1-1-2009

Going Private but Staying Public: Reexamining the Effect of Sarbanes-Oxley on Firms' Going-Private Decisions

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Recommended Citation
Going Private but Staying Public: Reexamining the Effect of Sarbanes-Oxley on Firms' Going-Private Decisions, 76 U. Chi. L. Rev. 7 (2009)
This Article examines whether the cost of complying with the Sarbanes-Oxley Act of 2002 (SOX) contributed to the rise in going-private transactions after its enactment. Prior studies of this issue generally suffer from a mistaken assumption that by going-private, a publicly traded firm necessarily immunizes itself from SOX. In actuality, the need to finance a going-private transaction often requires firms to issue high-yield debt securities that subject the surviving firm to SEC reporting obligations and, as a consequence, most of the substantive provisions of SOX. This Article thus explores a previously unexamined natural experiment: to the extent SOX contributed to the rise in going-private transactions, one should observe after 2002 a transition away from high-yield debt in the financing of going-private transactions towards other forms of “SOX-free” finance.

Using a unique dataset of going-private transactions, this Article examines the financing decisions of 468 going-private transactions occurring in the eight-year period surrounding the enactment of SOX. Although SOX-free forms of subordinated debt-financing were widely available during this period, I find no significant change in the overall rate at which firms used high-yield debt financing in structuring going-private transactions after SOX was enacted. Cross-sectional analysis, however, reveals that the use of high-yield financing marginally declined after 2002 for small- and medium-sized transactions, while significantly increasing for large-sized transactions. These findings are consistent with the hypothesis that the costs of SOX have disproportionately burdened small firms. They also strongly suggest that non-SOX factors were the primary impetus for the “name brand” buyouts commonly evoked as evidence that SOX has harmed the competitiveness of US capital markets.

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I thank Dan Brodansky, Brian Broughman, Tom Eaton, Jesse Fried, Kent Greenfield, Paul Heald, Todd Henderson, Christine Hurt, Bob Lawless, Jim Linck, Harold Mulherin, Jeff Netter, Chuck O’Kelley, Peter Oh, Victoria Plaut, Annette Poulsen, Jaxk Reeves, Larry Ribstein, Usha Rodrigues, Jim Rogers, Maggie Sachs, Jason Solomon, Eric Talley, and Jide Wintoki. This Article also benefited from comments received from participants in the Symposium The Going-private Phenomenon: Causes and Implications at The University of Chicago Law School; participants at the 2008 Annual Meeting of the American Law and Economics Association and workshop participants at the University of Georgia Department of Banking and Finance, the UC Berkeley School of Law, the Boston College School of Law, Emory Law School, the University of Illinois College of Law, the University of Pittsburgh School of Law, and the 2008 Law and Entrepreneurship Retreat. Additionally, special thanks go to Marc Auerbach of Standard & Poor’s and Eric Tutterow of Fitch Ratings for providing helpful data and discