulators. In Kyivstar-Alfa Group, Russia's Alfa Group owned stakes in two competing Ukrainian mobile telephone companies; an arbitration award required it to cut its indirect ownership in one of them, Kyivstar, to below 5%. It complied by selling half of its stake to a Kazakh company, but retaining the right to repurchase the shares. In Megafon-Reiman, Russian telecom minister Leonid Reiman held economic ownership of cell phone company Megafon through a Bermuda trust; he claimed that his lawyer, Mr. Golmond, owned the Megafon shares.

[9] In both *Estee Lauder* and *Ciber*, a major shareholder sought to cash out his holdings while deferring capital gains tax. Estee Lauder involved a prepaid forward short sale, to which the U.S. tax rules responded by restricting simple sales. Ciber involved a prepaid variable forward sale, in with Ciber's CEO shed most of his economic risk, while retaining enough (5% downside risk, some upside potential) to satisfy U.S. tax rules (as modified after Estee Lauder).

[10] In Target-Pershing Square, hedge fund Pershing acquired 12.6% economic ownership of Target, but kept its share ownership just under the 10% threshold for triggering short-swing profit recapture. Reuters, Hedge Fund Increases Its Stake in Target (25 December 2007).

- *Limits on short sales, or 'margin borrowing' against the value of shares*. Some countries restrict short selling of shares, or limit leveraged purchases of shares. OTC equity derivatives can provide a way around these restrictions.
- *Antitrust rules*. US rules require the antitrust regulators to consent in advance before one company can acquire a large stake in another. These 'Hart-Scott-Rodino' rules turn on ownership of voting securities; economic-only ownership likely does not count.

The efficiency properties of these avoidance strategies depend on the efficiency of the underlying rule. If the underlying rule is efficient, evasion is more likely to be inefficient, and vice versa. Yet the efficiency of particular rules is often unclear. For example, ownership disclosure rules can improve pricing efficiency because they give market participants better knowledge of the activities of large investors. Yet disclosure rules can also reduce incentives to search for undervalued shares, and hence reduce pricing efficiency. It is unclear, either theoretically or empirically, which disclosure rules are optimal. The efficiency of disclosure avoidance is thus also unclear.

2.2.4. *Separating ownership and control and takeover defences: efficiency doubtful*. Some uses of decoupling seem likely to be efficiency decreasing, at least on average. First, controllers can use decoupling to reduce their economic ownership while preserving voting control. Often, they can do so without paying the market penalty which accompanies explicit sale of low-voting or non-voting shares. As we discuss in Hu and Black (2007), there are both theoretical and empirical reasons to think that this separation is likely to be inefficient on average.

Second, decoupling can form part of a takeover defence strategy. Often, this involves a firm arranging for the votes to be held in friendly hands, thus avoiding the legal ban in many countries on firms voting their own shares, held by the firm or a subsidiary. Given the general support from academic studies for an active corporate control market (for surveys, see Gilson and Black, 1995; Becht, Bolton and Roell, 2004), these defences are likely to reduce efficiency, on average.

2.2.5. *Empty voting with conflicting or negative interests: efficiency doubtful*. A troubling empty voting possibility involves two firms whose fortunes are linked in some way, such as acquirer and target. In an extreme case, an empty voter can have negative net economic interest, the voter has incentives to vote to decrease company value, and often will have arranged to hold votes with that goal. There are several possibilities.

- *Target, its shareholders, or acquirer's managers influencing voting at an acquiring firm*. Any time an acquirer needs a vote of its own shareholders to complete an acquisition, the target and its shareholders may try to influence the acquirer's vote through empty voting. The target can potentially do so itself, either directly or through a friendly investment bank. Or the target's shareholders can do so (examples include *Perry-Mylan* and *Stark-M-Flex*).[11] The more the acquirer overpays, the more the

[11] In Perry-Mylan, hedge fund Perry Corp. held a 9.9% voting stake in an acquirer (Mylan), but no economic ownership, in order to support Mylan's bid for a target (King) in which Perry held a large stake. Perry had an incentive to cause Mylan to overpay for King. Stark-M-Flex involves a similar scenario, where a large empty voter of M-Flex (the acquirer) would gain on the target side (MFS Technologies) if M-Flex acquired MFS.

target's shareholders will gain. Or the acquirer's managers can obtain empty votes, using one of the soft parking strategies discussed below.

In a situation involving competing bidders, the target, its shareholders, or another bidder, may try to influence one of the bidders, either to encourage or discourage competition. In *Barclays-ABN-Amro-Fortis*, for example, there was intense demand for borrowing Fortis shares just before a Fortis vote which determined whether it would bid. By whom, and for what purpose, is unclear.[12]

- *Acquirer, its shareholders, or target's managers influencing target*. It is similarly possible for the acquirer, its shareholders, or the target's managers to buy target votes, and cast them in favour of a takeover bid. Examples involving parent firms casting empty votes at subsidiaries in favour of freezeouts include *Sears Canada* (Canada) and *Lindner Holding* (Germany).[13] *AXA-MONY* (U.S.) involves investors in the acquirer's convertible bonds casting empty votes of the target's shares.[14]
- *Other possibilities*. More generally, hedge funds and other activist shareholders fairly often oppose buyouts and freezeouts, seeking a higher price. Do some acquirers, when facing active opposition, directly or indirectly buy some target votes? Do deal opponents sometimes buy votes? Rumours swirl, but no one knows for sure.

  Finally, an empty voter may vote against a deal simply because it is net short. *Henderson Land* (Hong Kong) offers an extreme example in which a hedge fund was reported to have borrowed shares on the record date, voted them against a parent's buyout of outside shareholders, thereby killed the buyout, then sold the shares short, and profited from the price drop when the voting outcome became known.

2.3. *Greater voting than economic ownership: empty voting*

2.3.1. *Techniques used by outside shareholders*. Hedge funds and other outside shareholders usually accomplish empty voting by relying on coupled assets (such as equity derivatives or stock loan agreements) or related non-host assets. We discuss the principal strategies in our prior work and do not repeat that discussion here.

One core strategy for empty voting is to hold shares but hedge the economic return on the shares. Various hedges are available, including a short equity swap position,

---

[12] In Barclays-ABN-Amro-Fortis, the target, ABN-Amro, placed large orders to borrow shares of one of two competing bidders (Fortis), which needed shareholder approval to proceed with its bid. Whether ABN-Amro did so for its own account (which it denied) or for its clients is unclear.

[13] In Sears Canada, parent company Sears Holdings sought to buy the minority stake in subsidiary Sears Canada. The dealer-manager for its tender offer, Scotiabank, held a large voting stake in Sears Canada but no economic ownership (it held shares as matched shares to hedge an equity swap position with hedge fund Pershing Square). Scotiabank refused to unwind the swap and return the shares to Pershing, which opposed the bid, and planned instead to vote in favour of the offer. Scotiabank was blocked from voting by Canadian securities regulators. In Lindner Holding, a parent sought to use borrowed shares to reach the ownership threshold for completing a freezeout under German law. The German courts did not allow the borrowed shares to count toward the threshold.

[14] In AXA-MONY, AXA issued bonds which were convertible into AXA shares at a discount, but only if AXA acquired MONY. Investors who were long (short) these bonds had incentives to vote MONY shares for (against) the takeover, for reasons unrelated to the merits of the deal.

buying put options (or selling call options), or a short position on a single stock future. Examples are numerous; see the Appendix.

An alternate empty voting strategy is known as record date capture. This strategy involves borrowing shares in the stock loan market just before the record date and returning the shares immediately afterwards. Under standard borrowing arrangements, the borrower has no economic exposure to the company. Taxes aside, the borrower holds votes without economic ownership, while the lender has economic ownership without votes. Examples include *British Land-Laxey Partners and Barclays-ABN Amro-Fortis*.[15]

2.3.2. *Market impact and scale*. These empty voting strategies do not directly require market trading of shares. Thus, they can often be carried out, rapidly and on a large scale, with little impact on share price. Consider the share borrowing strategy. The empty voter borrows shares, and votes simply move from the share lender to the empty voter. No shares are bought or sold. This strategy will affect trading prices for shares only if the borrowing is on a scale which affects the access of short-sellers or hedgers to borrowable shares. Consider next the strategy (buy shares, hedge with equity swaps). An empty voter can buy shares from a dealer and simultaneously take the short side of an equity swap with the same dealer. The dealer can hedge by borrowing the shares (with no share trading) at the same time it creates the swap. The empty voter and the dealer are both hedged, and votes have again moved from the share lender to the empty voter, without market purchase or sale of shares. The transaction between client and dealer is off market.

The borrowing directly affects the share lending market, but for most companies, at most times, this market includes a large pool of borrowable shares, available at a quite modest price, on the order of 15–20 basis points per year (Cohen, Diether and Malloy, 2007), or less than 0.1 basis points (0.001%) per day.

The principal non-regulatory constraint on the scale of empty voting will often be the number of shares that can be readily borrowed. Hard numbers are not available, but a conservative estimate from a knowledgeable source in late 2007 is that for most large US public companies, in normal (non-takeover) circumstances, 20% or more of the outstanding shares can be readily borrowed.[16] A 2007 survey indicates that $3.6 trillion of US equities (17% of the combined NYSE and NASDAQ market capitalisation) were available for borrowing from just 16 lending banks (Risk Management Association, 2007). Additional shares are available from broker-dealers, institutional investors who run their own lending programs, and other sources. In the United Kingdom, data from the Governance for Owners consultancy from 2006 suggests that as much as 50% of the shares of firms in the Financial Times Stock Exchange (FTSE) 100 Index are generally borrowable (Butler, 2006). The U.K. Financial Services Authority estimates that in 2007, equity swaps represented 35% of U.K. market capitalization (Euromoney, 2008).

---

[15] In British Land-Laxey Partners, hedge fund Laxey was an economic owner of 1% of British Land's shares, but borrowed an additional 8% to support a proposal to break up British Land. We discuss Henderson Land and Barclays-ABN Amro-Fortis above.

[16] This estimate was provided to us by Irving Klubeck, President of the Securities Lending Division of the Securities Industry and Financial Market Association., the leading trade association for US broker dealers, and a Managing Director of Pershing LLC.

2.3.3. *Soft parking of votes by the corporation itself*. Empty voting is not limited to shareholders. Firms themselves can use decoupling techniques to provide insiders or other friendly third parties with votes on the firm's own shares, yet little or no economic exposure. In doing so, firms are effectively voting their own shares. This vote parking is often 'soft' and based on informal expectations about how the shares will be voted. A harder right to direct how shares are voted could be problematic under corporate law rules which bar a company from holding and voting its own shares, directly or through a subsidiary. Often the goal is to ward off changes in control. The basic strategy is for company insiders to arrange for voting ownership to be held by someone else, who has incentives to vote pro-management. Shares can be parked with a variety of people, in a variety of ways.

One strategy involves the corporation acquiring economic ownership of its shares through an equity swap or other equity derivative contract, say with a derivatives dealer. In substance, the corporation has repurchased its own shares; they are no longer economically owned by anyone. But the shares remain outstanding and votable. By whom?

Usually the dealer. The dealer will be short on the swap and will usually hedge its economic risk, often by holding 'matched shares', so that gain (loss) on the matched shares offsets loss (gain) on the equity swap. Assuming that the dealer holds matched shares and votes as company insiders want, the company (or the insiders, it matters not which) can be seen as an empty voter. The scale of the transaction could well be large; the principal limit is the corporation's financial ability to repurchase its own shares. The dealer has incentives to hedge with matched shares (thus obtaining votes) and vote as its client would want, to stay on good terms with this client and to preserve a reputation for treating clients well. The dealer will presumably understand that the company is acquiring swaps rather than shares for the purpose of leaving votes in friendly hands. Examples include *Portugal Telecom-Sonaecom* and *Portugal Telecom-PT Multimedia*; we are also aware of one major derivatives dealer using PowerPoint outlines to market soft parking strategies to European corporations.[17]

Depending on context and amount, these strategies will often fall outside disclosure rules, and hence can be fully or partly hidden from investors. For example, the firm's use of equity swaps to effectively repurchase its own shares might well escape disclosure, where a direct purchase would be disclosable. The firm's informal control of now-empty votes will also be hidden. If a company lends treasury shares, the company's ownership of its own shares is disclosed, but not the loan and hence not the existence of voting rights.

Because these strategies are hidden, we don't know how common they are. But they offer one possible explanation for the finding by Listokin (2007) that US managers almost invariably win close votes. If managers anticipate a close vote, they may arrange for votes to be held by friendly hands, and then call in enough votes to win once they see how the voting is going.

Other variations on the soft parking theme are also possible. These include: (i) a forward transaction with a friendly shareholder, in which the company agrees to repurchase shares at a predetermined price, *after* a crucial vote; (ii) a nominal 'sale' of

[17] In Portugal Telecom-Sonaecon, Portugal Telecom attempted to park votes with Barclay's, as part of its defence against Sonaecom's takeover bid. In Portugal Telecom-PT Multimedia, Portugal Telecom used equity swaps with Barclay's to hold 10% of the shares in its subsidiary, PT Multimedia.

'treasury shares' – shares which a company has repurchased – to a friendly dealer, with the company taking back an equity swap or otherwise protecting the dealer against loss; and (iii) a simple loan of treasury shares to a friendly holder. *UBS-Ebner* (Switzerland) and *MOL-OMV* (Hungary) offer examples of forward share purchase contracts and the loan of treasury shares, respectively.[18]

Netherlands firms have long used a variety of soft parking strategies, including (i) issuing shares to a company-controlled foundation, which then sells depositary receipts to the public with limited voting rights;[19] and (ii) giving a call option to a company foundation, which the foundation can exercise to acquire high-voting shares if a threat to control arises (*Stork* is a recent example).[20]

2.3.4. *Employee stock ownership plans; restricted stock plans*. A company can also arrange for friendly, partly or mostly empty votes, through employee stock ownership plans (ESOPs) and like plans, and by granting restricted shares to its executives. Employees can be expected to support management against a hostile takeover, because they fear a threat to their jobs, rightly or not (Gordon and Pound, 1990). Higher employee ownership indeed predicts lower probability of takeover (Rauh, 2006).

Employee ownership relates to empty voting in two principal ways. One way to structure an ESOP is to contribute a block of stock to an ESOP, with the shares to vest over an extended period. All shares carry voting rights, even though employees economically own only the vested shares. The trustees for the ESOP can either decides how to vote the unvested shares, or the ESOP documents can provide that unvested shares will be voted proportionately to the votes cast by employees on vested shares. In the former case, the trustees are empty voters, in the latter case, the employees are partially empty voters, because they have more voting power than economic ownership. Examples involving use of ESOPs as a takeover defence include *NCR-AT&T* (where NCR created an ESOP which conveyed 228 votes for each vested share); *Quanta Services-Aquila; LVMH-Gucci*; *Dunkin' Donuts-Kingsbridge Capital*; *Polaroid- Shamrock Holdings*; and *Macmillan- Maxwell Communications*.

A second possibility for empty voting arises from grants of restricted shares, often principally to managers and key employees, which vest over several years. Both vested and unvested shares usually carry voting rights; this will often make the holder a partially empty voter.

---

[18] In UBS-Ebner, UBS fought off a proxy fight by Martin Ebner in part by using forward contracts to park votes with two major shareholders (Loderer and Zgraggen, 1999). In MOL-OMV, Hungarian firm MOL defended against a bid by OMV by repurchasing almost half its shares and then lending most of the repurchased shares to two Hungarian banks, who were expected to vote as MOL management wished.

[19] The holders of depository receipts can instruct the foundation on how to vote on ordinary matters, but not with regard to a takeover bid. The foundation can vote all shares in a takeover situation, and can otherwise vote shares for which it receives no instructions. See van der Horst and van Uchelen-Schipper (2007).

[20] In Stork, two hedge funds acquired 31% of Stork's shares. In response, the Stork Foundation exercised an option (granted back in 1990) to acquire preference shares with a high ratio of votes to economic rights; which represented almost half of Stork's total voting rights. The Dutch courts disallowed the issuance.

2.4. *Economic-only ownership*

Empty voting positions involve greater voting than economic ownership. The opposite pattern of economic-only ownership – greater economic rights than formal voting rights – is also common. Economic-only ownership can often be used to achieve hidden ownership, morphable ownership, or both.

2.4.1. *Hidden and morphable ownership*. Some hedge funds and other investors have sought to avoid ownership disclosure rules that turn on voting rights or on full ownership of shares by taking the long side of an equity swap contract, with a derivatives dealer. The dealer will typically hedge its exposure, often by holding matched shares. Without more, the dealer is now an empty voter – it has voting rights but no economic interest. The investor has economic-only ownership, but no formal voting rights.

However, if the investor later wants to vote, it might well be able to return to the dealer, unwind the swap, and simultaneously purchase an equivalent number of shares either from the dealer or in the market, and thus obtain voting rights to accompany economic owership. Practices vary, but the dealer may be willing to sell the matched shares directly to its client to accommodate its client's request. *Perry-Rubicon* offers an example.[21] Alternatively, an investor may ask its dealer to vote as it would have voted, and the dealer may oblige. Practices again vary, but *London Stock Exchange*, *Marks and Spencer* and *Canary Wharf* offer UK examples.[22] Examples of hidden ownership are numerous; see the Appendix.

2.4.2. *Avoiding other rules*. Disclosure rules are only one of a number of rules which can often be avoided by holding economic-only ownership. We discuss other possibilities above in Section 2.2.

2.4.3. *Hidden takeover bids*. Decoupling, plus the often hidden nature of economic-only ownership, sometimes makes it possible for a takeover bidder to acquire a large, sometimes effectively controlling stake in a target, without public disclosure. The takeover battle may be essentially over, before it has begun. Several recent European takeovers involve sudden emergence of a bidder with close to effective control of the target, including *Scor-Converium* (first disclosure at 33% ownership), *Vekselberg-Sulzer* (first disclosure at 32%), *Victory-Laxey-Saurer* (first Victory disclosure at 45%), and *Victory-Unaxis* (first disclosure at 30%). Several of these examples involved Swiss targets; Swiss regulators have since responded by requiring disclosure of most forms of economic-only ownership.

In the U.S., initial public disclosures have not yet been at Swiss levels. However, the Jana Partners and Castlerigg hedge funds recently made their first disclosure of a stake in CNET at 21% ownership, and The Children's Investment Fund and 3G Capital

---

[21] In Perry-Rubicon, hedge fund Perry held a large, disclosed stake in Rubicon, sold it to derivatives dealers and acquired swaps instead to avoid disclosure, then terminated the swaps and reacquired the shares in order to vote at a shareholder meeting.

[22] In Marks and Spencer and Canary Wharf, hedge funds held equity swaps and favoured a takeover bid; their dealers held matched shares and supported the bid. In London Stock Exchange, several hedge funds, together holding 23% economic ownership, opposed NASDAQ's bid; their opposition was seen as crucial to LSE's defence; that they held swaps rather than shares was treated as a minor matter.

Partners held a similar stake when they disclosed their positions in CSX. As discussed above, the *CSX* decision will affect US practices.

A variation on this theme involves a hedge fund, which does not want full ownership itself, buying a large stake, perhaps 20–30%, and announcing this. Potential acquirers will understand that the stake is for sale at the right price to a takeover bidder. One example is *Victory-Laxey-Saurer*, where Laxey Partners initially acquired 23% of Saurer. Victory Industrial acquired over 20% of Saurer separately, then bought Laxey's stake and announced that it held 45% of Saurer. Others include *Laxey-Implenia* (Laxey holds 23%), *Converium-Scor* (Martin Ebner accumulated 20% of Converium, then sold his position to Scor), and *Stork* (the Centaurus and Paulseon hedge funds hold 31%).

2.5. *Unbundling other aspects of ownership*

While the precise rights depend on each country's rules, full ownership of shares commonly conveys a package of rights, including the following:

- fiduciary duties owed by directors and officers to shareholders under corporate law, and the right to sue to enforce these fiduciary duties;
- disclosure obligations of companies, directors, officers, underwriters, and accountants under securities law, and the right to sue to enforce these obligations;
- the right to inspect the company's books and records;
- the rights to nominate directors and to present resolutions at a shareholder meeting, and perhaps to include nominations and resolutions in the company's circular for its annual shareholder meeting;
- several rights that can be seen as components of economic ownership:
    - appraisal rights;
    - rights to receive dividends;
    - pre-emptive rights; and
    - rights to be paid in liquidation (after everyone else).

For each of these rights, one must ask: How can this right be decoupled from others? What impact does decoupling of some rights, such as economic ownership from voting ownership, have on other rights? Which rights can be exercised by voting-only owners (independent of economic interest), and which by economic-only owners (independent of voting rights)? The answers are complex, and often unknown. We sketch here some elements of the complex landscape, focusing on US rules.

Fiduciary duties under corporate law and related rights to bring suit. Can holders of economic-only rights, such as holders of equity swaps, sue to enforce the fiduciary duties owed by officers and directors to the corporation and its shareholders, much as shareholders can? We don't know the answer. Our tentative view is that economic ownership should provide standing to bring a derivative suit, at least when the suit relates to the firm's economic value. The answer for direct suits is less clear, because allowing economic-only owners to sue could expand the ranks of potential plaintiffs, and thus damages.

How about empty voters, who hold shares but have hedged their economic ownership. 'Empty suing' is permitted, because courts normally don't ask whether apparent

ownership is hedged. The *Deephaven* case offers an example.[23] But perhaps this should change – a better approach might be for plaintiffs to be required to routinely disclose net economic ownership, and for a positive stake in the firm to be necessary for the plaintiff to have standing.

Disclosure obligations and related rights to bring suit. Companies' disclosure obligations typically flow to all holders of the company's securities. Does this include persons who hold economic-only rights, say through equity swaps? The answer in the United States is – it depends. Holders of 'security-based swap agreements' are protected against company misrepresentations and omissions by general antifraud rules, but are not protected by the specific, pro-plaintiff liability rules available to purchasers in public offerings of securities. Thus, an economic-only owner, through equity swaps, be a plaintiff, and potentially a lead plaintiff, in a securities class action based on general antifraud rules, but not in an action based on public offering rules. Conversely, can empty voters bring securities lawsuits? Similar to fiduciary duty suits, courts currently don't ask whether apparent ownership is hedged, but perhaps they should.

The right answers are not obvious. An investor who holds equity swaps is harmed by misdisclosure, just as if the investor held shares directly. Yet if the swaps were acquired from a dealer who hedged with matched shares, the dealer has suffered no economic loss, yet can also sue. Similarly, if shares are borrowed; both the borrower and lender are likely to be proper plaintiffs. In effect, the same loss can be sued for twice.

Inspection rights. Does an empty voter have rights to inspect the company's books ('empty inspecting')? Apparently yes, per *Deephaven*.

Director nominations and shareholder resolutions. Rights at shareholders meetings follow voting rights. Just as economic-only owners can't directly vote, they can't attend a shareholder meeting, nominate directors, or present shareholder resolutions, either at the meeting or through a process for including nominations or resolutions in the company circular for the annual shareholder meeting. Conversely, an empty voter can likely do all of these things, though it might have to disclose its hedging. Some U.S. firms have begun to amend their bylaws to explicitly require this disclosure (Andrejcsak, 2008).

Appraisal rights. 'Appraisal' rights are the rights of shareholders who are unhappy with selected major corporate actions, such as a merger or charter amendment, to vote against (or at least not for) the action, object to its completion, and have their shares bought at a court-determined fair value. In the United States, the *Transkaryotic* case apparently allows what we can call 'empty appraisal'.[24]

---

[23] In Deephaven, the plaintiff (Deephaven) wanted to participate in an offering which involved pre-emptive rights, without economic ownership. It borrowed shares, then 'sold' them from its account at one broker to its own account at a second broker. It used the long position at the second broker to exercise pre-emptive rights and to demand to inspect the company's books. The Delaware court allowed both manoeuvres.

[24] In Transkaryotic, an investor bought shares in the market after the record date for a merger vote and then sought appraisal, on the grounds that someone else, from whom it *might* have bought the shares, had not voted for the merger. If courts do not ask about hedging, a future appraisal demand could be brought by someone who neither had voting ownership on the record date, nor economic ownership when the appraisal demand was brought.

2.6. *The worldwide scope of equity decoupling*

How much decoupling activity is there? Without effective disclosure, we don't know. We can, however, collect examples – the visible tip of the potential iceberg. This list, included in the Appendix, currently includes over 90 examples of equity and hybrid decoupling from over 20 countries. Moreover, after a 2005 change in UK rules required disclosure of economic ownership through cash-settled derivatives during takeover bids, the number of ownership disclosures increased by about 20% during the first 18 months after these rules came into force (Takeover Panel, 2007). Our own preliminary search of these 'but-for' disclosures for May 2007 produced 13 instances for that single month.

3. Debt Decoupling

Many elements of the framework for analysing equity decoupling can be extended to debt contracts. Still, in important ways, debt decoupling is more complex than equity decoupling. Companies often have only one class of common shares, each with identical rights. In contrast, multiple classes of debt are common, both with different seniority and with similar seniority but different rights. Holders of different classes often have differing incentives.

Debt decoupling markets are often larger, relative to the size of the underlying market, than their equity counterparts. For example, equity swap markets are a fraction of the size of the underlying equity markets, while credit default swap markets are a multiple of the underlying debt markets. Debt decoupling is also often more complex than equity decoupling. For example, there are large markets for collateralised debt obligations (CDOs) and other securitisation vehicles, with no close equity-side parallels.

As we have seen, shareholders have disclosure and other obligations under a variety of laws. Creditors' obligations are more limited. Outside bankruptcy, there is almost no disclosure of who owns a company's debt, or derivatives on that debt. Within bankruptcy, direct claims against the company must be disclosed, but derivatives generally need not be. Thus, on the equity side, we offered above many examples of the use of decoupling strategies at particular firms. On the debt side, we can offer far fewer firm-level examples. We rely instead – less satisfactorily – on possibilities, rumours, practitioner articles (which often don't name particular instances), and conversations with bankruptcy lawyers, bankruptcy judges, and other knowledgeable market participants. For representative practitioner discussions, see Berman (2007); Fisher and Buck (2006/7), and Flaschen and Mayr (2007).

The related literature which discusses the governance and systemic risk implications of debt decoupling is limited. Our work builds on initial discussions in Hu (2007), Hu and Westbrook (2007), and Hu and Black (2008). There are also brief discussions in Partnoy and Skeel (2007) and Baird and Rasmussen (2007).

We discuss firm-level decoupling in sections 3.1–3.4; and decoupling through securitisation in sections 3.5–3.7. We turn to hybrid debt-equity decoupling in Part 4. Part 5 discusses the implications of debt decoupling for systemic financial risk.

3.1. *Forms of firm-level debt decoupling*

Just as the conventional understanding of share ownership assumes a standard, bundled set of rights and obligations, so too a traditional conception of debt ownership includes a

bundled set of rights under the debt contract, bankruptcy law, and other laws. Contractual rights commonly include rights to principal and interest payments, financial and other covenants, default rights, and voting rights on covenant or default waivers. Bankruptcy law gives creditors who are not timely paid the right to force the company into bankruptcy, and the right to participate in bankruptcy proceedings, including voting on a plan of liquidation or reorganisation, and perhaps the right to present such a plan to the court. Fraudulent conveyance law and some aspects of corporate law limit the ability of insiders to siphon money or other assets from a failing firm. For insolvent firms, directors' fiduciary duties to shareholders may switch and become instead duties to creditors.

The rights held by shareholders are more uniform across firms than the rights held by creditors. Many shareholder rights stem largely from corporate and other laws, customisation in firm charters is often limited. Many creditor rights, in contrast, are contractual, and flow from the varying contracts negotiated by a particular firm with its creditors. Standardisation and use of model forms coexist with tailoring of the terms of particular contracts.

Just as shareholders can hedge their economic exposure by holding equity derivatives and other coupled assets, creditors can often hedge through credit derivatives and other coupled assets. By analogy to empty voting, we will call a creditor who retains formal contractual control rights and legal rights, yet has partly or fully hedged its economic risk, an 'empty creditor'. Investors can hold economic-only debt claims, just as they can hold economic-only equity claims. Debt ownership, like equity ownership, can often be hidden; indeed non-disclosure is the norm. The extent to which economic-only debt is likely to be morphable, if the investor wants covenant rights or voting rights in bankruptcy, we do not know, but the possibility surely exists.

We discussed above firms' ability to soft park their shares, in order to retain voting rights. This too has a parallel on the debt side. Most bond indentures let a company buy and then vote its own bonds. Companies, when in financial distress, regularly use this ability in coercive exchange offers. A typical strategy is to say to bondholders: 'Exchange Bond A for lesser valued Bond B, because if you don't and others do, we will vote to waive all covenants, leaving you worse off than if you had exchanged. Even if a company can't directly vote its own bonds, soft or hard parking offer ways for a firm to influence a vote on a covenant waiver or other restructuring proposal.

One simple way for a creditor to hedge involves company-specific credit derivatives. One common derivative is a credit default swap. Today, most credit default swaps are settled through a cash payment by the credit protection seller to the protection buyer, and we will so assume here. In a simple credit default swap, if a 'credit event' (such as the bankruptcy of the company, a payment default, or an out-of-court restructuring) occurs during the term of the swap, the protection seller will compensate the protection buyer, based on the difference between the face value of the debt instrument and its estimated market value shortly after the credit event. The payment can be based on post-event bids for the debt instrument from market makers, or on an auction.[25]

[25] Most credit default swaps refer to standard terms developed by the International Swaps and Derivatives Association (ISDA) (2003). In a typical "physically settled" swap, the protection seller pays off the buyer at par, and receives in return the underlying debt instrument. However, both parties often agree instead to cash settlement based on the value of the underlying debt instrument, determined through an auction held shortly after the credit event. There are both on-line auction sites and, for major bankruptcies, ISDA-organized

During the swap term, the protection buyer typically pays the seller a fixed periodic amount.

A creditor can thus hedge the default risk on debt by buying protection through a credit default swap, much as a shareholder can hedge equity risk by holding a short equity swap position. A creditor can also hedge through other credit derivatives, including transfers of the entire returns associated with a debt obligation ('total return swaps' or 'loan swaps'), options to buy credit default or total return swaps, and 'credit spread' options or swaps in which payoffs are linked to the spread between the yield on a particular bond and a reference yield.

Creditors can also hedge by being long one class of a company's debt, and short another. And they can hedge through strategies involving the company's common or preferred shares. We focus in this Part on debt-only decoupling. We initially assume a single class of debt, and address multiple debt classes below. We address mixed debt-equity strategies in Part 4.

Dealers in debt and debt derivatives are likely to be an important class of empty creditors. Like their counterparts on the equity side, they will typically try to stay very close to fully hedged or "net flat" – offsetting a long (short) debt position by, for example, buying (selling) credit protection.

Another general debt decoupling strategy arises from repackaging of debt. A 'loan participation' offers a simple example: a lead bank lends money to a corporation, but then transfers some, most, or all of its economic return to other lenders. Often, the lead bank agrees to exercise its rights under the loan agreement to declare or waive defaults, amend covenants, and so on, as instructed by the buyers of the loan participations, in proportion to dollar amount owned. But some loan participation contracts leave these control rights with the lead bank.[26] If so, the lead bank will have greater formal control rights than economic exposure, and will be a partly or fully empty creditor. To be sure, in this case, the lead bank may still consult informally with the loan participation holders.

3.2. *Implications for debt governance*

In this section, we discuss some implications of corporate debt decoupling through 'direct derivatives', which relate to the value of a single company's debt. In Part 3.4, we consider hedging using different classes of a company's debt.

Decoupling can affect both how creditors exercise contractual control rights outside bankruptcy and how they exercise their legal rights within bankruptcy. We refer to creditors' overall relationship with the debtor, including the exercise or restructuring of contractual and legal rights, as 'debt governance'. We use credit default swaps as our main example. A creditor who has partly or fully hedged through a credit default swap nevertheless retains full contractual rights under the loan agreement or bond indenture, and full voting rights in bankruptcy. In contrast, the protection seller bears default risk, but normally has no control rights. Control rights are thus decoupled from economic rights.

---

auctions. Scholtes (2006) describes one such auction. In a standard "cash-settled" swap, the protection seller pays the buyer for its estimated loss, based on bids from dealers.

[26] For a loan participation example involving decoupling of economic interest from control rights, see AutoStyle Plastics, Inc. v. MascoTech, Inc. (In re AutoStyle Plastics, Inc.), 269 F.3d 726, 736–37 (6th Cir. 2001).

Just as equity investors can have negative economic ownership (the value of their overall position rises if the firm's share price falls), so too creditors can have control and legal rights, yet negative exposure to a firm's credit risk (the value of their overall position rises if credit risk rises or a credit event occurs). We will again call this situation 'negative economic ownership'. An investor might, for example, hold $200 million of a company's bonds, but have bought credit protection on $500 million notional amount of bonds.

Creditors with negative economic ownership, like their equity counterparts, may have incentives to act to reduce the value of all debt claims, or the value of the specific debt class they formally hold. Such a creditor might prefer that the company fail, and hence oppose an out-of-court restructuring. Even a creditor with zero, rather than negative, economic ownership may want to push a company into bankruptcy, because the bankruptcy filing will trigger a contractual payoff on its credit default swap position.

Additional complexities may arise if an empty creditor has made a secured loan, and has additional rights relating to the collateral. Just as an empty unsecured creditor is less concerned with the firm's success, an empty secured creditor will be less concerned with the value of the collateral, and may make different decisions than other secured creditors.

No one knows how often creditors hold partly empty positions, fully empty positions (zero economic ownership) or negative economic ownership. But transfer of risk is clearly common. The credit default swap market has exploded over the last decade. One estimate is that the notional amount of credit default swaps on corporate debt exceeds the amount of underlying debt by a factor of ten, although this estimate may include both index and single-name swaps. (Tett and Davies, 2007). Major banks' use of credit derivatives and other forms of risk transfer has soared as well. Duffie (2007) reports that the net transfer of credit risk away from US banks in 2006 through credit default swaps and securitisation was about $3.2 trillion. The overall level of credit risk transfers grew at an 80% compound annual rate during 2001–2006. By 2006, the risk transfer positions held by the major banks which relied on these transfers were more than double their loan assets. At the same time credit risk transfer is concentrated in a limited number of major banks; of 5,700 banks which report to the Federal Reserve Board, only 40 engaged in credit derivative or securitisation trading.

There are also several sources of qualitative evidence. We are informally advised that some credit default swap contracts now include customized terms which require the protection buyer, if it is also a creditor, to act in the interests of other creditors. This suggests concern that the protection buyer might not otherwise do so. But how this obligation can be enforced without disclosure, is anyone's guess. We have also heard from bankruptcy judges that they sometimes see odd behaviour in their courtrooms, which empty crediting might explain. For example, one judge described a case in which a junior creditor complained that the firm's value was too *high*, even though a lower value would hurt the class of debt the creditor ostensibly held. Another is the recent discussion by the UK Financial Services Authority of the greater potential complexity of workouts when creditors are often hedged, and of the potential for creditors to have no economic exposure or to be net short (Financial Services Authority, 2008, pp. 52–53).

Partial hedging is rumoured to be common for 'distressed debt' investing – buying the debt of financially troubled or already bankrupt companies. Specialised 'distressed debt' or 'vulture' investors often accumulate large stakes in a debt class that are likely to be pivotal in a restructuring. For example, under US bankruptcy law, a one-third position in a pivotal debt class may let the holder block adoption of a reorganisation plan favoured by

other creditors, which ordinarily requires a 2/3 vote of creditors. The judge can approve a plan which does not receive this level of support, but the blocking position still conveys negotiating leverage. Unless hedged, these large positions convey large exposure to default risk. Distressed debt investors can often, however, hedge some of this risk, thus acquiring a large voting block without corresponding economic exposure. One sign of underlying activity is the recent skirmishing in several US bankruptcy proceedings over whether a member of ad hoc creditor committees must disclose coupled assets (Berman, 2007; Flaschen and Mayr, 2007).

In the Tower Automotive bankruptcy in 2005, some hedge funds were rumoured to have favoured a filing to benefit their short positions in Tower debt. One of them, Silver Point, told the *Wall Street Journal* that its 'policy' when net short was not to use a loan position to cause a company to file for bankruptcy (Sender, 2005).

A final indirect sign of smoke is the interest in our work on debt decoupling among bankruptcy practitioners, bankruptcy judges, and derivatives dealers (for example, Economist, 2008; Guerrera, White and van Duyn, 2008; Baird, 2008). The analytic framework and 'empty crediting' terminology developed above offers them a language with which to describe activity that they see, or sometimes only suspect, on the ground.

Just as equity decoupling can undermine standard assumptions that underlie the equity side of corporate governance, so too for debt governance. Both loan contracts and bankruptcy laws are premised on the assumption that creditors are averse to downside risk, but otherwise have an economic interest in the company's success and will behave accordingly. Voting on loan contract waivers and amendments, and voting on restructuring plans in bankruptcy, is usually in proportion to principal amount of debt held. This pattern rests on the same logic as a one-share-one-vote regime on the equity side – control rights should be held by those with an incentive to increase the value of the firm, or at least the value of a particular class of debt claims in proportion to that incentive. Empty crediting weakens these assumptions. Its hidden nature only makes the problem worse. Hidden empty crediting implicates other core aspects of the bankruptcy process, including which creditors should serve on creditor committees and the weight a court should give to the views of particular creditors.

3.3. *Decoupling through positions in multiple classes of debt*

We have thus far considered a single class of debt and a simple hedge with credit default swaps. But the world is more complex than this. Large public firms often have multiple classes of debt. These multiple classes offer additional possibilities for negative economic ownership. For example, a creditor's long position in class A may be offset, partly or fully by his short interest in class B or C. Each of these positions can themselves be partly hedged, fully hedged, or over-hedged.

A creditor can be expected to vote its position in classes where it holds formal voting rights in support of its overall position. Moreover, if the vote of one class is expected to be pivotal in a reorganisation, creditors holding other classes may scramble to acquire positions in the pivotal class (often hedged), to support their positions in other classes.

The divergent preferences of different classes on the value assigned to the firm already complicate restructuring negotiations, both in and out of bankruptcy. Holdings of stakes in different classes, potentially some long and some short, add further complexity. So does nondisclosure of hedges, which means that each creditor can't be sure of the incentives of other creditors.

The concept of economic ownership becomes more complex for firms with multiple classes of debt. Different classes of debt will have different 'deltas' – the fractional change in the value of a class of debt, for a $1 change in firm value. As a firm approaches bankruptcy, junior debt will often have a higher delta than senior debt. Yet if the firm's value continues to drop, to a level where payoff to junior creditors is likely to be small, the junior debt delta will fall and the senior debt delta will increase. Thus, if an investor has interests in several classes of debt, the delta for its overall position will change with firm value. The investor' economic ownership could be positive over one value range, near zero over another, and negative over a third.

3.4. *Firm-level debt decoupling: legal and contractual implications*

The potential for large-scale direct decoupling creates pressure for reform in both law and contracting practice. We sketch some of these implications here.

3.4.1. *Implications for bankruptcy proceedings*. Voting by empty creditors in bankruptcy can lead to less efficient decisions on liquidation versus continuation, or on post-reorganisation capital structures. An initial response, similar to our proposal for enhanced disclosure of equity decoupling, would be disclosure in bankruptcy proceedings of significant disparities between nominal debt holdings and actual economic exposure. Put differently, above some *de minimis* threshold, creditors should disclose their hedges, and thus their 'hidden *non*-interest': their *lack* of economic exposure to the company.

This disclosure would ensure that the court, other creditors, and shareholders know where a creditor's economic interest lies. Even if an apparent creditor with negative net economic interest in a class of debt retained voting rights, its views would be discounted. Moreover, courts would likely be readier to override a creditor vote which was tainted by some creditors voting with little, no, or negative economic ownership. The details of such a disclosure regime, including exceptions for small positions or for general hedges tied to an asset class, are beyond the scope of this article.

Looking beyond disclosure, on the equity side, we propose in Hu and Black (2008) to deny voting rights to shareholders with negative overall economic interest, and would allow companies to amend their charters to address empty voting by shareholders with zero or positive economic interest. Creditor voting is more complex, and is often by class (for example, secured, senior, unsecured, junior unsecured). Voting rights may need to be limited to creditors with positive economic interest in a positive economic ownership in the debtor as a whole or in a particular debt class. The degree of voting rights may need to be based on net economic ownership instead of gross ownership of a debt class. The complexities of multiple classes of debt, and correspondingly complex economic interests, make it hard to design sensible voting rules. But it might be feasible to adopt crude rules that block voting with negative overall economic interest – either in the debtor or in a particular class. At least in the USA, bankruptcy courts may have the power under current law to disregard or limit votes by empty creditors, if disclosure rules made it possible for them to identify these creditors.[27]

[27] To oversimplify complex law, approval of a reorganisation plan under US law generally requires a 2/3 vote of each class of creditors, but courts can disallow votes that are 'not in good faith'. US Bankruptcy Code § 1126. There are no cases on whether empty voting by creditors can be disallowed as not in good faith. However, one case, In re Allegheny International

The difficulty in devising sensible voting rules may provide support for proposals to have valuation of bankrupt firms rely more heavily on auctioning the firm's business and less on negotiations among investors (Adler, 2005, surveys auction proposals). Yet auctions also become more problematic, especially if 'credit bids' are allowed. A hedged creditor who makes a credit bid is truly paying with funny money. Even for cash auctions, the opportunity to hedge makes it easier for a creditor to acquire a blocking or controlling stake in a pivotal debt class, which might discourage competing bidders, or let it negotiate auction terms favourable to itself (Harner, 2008).

Where auctions are not available, outcomes may need to rely less on creditor voting and more on judicial discretion. Outside bankruptcy, we would leave it to debt contracts to specify when overall economic ownership should be disclosed, or should affect contractual control rights.

3.4.2. *Implications under other laws*. Creditors often have rights under a variety of other laws, in addition to bankruptcy laws, including corporate law, commercial law, securities law, and fraudulent conveyance law. For financially distressed firms, directors' duty to run the corporation principally in the interests of shareholders may become a duty to creditors. Directors may face requirements under 'wrongful trading' (the UK term) or similar laws to file for bankruptcy with reasonable promptness (Cheffins and Black, 2006; Hu and Westbrook, 2007).

Much as for equity decoupling, courts will need to address which rights can be exercised by empty creditors, who hold formal rights but no or even negative economic interest; and which can be exercised by economic-only creditors. Consider, for example, suits under securities law based on false or misleading disclosure. In the U.S. as we discussed above for equity swaps, suits under general antifraud rules can be brought both by formal owners of debt and equity, and by holders of 'security-based swap agreements'.[28] The definition of this term is complex, but appears to include credit default swaps for bonds (Glass, 2001).

3.4.3. *Implications for private ordering*. Beyond disclosure and formal legal proceedings, it seems likely that debt contracts and workout procedures will need to adjust to the new world of hedged interests. Financial covenants, especially in bank loan agreements, are often written fairly strictly, to provide an early warning of financial trouble and an opportunity for renegotiation. This pattern becomes less viable if there is a risk that *ex post*, some holders of waiver rights will not care about the borrower's success, while others will hope it fails and may seek to use the 'technical default' provided by a covenant violation as leverage toward that end. If lenders are often hedged, they will have weaker incentives to monitor borrowers and participate actively in workouts (Partnoy and Skeel, 2007). If workouts become less viable, optimal debt-equity ratios may decline.

A further problem with both debt trading and debt decoupling involves transmission of confidential information about the company's business. For instance, Delphi has recently charged that some of its creditors shorted its bonds after obtaining private information from Delphi about its travails (McCracken, 2008). Ivashina and Sun (2007) report quantitative evidence that lenders sometimes use credit-related information to trade in the company's shares. We are also informally advised that buyers of troubled debt (or

(1990), disallows voting by a 'lend-to-own' creditor who had acquired a blocking position in the debtor's secured debt, and sought to use that position to acquire post-bankruptcy control.

[28] US Securities Exchange Act of 1934, § 10.

sellers of credit protection for this debt) often receive detailed company information from loan sellers (protection buyers), both inside and outside bankruptcy. The disclosure may breach loan confidentiality provisions. Dissemination could facilitate insider trading in the company's debt or debt derivatives. Whether broader dissemination of company information aids or harms its survival prospects is not clear.

Notwithstanding the complexities in measuring economic ownership, we can imagine the emergence of covenants which limit contractual control rights for creditors who hold zero or negative economic interests. To make the covenants enforceable, one would need either a disclosure regime or, perhaps more likely, a requirement that creditors attest to their economic interest when exercising control rights. We can also imagine broader use of covenants which limit resale or hedging by the original lenders. Gande and Puri (2005) provide evidence that ownership restrictions can reduce borrowing costs for firms in emerging markets, most likely by facilitating renegotiation.

Some protection sellers may also seek to obtain control rights from protection buyers. For example, monoline insurer XL Capital Assurance is currently seeking to cancel credit default swaps with Merrill Lynch, claiming that Merrill agreed to pass through control rights on the underlying debt, but reneged (Campbell, 2008).

3.5. *Securitisation*

Decoupling need not be limited to instruments that relate to a single borrower. Often, bonds or other debt obligations are securitised into collateralised debt obligations (CDOs); CDOs backed primarily by loans are referred to as collateralised loan obligations (CLOs) (Barnett, 2002). Below, we treat the term CDO as including CLOs. We refer to CDOs based primarily on 'real' debt obligations as 'cash' CDOs, and CDOs where the underlying assets are primarily credit default swaps, other CDO obligations, or other debt derivatives as 'synthetic' CDOs. These terms loosely match current practice. We focus here primarily on cash CDOs.

In a typical cash CDO, a financial institution collects a large number of bonds, and creates a special purpose entity (CDO issuer) that holds the bonds, normally as a single risk pool. The CDO issuer then issues securities which repackage the returns from the pool into different tranches. Typically, some tranches are structured as debt claims which have low default risk and receive an AAA rating. Other tranches are higher-risk and thus lower-rated debt. The most junior tranche, in the form of equity in the CDO issuer, can be separately sold (Duffie and Garleanu, 2001; Barnett, 2002, 2007). The financial institution which creates the CDO pool may or may not retain interests in one or more tranches.

A CDO transaction will typically involve several service providers, of whom the most critical are the collateral manager and the indenture trustee. The division of tasks between the two can vary, but typically, the collateral manager selects the assets which comprise the risk pool. Thereafter some pools are actively managed; others are not. The trustee's role is similar to indenture trustees for non-securitised bonds, and often includes distributing the cash flow from the assets tranche holders, and interacting with tranche holders and the issuers of the pool securities. For simplicity, we initially assume that the pool contains a fixed set of assets and that the principal ongoing actor is the trustee. The trustee will exercise the formal creditor rights for the debt claims included in the portfolio. The rights of buyers of CDO tranches to instruct the trustee on how to act vary, both across CDOs and across tranches within a single CDO.

3.6. *The exercise of creditor rights*

We consider here how creditor rights for pool securities will be exercised. We initially assume that the CDO vehicle holds bonds rather than loans. The CDO structure impedes active participation in a workout or other restructuring, whether the indenture trustee retains decision rights, or passes them to tranche holders.

Suppose first that the trustee retains decision rights. CDO trustees may have limited incentives to be actively involved in workouts. First, the trustee is a largely empty creditor. It has an interest in preserving the future stream of trustee fees, and may have a long-term reputational interest in behaving sensibly, but will typically have no other financial interest in the outcome. Second, many CDOs vehicles diversify widely, and own only a small piece of any one company's debt. Thus, the CDO trustee has a limited stake in a single company. Rational apathy, in which the trustee never acquires the information needed for an informed decision, and free rides on the efforts of larger creditors, could sometimes be the privately rational strategy, just as apathy is rational for many small shareholders. Third, debt workouts require close knowledge of the debtor's business, and sometimes the willingness to lend additional amounts. CDO trustees often won't have the necessary knowledge, nor the ability to commit additional capital. Fourth, CDO trustees, like bond indenture trustees generally, are typically paid limited fees for a limited role, which may not cover the people cost of complex workout negotiations (out-of-pocket costs are typically recoverable from pool assets). To be sure, as workouts become more common, market practice is adjusting – some CDOs provide for higher servicing fees for troubled pools; and some trustees now specialise in CDO workouts.

Passing decision rights through to holders of CDO tranches raises a different set of issues. First, the economic interests of tranches can differ widely. The same action might benefit senior tranches yet wipe out juniors. Investors in CDO equity and in junior tranches are the most likely to be affected by a default on one or a small number of the bonds held by the CDO vehicle. Senior tranches will be affected only by widespread defaults. Yet, senior tranches often hold decision rights. They have little incentive to participate in workouts, and often prefer to bail out early, before defaults impair their holdings. They can do so by encouraging the collateral manager to sell defaulted bonds, or by voting to wind up the CDO.[29]

Second, a typical CDO first packages a large number of bonds, and then sells tranches to a (usually moderate) number of investors. If the CDO trustee suffers from incentives for rational apathy, the CDO investors have these incentives squared. Third, CDO holders may be fully or partly hedged, or have other interests in the company's equity or debt. Fourth, the CDO holders may be spread throughout the world, some will hold their interests through nominees, some will trade into or out of positions. In some cases, interests in a cash CDO may form part of the assets of a 'downstream' synthetic CDO pool (called a CDO-squared), with its own trustee and investors. As a result, the CDO trustee may not even know who the ultimate economic holders are.

CDO-based decoupling thus has the potential to undermine debt governance. In particular, it can impede renegotiation of the contractual relationship between borrowers and lenders. This is likely the case whether the trustee retains decision rights or seeks instructions from tranche holders.

Thus far, we have assumed a CDO invested in bonds. The analysis of CLOs is generally similar. One difference is that loan agreements sometimes contain confidentiality

[29] BIS data on derivatives is available at http://www.bis.org/statistics/derstats.htm.

provisions that can limit disclosure to the CLO investors of nonpublic information about the company. This can reduce the quality of decisions made by the CLO investors, or make it infeasible to pass decision rights to CLO investors.

3.7. *Synthetic CDOs*

Synthetic CDOs further separate economic owners from control rights, and raise additional possibilities for negative economic ownership. Suppose, for example, that a holder of a "direct" asset" (a bond, loan, or CDO interest) in effect, sells that asset into a synthetic CDO. Depending on the nature of the direct asset, the synthetic CDO could hold the direct asset, hold a derivative whose value is tied to the value of the direct asset, or include the direct asset in a "reference portfolio." for the synthetic CDO. The holder of the direct asset is then an empty holder; while the economic holders of interests in the synthetic CDO have no control rights.

Moreover, an investment bank (say) which holds a direct asset can use this asset as a reference asset for multiple synthetic CDOs. The investment bank will retain control rights, yet will be net short on the direct asset – it gains if the direct asset falls in value. Yet the bank is selling interests in the synthetic CDO to investors who will hold a portfolio which effectively includes the direct asset. The bank's net short position in some of the reference assets is often not disclosed. How often does repeat use of the same direct asset arise in practice? We don't know, but are informally advised that instances do occur. In one instance, an investment bank used the equity in a cash CDO as a reference asset for multiple CDO-squared structures – leaving itself with an incentive to mismanage the cash CDO.

4. Hybrid Decoupling: Mixed Equity and Debt Decoupling; Non-Host Assets

4.1. *Hedging equity with debt and vice versa*

We have thus far discussed equity decoupling and debt decoupling separately. But they can readily be combined, a pattern one might call 'hybrid decoupling'. For example, creditors can hedge exposure to a company's default risk by buying put options on the company's shares, or taking a short equity swap position related to the common shares. They can buy credit protection on preferred shares, as well as debt. It is sufficiently common for credit protection sellers to hedge with equity so that equity market liquidity is a pricing factor for credit default swaps (Das and Hanouna, 2007). Similarly, equity holders can hedge with credit default swaps.

A limited literature explores the pricing implications of hedging across debt and equity markets (Das and Hanouna, 2007; Carr and Wu, 2006) and discusses hybrid equity-debt derivatives, including equity default swaps (e.g., Medova and Smith, 2004), and equity-collateralised debt obligations (EDOs). We know of no prior literature on the governance implications of hybrid decoupling.

The potential for hybrid decoupling expands the possibilities in both markets for empty voting or crediting, including negative economic ownership. For example, an investor could be long a senior class of debt but short shares. It would then want to recover on its debt position but want to see little or no value left over for equity holders. Or, an investor could be long both shares and debt, and seek to use its debt position primarily to ensure a valuation in bankruptcy sufficient to generate a gain on it share position. And so on.

Darker possibilities exist as well. An investor could manipulate share prices in order to profit on a credit default swap position. Manipulation is hard enough to detect in a single market. Cross-market manipulation is harder still, especially since there is no organised reporting for credit default swaps, similar to that for shares.

Debt investors could also acquire shares (often hedged) and vote to support their debt positions. The recent Bear Stearns collapse, addressed through a Federal Reserve-arranged acquisition by JP Morgan Chase (JPM), provides an example of this type of hybrid decoupling. Bear Stearns creditors wanted the acquisition go through at any price, because JPM had promised to support Bear's debt. They bought Bear shares in order to vote for the merger, helping to push the share price well above the $2 merger price (which JPM later increased to $10). Many creditors probably acquired hedged share positions. Meanwhile, other investors who were short Bear debt (directly or via credit default swap positions) may have bought shares to oppose the merger, hoping to cause Bear to file for bankruptcy. Shareholder votes are usually a way to assess whether a transaction is good for shareholders. However, at Bear Stearns, pre-crisis shareholders were only one of several groups jockeying for share ownership and associated voting rights. AXA-MONY provides another example.[30]

4.2. *Related non-host assets*

Decoupling need not be limited to a single company's debt and shares. Either within or across the equity-debt line, there is the potential for an investor's economic interest to be affected by its positions in other companies – which we have called 'related non-host assets'. For example, a creditor could hold long or short positions in the shares or debt of the company's competitors. One can see these 'cross-company' positions as involving type of hybrid decoupling.

Cross-company positions can give rise to complex incentives with regard to each company's value. A 'long' investor in Company X might gain if competitor Y were to fail. Or Company X might want to push Company Y into a distress sale of assets, for which X would be a likely buyer. A hedged position in Company Y might provide a means toward those ends.

4.3. *Toward disclosure of hybrid positions*

Once again, disclosure emerges as an important, if partial response. For equity disclosure, disclosable coupled assets will need to include the company's debt, and derivatives on this debt. Even the broadest of the current disclosure rules – for example, disclosure of economic ownership by insiders of public companies under US securities law – do not reach this far. They will need to. And vice versa – if debt disclosure is expanded, as we propose above, that disclosure will need to include equity positions in the same company.

The line between debt and equity is obscure in any event, once one adopts an option theory perspective, in which a debt claim is equivalent, control and certain other rights aside, to a risk-free loan plus sale to the shareholders of a put option on the company's business, which enables the shareholders to 'sell' the company to the debtholders in

[30] In some CDOs, the safety of payments on the AAA tranche is enhanced through credit insurance. The insurer will typically require the CDO to convey decision rights to it. The insurers' incentives will be similar to those of senior tranche holders.

exchange for the face amount of the debt. For equity disclosure, the line was sustainable as long as debt claims were infrequently traded and trading involved large transaction costs relative to the value of the embedded put option. Hedging debt with equity was feasible because of low transaction costs for equities and equity derivatives. Hedging equity with debt was less so.

But with the emergence of low-transaction-cost markets for credit derivatives and hybrid derivatives, hedging can now readily go both ways. Where hedging goes, so should disclosure, if one accepts the basic position that equity disclosure should include economic-only ownership, and debt disclosure, at least in bankruptcy, should include hedges.

Concerns about cross-market manipulation and insider trading in low-disclosure markets provide further reason for enhanced disclosure of transactions in debt, debt derivatives, and hybrid instruments. Acharya and Johnson (2007) provide evidence of insider trading in debt derivatives; Ivashina and Sun (2007) provide evidence of insider trading by lenders in shares. To address these risks, we are likely to need expanded disclosure of trades and large positions in debt and debt derivatives, similar to equity disclosure rules.

Writ large, cross-market hedging, hybrid derivatives, and the like are making the line between equity and debt ever blurrier. A regime of disclosure on the equity side, yet nondisclosure on the debt side, makes increasingly little sense.

5. Debt Decoupling and Systemic Risk

The combination of the large size of debt decoupling markets, relative to underlying debt claims, greater complexity of decoupling instruments, and limited disclosure in debt markets creates the potential for debt decoupling to involve externalities and perhaps create systemic financial risk. We sketch here some of the systemic risk implications of widespread debt decoupling. Full treatment is beyond the scope of this article. Prior discussion of the systemic risk from decoupling and other forms of financial innovation is limited. Hu (1993) discusses systemic risks from financial innovation generally. Rajan (2006) discusses agency risks from new forms of financial intermediation. Duffie (2007) discusses how credit risk transfer can affect financial stability.

We focus here on risks, especially those to which decoupling contributes, rather than benefits. We do not claim to outline all of the ways in which debt decoupling contributes or detracts from financial stability (for broader treatments, see, for example, Stulz, 2004; Duffie, 2007). Among other important positives, debt decoupling can lead to more efficient risk bearing and hence lower borrowing rates. At least in normal times, it can enhance liquidity. We make no claim that debt decoupling is ‘bad’, either in general or in particular situations.

5.1. *Sources of systemic risk*

As we discussed in Part 3, debt decoupling can complicate and impede renegotiation. For any one loan, these potential difficulties in renegotiating are simply a cost to be weighed against the efficiency gains from allowing securitisation and other forms of decoupling. One can imagine separating equilibria, in which some loans permit repackaging, but tend to be covenant-light, others have tighter covenants but restrict repackaging to facilitate renegotiation, and still others are accompanied by standby refinancing facilities, to be resorted to if renegotiation fails.

Still, there are externalities lurking. First, spread across a large number of loans, the inflexibility of the relationships among creditors and debtors creates systemic risk. No one borrower can affect that risk. Moreover, any one borrower, by seeking to restrict decoupling, may signal that it expects to need to renegotiate, and thus is a poor borrower. For both of these reasons, privately optimal contracts might produce more decoupling than is socially optimal.

Some of the debt governance and other problems which can flow from widespread debt decoupling can be seen in the housing finance crisis that began in 2007. In the past, a homeowner facing financial difficulty could try to negotiate directly with his lender for waivers and loan modifications. This is harder today. Many home mortgage loans are resold by the initial lender, securitised, or both. If a loan has been securitised, the effective holder of the lender's contractual rights – the servicing agent for the loan that deals with the homeowner – may have limited authority to make accommodations. Even if the servicing agent has the authority, it has limited economic ownership – it holds, in effect, the future stream of servicing rights. (On the other hand, the tranche holders, rather than the servicer, will take the financial hit from loan modifications.)

As with corporate debt, passthrough of decision rights to investors may not help. The economic interests may be spread among a wide range of investors, potentially around the world. Even if these investors had congruent interests – and often they do not because they hold different tranches – the transaction costs to find them would be prohibitive. Sometimes it can be unclear who holds formal rights, notably the right to foreclose. The result, as we saw in 2007, can be gridlock – defaults which could have been avoided if loans could have been renegotiated, and a macro-level collapse in housing prices, which then drives up default risk for all lenders.

Decoupling can foster other potential sources of systemic risk. Some reflect the ways in which financial innovations in general can contribute to systemic risk (Hu, 1993). These include: modelling errors (including underweighting low probability, large loss ('tail') risks, such as the loss of liquidity in times of market stress); buyer and seller failures to understand complex financial products; and new types of agency costs, both within financial institutions and between these institutions and their customers. Duffie (2007) offers the judgment that '[e]ven specialists in [CDOs] are currently ill equipped to measure the risks and fair valuation of tranches that are sensitive to default correlation' and discusses how this might contribute to liquidity shocks.

Debt decoupling raises both these general risks, and some additional systemic risks. Decoupling will tend to reduce the incentives for the initial lender or CDO packager to assess and monitor risks correctly. Investors Keys, Mukherjee, Seru and Vig (2008) report evidence of this effect in subprime lending; securitized loans performed worse than apparently similar, non-securitized loans. are no longer eating their own cooking, as it were. To be sure, buyers of CDO tranches have incentives to assess risk, but they may have imperfect information or understanding. A CDO packager may, in practice, have a profitable product, if credit rating agencies bestow faultily high ratings. Packagers face reputational and legal risks, but in the 2007 crisis, these were clearly insufficient. Even packagers who placed internal bets against the value of mortgage-loan based CDOs, notably Goldman Sachs, continued to package and sell these instruments.

The longer the ownership chain – which for corporate debt now often stretches from borrower to initial lender to CDO packager to CDO buyer (sometimes with a synthetic CDO repackager thrown in) – the greater the potential for agency costs and valuation errors to creep in. The initial lender and CDO packager can potentially profit by making bad loans, if the buyers misjudge risk. If the CDO buyer is a hedge fund or mutual

fund, there is a further layer between the fund's managers and its investors. Money managers compete against each other for client funds based on relative past performance; some managers also earn a carry on returns. Money managers may, whether because of cognitive biases or inappropriate incentives, ignore or underestimate tail risks. These misjudgments can be systemic, as they were for mortgage loans, and thus have systemic consequences.

5.2. *Liquidity risks*

Liquidity risks are a source of special concern. Liquidity often falls during a financial downturn, sometimes abruptly. Decoupling can exacerbate the risk of liquidity shocks, in several ways. First, the resting place of risk can become uncertain. Market participants often want to deal only with reliably solvent counterparties. When a new source of risk emerges, if the holders of that risk cannot be readily identified, illiquidity can spread, and compound the losses from the initial risk event.

Second, the resting place itself may impede the resolution of financial crises. The principal holders of risk are no longer a relative handful of big banks with intricate past and expected future relationships, large individual stakes in troubled loans, and an incentive to resolve the crisis both for their own benefit and from fear of their regulators' raised eyebrows. Instead, risk is often dispersed, may be held by hedge funds and other investors who are less sensitive to publicity and regulatory risk, and is often hidden. An often-cited benefit of decoupling is risk spreading, and thus reduced concentration of default risk in a limited number of international banks and other financial institutions. Fair enough, but a less visible cost is the reduced ability of these financial institutions to address a widespread crisis.

Third, the business models of major financial institutions have come to depend on liquidity in debt decoupling markets. If that liquidity dries up, so does lenders' ability to make new loans, to good borrowers and bad alike.

Fourth, renegotiation and refinancing are potential substitutes: borrowers who, due to decoupling, have reduced ability to renegotiate will their debt rely more heavily on ability to refinance. Yet that ability may dry up when they need it most. The housing finance crisis of 2007 again illustrates the fragile nature of ability to refinance. Many homeowners took escalating rate mortgages, assuming they could refinance when the rate got too high. When the downturn hit, the borrowers who could least afford the escalating rates had the least ability to refinance.

To be sure, markets may evolve to provide standby sources of liquidity to borrowers, to address the risk that the borrower will face difficulty in refinancing at some time in the future. For example, banks already provide standby loan facilities for commercial paper issuers, available when a borrower is squeezed out of the commercial paper market. But, it is unclear whether liquidity sources, available to particular borrowers expand marketwide liquidity. When a credit crunch hits, these liquidity backups may give some borrowers greater access to credit, at the expense of others.

Increased demands on market liquidity *may* induce greater supply of crisis-time liquidity – but then again, they may not. Many of the same factors that lead lenders to underweight tail risks could lead liquidity users to undervalue protection against a low-probability liquidity shock. The potential (and, in 2007-2008, actual) intervention of central banks as liquidity suppliers of last resort could further depress market demand for this protection, much as the likelihood of government disaster relief in flood zones suppresses the purchase of private flood insurance. Thus, liquidity shocks could become more frequent or more severe, other things equal.

5.3. *Toward a disclosure-based response*

The systemic risks posed by debt decoupling suggest that current levels of disclosure need to be revisited generally, not just in the context of firm bankruptcies. Better overall disclosure by financial institutions and major institutional investors of who is holding which risks won't fully address the potential for systemic effects, but it will help. At a minimum, improved disclosure will let market participants decide which counterparties to trust.

A specific disclosure proposal is beyond the scope of this article. But the goal should be to provide investors, other institutions, and regulators with sufficient information about holdings of classes of instruments and aggregate risk levels so they can assess the risks which a particular institution faces. This aggregate disclosure should be on a close to real time basis. We expect that real time disclosure of specific positions will not be needed. But delayed disclosure of specific positions might be appropriate, partly as a check on the accuracy of aggregate disclosure. Delayed position-specific disclosure would be analogous to current US equity-side disclosure by major institutions.

The Bank for International Settlements is a key source for data on worldwide derivatives activities.[31] It and the Basel Committee on Banking Supervision, which has long played a central role in addressing worldwide financial systemic risk, could be appropriate vehicles for the disclosures we contemplate.

6. Conclusion

The expectation that both shareholders and creditors hold standard bundles of rights and obligations as an integrated whole is central to legal, regulatory, and economic understandings of the public corporation. On the equity side, this presumed coupling ensures that shareholders have an incentive to exercise voting rights to increase share value. The primary oversight mechanisms on which we rely to regulate public firms and their shareholders, and to constrain and incentivise managers to act in the interests of shareholder-owners presume this coupling.

On the debt side, this coupling ensures that creditors have an incentive to exercise their contractual and bankruptcy rights well, so that firms which are worth more alive than dead are reorganised, and other firms are sold or liquidated. The assumed coupling of creditors' rights and obligations pervades contracting practice, commercial law, and bankruptcy law.

Yet for both equity and debt, these couplings are increasingly optional. On the equity side, shareholders can decouple economic from voting rights, resulting in such patterns as empty voting, hidden ownership, morphable ownership, and empty appraisal. Corporations as well as shareholders can play the decoupling game. A corporation cannot directly vote its own shares, but it can often do so in practice by 'soft parking' shares in friendly hands.

On the debt side, the decoupling of contractual and bankruptcy rights from economic ownership poses important challenges, both for individual creditors and debtors and for the financial system as a whole. Some apparent creditors may now gain if a company

[31] In AXA-MONY, to finance a bid for MONY, AXA issued convertible bonds, which were convertible into AXA shares at a discount to AXA's price *only if* AXA acquired MONY. Some holders of AXA bonds acquired MONY shares to vote for the merger, while short sellers of AXA bonds acquired MONY shares to oppose the merger.

fails. In workout negotiations, creditors cannot be confident they understand other creditors' motives; bankruptcy judges face similar issues.

Hybrid debt-equity decoupling raises additional challenges for regulation of both equity and debt. On the equity side, equity-only disclosure rules may no longer suffice; disclosure may have to include debt, debt derivatives, and debt-equity hybrids as well.

Widespread debt decoupling both enhances and detracts from financial stability, in poorly understood ways. Among the risks posed by decoupling are weakened debt governance, including reduced ability for debtors to renegotiate their way out of financial distress, and increased borrower and lender reliance on market liquidity, and hence increased exposure to liquidity shocks.

From a policy perspective, the first steps are surely to better understand when and how often decoupling occurs. Disclosure rules, however, have lagged behind market practice. Disclosure is weak on the equity side and nearly nonexistent for debt. In this article, we have collected nearly 100 examples of equity decoupling; there are surely many more undisclosed instances. It is increasingly clear that equity decoupling is an important worldwide phenomenon.

On the debt side, decoupling is widespread, as indicated by the size of the debt derivative and securitisation markets. Yet disclosure of debt derivative positions by individual financial institutions and other large market participants is limited, and disclosure of firm-level decoupling is almost nonexistent. In Hu and Black (2006, 2008), we proposed expanded ownership disclosure rules and some substantive rules to address equity decoupling. Here, to address debt and hybrid decoupling we propose disclosure of coupled assets within bankruptcy, expansion of equity disclosure to include related debt instruments, and vice versa. For financial institutions, hedge funds, and other major investors, we propose disclosure of their aggregate holdings of debt and debt derivatives.

Large-scale equity and debt decoupling are still fairly new. Their extent and their benefits and costs remain imperfectly known. The hedging and risk spreading benefits may well exceed the costs. But decoupling is occurring against the background of a corporate governance paradigm, contractual arrangements, equity and debt governance regimes, and legal rules which largely assume that shareholders and creditors hold bundled packages of rights and obligations. The granularity of analysis and regulation must change, to respond to new possibilities and risks.

References

Acharya, V. V. and Johnson, T. C., 'Insider trading in credit derivatives', *Journal of Financial Economics*, Vol. 84, 2007, pp. 110–41.

Adler, B. *Foundations of Bankruptcy Law* (2005).

Andrejczak, M., 'Update: Sara Lee, Coach Set Rules To Deter Devious Shareholders', *Dow Jones Business News* (2008, Apr. 3).

Baird, D. and Rasmussen, R., 'Anti-bankruptcy', *Working Paper* (2007).

Baird, J., 'CDS may undermine debt governance – law professor', *Reuters* 2008, April 18.

Barnett, G., 'Collateralized bond obligations and collateralized loan obligations', in *New Developments in Securitization 2002* (2002).

Barnett, G., 'CDO equity funds', in *New Developments in Securitization 2006* (2007).

Becht, M., Bolton, P. and Roell, A., 'Corporate governance and control', in G. Constantinides, M. Harris and R. Stulz, eds, *Handbook of Economics and Finance*, 2004, pp. 1–109, also available at http://ssrn.com/abstract=343461.

Berman, M., 'Will the sunlight of disclosure chill hedge funds?', *American Bankruptcy Institute Journal*, May 2007.

Brav, A. and Mathews, R. D., 'Empty voting and efficiency', *Working Paper* (2008).

Butler, P., Address to the International Corporate Governance Network Conference: Creating Value – Building Trust (July 7, 2006) (Powerpoint slides).

Campbell, D., 'XL Capital Explains Decision to Sue Merrill', *Bond Buyer* 2008, Mar. 24, p. 1.

Carr, P. and Wu, L., 'Stock options and credit default swaps: a joint framework for valuation and estimation', *Working Paper* (SSRN, 2006) at http://ssrn.com/abstract=748005.

Cheffins, B. and Black, B., 'Outside director liability across countries', *Texas Law Review*, Vol. 84, 2006, pp. 1385–1480.

Christoffersen, S. K., Géczy, C. C., Musto, D. K. and Reed, A. V., 'Vote trading and information aggregation', *Journal of Finance*, Vol. 62, 2007, pp. 2897–2929.

Christoffersen, S. K., Géczy, C. C., Musto, D. K. and Reed, A. V., 'Cross-border dividend taxation and the preferences of taxable and non-taxable investors: evidence from Canada', *Journal of Financial Economics*, Vol. 78, 2005, pp. 121–44.

Claessens, S., Djankov, S. and Lang, L. H. P., 'The separation of ownership and control in East Asian Corporations', *Journal of Financial Economics*, Vol. 58, 2000, pp. 81–112.

Cohen, L., Diether, K. B. and Malloy, C. J., 'Supply and demand shifts in the shorting market', *Journal of Finance*, Vol. 62, 2007, pp. 2061–96.

Das, S. R. and Hanouna, P., 'Hedging credit: equity liquidity matters', *Working Paper* (SSRN, 2007) at http://ssrn.com/abstract=1028735.

Duffie, D., 'Innovations in credit risk transfer: implications for financial stability', *Working Paper* (2007).

Duffie, D. and Garleanu, N., 'Risk and valuation of collateralized debt obligations', *Financial Analysts' Journal*, Vol. 57, 2001, Jan.–Feb., pp. 41–59.

Economist, 'Bankruptcies in America–Waiting for Armageddon', 2008, Mar. 29, p. 81.

Euromoney, 'London Turns Its Attention to CFDs', 2008, Feb., pp. 45-46

Faccio, M. and Lang, L. H. P., 'The ultimate ownership of Western European corporations', *Journal of Financial Economics*, Vol. 65, 2002, pp. 365–95.

Financial Services Authority (UK), *Financial Risk Outlook 2008* (2008).

Fisher, E. B. and Buck, A. L., 'Hedge funds and the changing face of corporate bankruptcy practice', *American Bankruptcy Institute Journal*, 2006–007, Dec.–Jan, pp. 24–xx.

Flaschen, E. D. and Mayr, K. A., 'Bankruptcy rule 2019 and the unwarranted attack on hedge funds', *American Bankruptcy Institute Journal*, Vol. 16, 2007, September, pp. 46–49.

Gande, A. and Puri, M., 'Enhancing security value by ownership restrictions: evidence from a natural experiment', *Financial Management*, Vol. 34, 2005, Winter, pp. 35–64.

Gilson, R. J. and Black, B. S., *The Law and Finance of Corporate Acquisitions*, second edition (1995).

Glass, A. W., 'CFMA Brings Legal Certainty, But Additional Liability for Credit Derivatives', *Euromoney*, 2001, January (Part 1) And April (Part 2).

Gordon, L. A. and Pound, J., 'ESOPs and corporate control', *Journal of Financial Economics*, Vol. 27, 1990, pp. 525–55.

Guerrera, F., White, B. and van Duyn, A., 'Derivatives boom raises risk of bankruptcy', *Financial Times*, 28 January 2008, p. 13.

Harner, M. M., 'Trends in distressed debt investing: an empirical study of investors' objectives', *Working Paper* (2008).

Hu, H. T. C., 'Misunderstood derivatives: the causes of informational failure and the promise of regulatory incrementalism', *Yale Law Journal*, Vol. 102, 1993, pp. 1457–1513.

Hu, H. T. C., 'Shareholder and creditor decoupling: separating "embedded rights" and contractual rights from economic interests', 2007, working paper.

Hu, H. T. C. and Black, B., 'The new vote buying: empty voting and hidden ownership', *Southern California Law Review*, Vol. 79, 2006, pp. 811–908.

Hu, H. T. C. and Black, B., 'Hedge funds, insiders, and the decoupling of economic and voting ownership: empty voting and hidden (morphable) ownership', *Journal of Corporate Finance*, Vol. 13, 2007, pp. 343–67.

Hu, H. T. C. and Black, B., 'Equity and debt decoupling and empty voting II: importance and extensions', *University of Pennsylvania Law Review*, Vol. 156, 2008, pp. 625–739, available at http://ssrn.com/abstract=1030721.

Hu, H. T. C. and Westbrook, J. L., 'Abolition of the corporate duty to creditors', *Columbia Law Review*, Vol. 107, 2007, pp. 1321–1403.

International Swaps and Derivatives Association (ISDA), 2003 ISDA Credit Derivatives Definitions.

Ivashina, V. and Sun, Z., 'Institutional stock trading on loan market information', *Working Paper* (SSRN, 2007) at http://ssrn.com/abstract=967500.

Jobst, A. A., 'European securitization: a Garch model of CDO, MBS and Pfandbrief spreads', *Journal of Structured Finance*, 2006, Vol. 12, pp. 55–80.

Kahan, M. and Rock, E. B., 'The hanging chads of corporate voting', *Working Paper* (SSRN, 2007), at http://ssrn.com/abstract=1007065.

Keys, B. J., Tanmoy, M., Amit, S. and Vikrant, V., 'Did Securitization Lead to Lax Screening? Evidence from Subprime Loans 2001-2006, *working paper*, 2008, at http://ssrn.com/abstract=1093137.

Kirchmaier, T. and Grant, J., 'Financial tunnelling and the revenge of the insider system', *Working Paper* (SSRN, 2005), at http://ssrn.com/abstract=613945.

Listokin, Y., 'Management always wins the close ones', *Working Paper* (SSRN, 2007), at http://ssrn.com/abstract=980695.

Loderer, C. and Zgraggen, P., 'When shareholders choose not to maximize value: the Union Bank of Switzerland's 1994 proxy fight', *Journal of Applied Corporate Finance*, 1999, Fall, pp. 91–102.

Martin, S. and Partnoy, F., 'Encumbered shares', *University of Illinois Law Review*, 2005, pp. 775–813.

McCracken, J., 'Delphi's Woes: Chapter 11 Insider Trading', *Wall Street Journal*, 2008, Mar. 13.

Medova, E. A. and Smith, R. G., 'A structural approach to EDS pricing', *Risk*, Vol. 19, 2004, April, pp. 84–88.

Nathan, C. M., '"Empty voting" and other fault lines undermining shareholder democracy: the new hunting ground for hedge funds', *Corporate Governance Advisor*, 2007, Jan.–Feb., pp. 1–9.

Neeman, Z. and Orosel, G. O., 'On the efficiency of vote buying when voters have common interests', *International Review of Law and Economics,* Vol. 26, 2006, pp. 536–56.

Partnoy, F. and Skeel, D. A., Jr., 'The promise and perils of credit derivatives', *University of Cincinnati Law Review*. Vol. 75, 2007, pp. 1019–50.

Raghavan, A., 'Happy returns: how Lehman sold plan to sidestep tax man – hedge funds use swaps to avoid dividend hit; IRS seeks information', *Wall Street Journal*, 17 September 2007.

Rajan, R. G., 'Has financial development made the world riskier?', *Working Paper* (SSRN, 2006) at http://ssrn.com/abstract=842464.

Rauh, J. D., 'Own company stock in defined contribution pension plans: a takeover defense?', *Journal of Financial Economics*, Vol. 81, 2006, pp. 379–410.

Risk Management Association, RMA Securities Lending Industry Composite, Averages for the Period: 2nd Quarter 2007, *available at* http://rmahq.org/NR/rdonlyres/77B9BCC6-5FB2-4961-884D-BAAB3ADAED2B/0/Survey2ndQtr2007.xls

Rubinger, J. L., 'Tax planning strategies with equity derivatives', *Florida Bar Journal*, 2002, April, pp. 45–49.

Schizer, D., 'Frictions as a Constraint on Tax Planning', *Colunbia Law Review*, Vol. 101, 2001, pp. 1312–1409.

Scholtes, S., 'Dura Provides Test for New Settlement Rule', *Financial Times*, 2006, Nov. 2.

Securities and Exchange Commission, Division of Corporation Finance, Letter To Judge Lewis Kaplan, with regard to CSX Corp. v. The Children's Investment Fund (June 4, 2008).

Sender, H., 'Hedge-fund lending to distressed firms makes for gray rules and rough play', *Wall Street Journal*, 18 July 2005.

Sheppard, L., 'IRS Pursues Individual Constructive Sales Using Equity-Linked Securities', *Tax Notes*, Vol. 96, 2002, pp. 1797–1801.

Stulz, R., 'Should we fear derivatives?', *Journal of Economic Perspectives*, Vol. 18, 2004, Summer, pp. 173–92.

Takeovers Panel (Australia), Guidance Note 20 – Equity Derivatives (undated, issued April 2008), *available at* http://www.takeovers.gov.au/displayasp?ContentID=1368.

Takeover Panel (UK), Code Committee. 'Derivatives and Options Regime: 2007 Review', 2007, June.

Tett, G. and Davies, P. J., 'Unbound: how a market storm has seen derivatives eclipse corporate bonds', *Financial Times*, 8 August 2007, p. 11.

van der Horst, J., and van Uchelen-Schipper, M., 'The Netherlands', *Working Paper* (2007).

Appendix

Equity and Hybrid Decoupling Examples

This table lists, roughly in reverse chronological order, the known (or rumored) instances of equity and hybrid decoupling we were able to collect from a combination of public news stories, regulatory studies, and anecdotes provided by readers and workshop participants. An X in the "hidden ownership column, without more, indicates that ownership was hidden; "X (disclosed)" indicates economic-only ownership that was not hidden. Hybrid decoupling is indicated in the "other goals" column. The table generally excludes cases of disclosed decoupling under the new UK Takeover Panel rules. The table is a work in progress and reflects the examples known to us as of April 15, 2008. It is (c) 2008 Henry T. C. Hu.

No.	Date	Host company	Country	Vote buyer or hidden owner	Empty voting	Hidden ownership	Other goals	Coupled or related asset	Description
94	ongoing	many companies	U.S.	company itself	X			ESOP	Empty voting of non-vested shares.
93	ongoing	many companies	U.S.	company itself	X			restricted stock	Empty voting from being able to vote restricted shares.
92	ongoing	some companies	U.S, U.K.	insiders or company itself	X			various	Insiders expect close vote, arrange for friendly investors to engage in record date capture.
91	ongoing	many companies	various	insiders	X			various	Insiders reduce economic stake by hedging, retain voting control.
90	ongoing	many companies	various	company executives	X			collars (put and call options)	Executives use collars to limit risk, become partly empty voters.
89	ongoing	many companies	various	Insiders	X		defer income tax	options, loans	Insiders use derivative strategies to "monetize" shareholdings, shed most of their economic risk, but defer tax on gain.
88	ongoing	many companies	Various	corporate shareholder	X		defer income tax	call options, debt exchangeable for shares	Company A holds shares in B, sells debt exchangeable for B's shares or long-duration call options on B's shares.
87	2008	Bear Stearns	U.S.	Creditors	X		hybrid decoupling	Bear Stearns debt	Holders (short sellers) of Bear Stearns debt acquired shares to support (oppose) merger with JP Morgan Chase, which had promised to support this debt.

86	2008	CSX	U.S.	Children's Investment Fund and 3G (hedge funds)		X		equity swaps	Hedge funds acquired 20% economic stake in CSX, but kept share ownership below 5% to defer 13D filing. See Section 2.2.3.
85	2008	CNET	U.S.	Jana Partners and other hedge funds		X		equity swaps	Jana and Castlerigg announce holding 21% of CNET, launch proxy contest.
84	2007	Turkcell	Turkey	Alfa Group		X		Repurchase agreement	Arbitration panel orders Alfa to reduce stake in Kyivstar to under 5%; Alfa sells part of Turkcell (which owns part of Kyivstar) to Kazakh company, retains repurchase rights.
83	2007	Endesa	Spain	Enel			Avoid regulatory limit on share position	equity swaps	Enel uses swaps to acquire 25% of Endesa, direct holding of 9.99% is under 10% regulatory limit.
82	2007	Fortis	Netherlands	hedge funds (and rumors as to ABN- Amro)				share loans	Record date capture, to influence Fortis' ability to raise funds to bid for ABN-Amro.
81	2007	ABN Amro	Netherlands	Royal Bank of Scotland		X		equity swaps, call options	Takeover bidder quietly increases stake from 4% to 8%, then discloses new stake.
80	2007	OMX	Sweden	Borse Dubai		X		call options	Borse Dubai emerges with 28.4% of OMX, mostly through option agreements with hedge funds, competes with NASDAQ deal to buy OMX.
79	2007	MOL	Hungary	MOL	X			share loans	As defense to takeover bid, MOL buys 40% of own shares, lends them to Hungarian banks, which can vote them.

Appendix
Continued.

No.	Date	Host company	Country	Vote buyer or hidden owner	Empty voting	Hidden ownership	Other goals	Coupled or related asset	Description
78	2007	Target	U.S.	Pershing Square (hedge fund)		X (disclosed)	Avoid short-swing profit recapture	Call options, equity swaps	Pershing Square initially acquires 9.6% of Target, mostly through equity derivatives; later announces it hold 9.97% in shares and 12.6% total economic stake.
77	2007	TD Ameritrade	U.S.	Jana Partners & SAC Capital (hedge funds)		X		unspecified	Hedge funds seek sale of company, advise it that they have 8.4% stake, no 13D filing.
76	2007	Implenia	Switzerland	Laxey Partners (hedge fund)		X		cash-settled call options	Laxey announces 23% stake in Implenia; no prior disclosure.
75	2007	Converium	Switzerland	Scor (France)		X		cash-settled call options	Scor acquires 33% stake in Converium as part of takeover bid, without prior disclosure.
74	2007	CVS Caremark	U.S.	broker votes in director election	X			record ownership	Broker votes of client shares reelect director Roger Headrick despite "vote no" campaign.
73	2007	Borders Group	U.S.	Spencer Capital Management		X		Options	Spencer obtains 6.8% stake in Borders, about one-third of which is in form of options.
72	2007	Freeport-McMoRan and others	U.S., Europe	Atticus Capital (hedge fund)		X		Unspecified derivatives	Atticus Capital discloses that it owns 6.4% of Freeport but had "long economic exposure" to 11.5% because of equity swaps and other derivatives.
71	2007	Sulzer	Switzerland	Victory Industrial & Viktor Vekselberg		X		Cash-settled call options, other derivatives	ZKB and Deutsche Bank provide derivatives to let investor group acquire 32% hidden position in Sulzer.
70	2007	Tribune	U.S.	Chandler family	X			Unspecified hedges	Chandlers own 20% of Tribune, support Zell merger proposal, expected to hedge economic interest but retain voting rights.

69	2007	London Stock Exchange (LSE)8	U.K.	Heyman, Kinetics, and Paulson money managers		X (disclosed)		equity swaps	Money managers hold 23% of LSE through equity swaps, support LSE against NASDAQ bid.
68	2007	Ascom	Switzerland	Victory Industrial (Austria)		X		cash-settled call options	Victory announces holding of 20% of Ascom, through shares and options.
67	2007	PT Multimedia	Portugal	Portugal Telecom (parent)		X		equity swaps	Portugal Telecom holds 58% of PT Multimedia directly, another 10% through equity swaps with Barclays.
66	2007	Stork NV	Netherlands	company itself	X				Company responds to Centaurus and Paulson by placing high-voting preferred shares with foundation.
65	2007	Motorola	U.S.	Carl Icahn			avoid antitrust filing	call options	Icahn acquires Motorola stake, uses OTC call options to delay need for Hart-Scott-Rodino antitrust filing.
64	2007	Stork NV	Netherlands	Centaurus and Paulson hedge funds		X		unspecified derivatives	Hedge funds holding 31% of Stork seek breakup, Stork claims they initially hid their ownership.
63	2007	U.S. Global Investors	U.S.	unspecified hedge funds	X				Company claims that share volatility "may be amplified" by hedge funds engaging in empty voting who oppose charter amendments.
62	2007	Ceridian Corp.	U.S.	Pershing Square (hedge fund)		X (disclosed)		OTC call options	Pershing makes initial disclosure because of share stake and later also acquires OTC call options.
61	2006	Multi-Fineline –Electronix	U.S./Singapore	Stark (hedge fund)	X			unspecified hedges	Freezeout by parent company; Stark holds large position in parent plus hedged position in sub, supports freezeout.

Appendix
Continued.

No.	Date	Host company	Country	Vote buyer or hidden owner	Empty voting	Hidden ownership	Other goals	Coupled or related asset	Description
60	2006	EADS	Netherlands	Lagardere	X			convertible bonds	Lagardere issues bonds convertible into EADS shares, retains shares and hence votes until bonds are converted.
59	2006	Lindner Holding KGaA	Germany	Lindner Holding GmbH (controlling shareholder)	X		complete freezeout	share borrowing	Parent uses borrowed shares to meet 95% threshold for freezeout; effort blocked by Munich appeals court.
58	2006	Hyundai Merchant Marine	Korea	Hyundai Elevator	X		avoid holding company rules	repurchase agreement	Elevator seeks votes to block takeover bid by Hyundai Heavy Industries; will be regulated as holding company if holds shares directly; arranges for IXIS Bank to buy shares and vote as directed.
57	2006	Portugal Telecom	Portugal	company itself	X			unspecified hedges	Sonaecom bids for Portugal Telecom, which places Treasury shares with Barclays; Barclays will vote against bidder, is protected against loss.
56	2006	Arcelor	Luxembourg	unspecified hedge funds	X			unspecified hedges	Hedge funds, supporting Mittal's bid, rumored to have acquired votes to oppose white squire deal with Severstal.
55	2006	Arcelor	Luxembourg	company itself	X			Dutch foundation	Arcelor places shares of major subsidary with Dutch foundation as defense against Mittal takeover bid.
54	2006	Telent PLC	U.K.	Polygon (hedge fund)	X			share borrowing and/or equity swaps	Polygon blocks acquisition of Telent, exercising voting power beyond its economic interest.

53	2006	Sears Canada	Canada	Pershing Square (hedge fund)	X (Scotia-bank)	X (unsuccessful, by Pershing Square)	equity swaps	Sears Holdings wants to freeze out minority in Sears Canada subsidiary, Pershing Square holds equity swaps in Sears Canada, Scotiabank is dealer manager for parent's offer, refuses to unwind swap, plans to vote for offer.
52	2006	Saurer	Switzerland	Victory Industrial (Austria)		X	cash-settled call options	Victory announces that it holds 45% stake—24% shares bought from Laxey Partners (see below) plus 21% through options—no prior disclosure, makes tender offer for rest of Saurer.
51	2006	Saurer	Switzerland	Laxey Partners (hedge fund)		X	unspecified	Laxey announces in July 2006 that it holds over 25% stake in Saurer, no prior disclosure.
50	2006	Euronext	France	Company itself	X		unclear	French government recruits French banks to hold "pool shares" of Euronext to defend against Deutsche Börse takeover bid.
49	2006	Henderson Investment	Hong Kong	Hedge fund(s)	X	X (short position)	share borrowing + short sale	Parent Henderson Land proposed freezeout of its subsidiary, Henderson Investment. Hedge fund borrows enough shares to let it kill the freeze-out, voted no, then sells short and profits when voting outcome is announced.
48	2006	Time Warner	U.S.	Istithmar (private investment fund)		X	Equity-linked notes	Istithmar acquires 2.4% economic ownership through equity-linked notes purchased from UBS, which agrees to "consult" its client before voting or disposing of its matched shares.
47	2006	Phelps Dodge	U.S.	Atticus Capital (hedge fund)		X	options	Atticus becomes largest shareholder in Phelps Dodge.

Appendix
Continued.

No.	Date	Host company	Country	Vote buyer or hidden owner	Empty voting	Hidden ownership	Other goals	Coupled or related asset	Description
46	~ 2005	Confidential company	U.S.	Hedge fund(s)	X	possible		??	Hedge fund holds 4.9% of shares, wants divestiture, rebuffed; 2 weeks later has 51% of votes, no apparent share accumulation (no market impact).
45	2005	Unaxis	Switzerland	Victory Industrial (Austria)		X		physical- and cash-settled call options	Victory uses shares and options to accumulate 30% stake without prior disclosure.
44	2005	OAO Megafon	Russia	Leonid Reiman		X		Offshore trust	Reiman (Russian telecom minister) holds Megafon shares through trust; his lawyer controls trust, claims to be beneficial owner.
43	2005	Wendy's Int'l	U.S.	Pershing Square (hedge fund)		X (disclosed)		Options	Pershing reports holding 9.3% stake, with more than 6% in form of options.
42	2005	Wendy's Int'l	U.S.	Trian and allied hedge funds		X (disclosed)		Matched call and put options	Trian mounts proxy campaign for spinoff of Wendy's subsidiary; its economic ownership is primarily through options.
41	2005	Banca Anton-veneta	Italy	Banco Populare di Lodi		X	avoid mandatory bid rules	call options	Banco Populare holds 29.3% of Antonveneta directly, 46% total, Consob requires mandatory bid
40	2005	Fiat	Italy	Agnelli family		X	avoid mandatory bid rules	equity swaps	Agnelli family acquires equity swaps in Fiat, instead of shares, to preserve control without triggering mandatory bid rule, perhaps also to avoid disclosure and hence market impact.
39	2005	Austral Coal	Australia	Glencore		X		equity swaps	Glencore acquires 10% stake in Austral Coal through combination of disclosed share purchases and undisclosed swaps.

38	2005	Exar	U.S.	GWA Investments (hedge fund)	X			Short sales	GWA seeks minority board seats; its position in Exar is 96% hedged.
37	2005	Fuji TV	Japan	Nippon Broadcasting		X	Deny voting rights to takeover bidder	stock lending	Nippon lends its shares in Fuji TV to others as a defense to takeover bid by Livedoor, Nippon's economic ownership is morphable but not hidden.
36	2005	Deutsche Börse	Germany	Hedge funds	X			short sale of target shares	Opponents of Deutsche Borse bid for LSE go long Deutsche Börse, short LSE.
35	2005	Portman Mining	Australia	Seneca (hedge fund)		X		equity swaps	Cleveland Cliffs bids to acquire Portman. Seneca holds 9% economic interest in Portman through equity swaps.
34	2004–2005	WMC Resources	Australia	BHP Billiton		X		equity swaps	Acquisition of 4.3% toehold through equity swaps.
33	2004–2005	Mylan Laboratories	U.S.	Perry Corp. (hedge fund)	X			equity swap	Perry and Citadel hold shares in King, which Mylan proposes to acquire; they buy hedged positions in Mylan to vote for the merger.
32				Citadel (hedge fund)	X			Unknown	
31	2004	DFS	U.K.	Polygon (hedge fund)		X		equity swap	Polygon seeks to influence DFS despite owning only one share of stock (it had 3% economic ownership through equity swaps).

Appendix
Continued.

No.	Date	Host company	Country	Vote buyer or hidden owner	Empty voting	Hidden ownership	Other goals	Coupled or related asset	Description
30	2004	Alvis	U.K.	Hedge funds		X		equity swap	Hedge funds with equity swaps as to Alvis shares support BAe Systems bid for Alvis.
29	2004	Hyundai Merchant Marine	Korea	Hyundai Elevator	X	X	avoid holding company rules	complex option and voting contract	Elevator wants to control more shares of Marine to block a takeover bid, arranges for Cape Fortune to hold them and vote as directed.
28	2004	Marks and Spencer	U.K.	Hedge funds (helping Philip Green to acquire Marks and Spencer)		X		equity swap	Dealers who hold matched shares to hedge equity swaps support Green's bid.
27	2004	Canary Wharf	U.K.	"Songbird" consortium (seeking to acquire Canary Wharf)		X		equity swap	Derivatives dealer UBS holds 7.7% of Canary as matched shares to support equity swaps held by Songbird members.
26	2004	MONY Group	U.S.	holders and short sellers of AXA convertible bonds	X		hybrid decoupling	acquirer's convertible bonds	Holders (short sellers) of AXA bonds support (oppose) merger with MONY, hoping to profit from AXA bond holdings.
25	2004	Disney Co.	U.S.	broker votes in director election	X			record ownership	Broker votes of client shares reelect CEO Michael Eisner despite "vote no" campaign.
24	2004	Unitedglobalcom	U.S.	Deephaven (hedge find)			empty exercise of appraisal rights	Share borrowing	Deephaven borrowed shares in account at broker 1, sold them (short) to its own account at broker 2, and used second account to exercise preemptive rights
23	2004	News Corp.	Australia & U.S.	Liberty Media	X	Hidden: yes Morphable: maybe		forward contract and equity swap	Liberty Media holds voting and nonvoting News Corp. shares, uses derivatives to adjust its economic exposure.

22	2003	SK Corp.; SK Telecom	Korea	SK Networks			X	private contracts	SK Networks arranges for offshore money managers to hold SK Corp and SK Telecom shares, SK Networks retains economic risk and de facto voting rights.
21	2002	Middle East Tube Co.	Israel	controlling shareholders				informal put option	Controller lends money to friend to buy shares and vote them in favor of related party transaction, dispute over whether friend has informal put option.
20	2002	P&O Princess	U.K.	Investor (favor Carnival bid for P&O Princess)	X	maybe		share borrowing	P&O shareholders who favor Carnival's bid reportedly borrow shares in order to vote for acceptance.
19	2002	Moss Brothers	U.K.	Legendary Investments			X	equity swap	Legendary uses equity swaps to obtain 20% economic interest, obtains formal assignment of voting rights of matching shares from the counterparty.
18	2002	Hewlett-Packard	U.S.	holders of Compaq shares (target of HP merger bid)	X			target shares	Compaq shareholders are rumored to have acquired hedged HP positions to support HP's merger with Compaq.
17	2002	Coles Myer	Australia	Solomon Lew (proxy contestant)	X	no		Options	Lew buys additional shares, but hedges with options.
16	2002	Quanta Services	U.S.	company itself	X			ESOP	Quanta adopts ESOP in response to takeover bid by Aquila.
15	2002	British Land	U.K.	Laxey Partners	X			share borrowing	Laxey holds 1% of British Land, borrows another 8% to support a breakup proposal.
14	2001	Telecom Italia	Italy	unknown share borrowers	X			Share borrowing	Fidelity and Morgan Stanley hold 10% of Telecom Italia, oppose Pirelli bid, but can cast only 1% of the votes; their other shares were lent and can't be recalled in time.

Appendix
Continued.

No.	Date	Host company	Country	Vote buyer or hidden owner	Empty voting	Hidden ownership	Other goals	Coupled or related asset	Description
13	2001	Fondiaria	Italy	SAI (acquirer)		X	avoid mandatory bid rule	Call options	SAI parks Fondiaria shares with banks to avoid Italy's mandatory bid rule, retains call options on the shares.
12	2001	Rubicon	New Zealand	Perry Corp.		X		equity swaps	Perry holds equity swaps to conceal ownership in Rubicon, later unwinds swaps and votes at Rubicon meeting.
11	1999	Gucci	Netherlands	company itself	X			ESOP	LVMH buys 34% stake in Gucci, Gucci establishes ESOP to hold equal number of shares, neutralizing LVMH's interest.
10	1998	Ciber	U.S.	CEO Bobby Stevenson	X		defer income tax	prepaid forward sale, options	CEO and founder forward sells $82M in company shares, sheds most risk, defers income tax
9	1997	Arad	Israel	Shlomo Eisenberg (controller)	X			put option	Controller places shares in friendly hands to obtain approval by non-conflicted shareholders of related party transaction, a put protects buyers against loss.
8	1997	John Fairfax Holdings	Australia	Brierley Investments			avoid mandatory bid rule	Equity swaps	Brierley holds equity swaps instead of Fairfax shares to avoid Australia's mandatory bid rules.
7	1995	Estee Lauder	U.S.	Lauder family	X		defer income tax	prepaid forward short sale	Estee and Ron Lauder borrow shares from other insiders, sell them short in IPO
6	1994	Northern Electric	U.K.	Trafalgar House				equity swaps	Trafalgar enters into equity swaps before making bid for Northern Electric.

5	1994	UBS	Switzerland	Company itself	X		share borrowing, forward contracts	In response to takeover bid by Martin Ebner, UBS seeks to amend charter, agrees to repurchase shares from two major shareholders *after* a shareholder meeting; the shares are voted in favor of the amendment.
4	1991	NCR	U.S.	company itself	X		ESOP	NCR adopts ESOP as defense against bid by AT&T.
3	1989	Dunkin' Donuts	U.S.	company itself	X		ESOP	Dunkin' Donuts adopts ESOP as defense against takeover bid Kingsbridge Capital and DD Acquisition
2	1988	Polaroid	U.S.	company itself	X		ESOP	Polaroid adopts ESOP in response to takeover bid from Shamrock Holdings.
1	1988	Macmillan	U.K.	company itself	X		ESOP	MacMillan contributes additional shares to ESOP, replaces ESOP trustees with members of management.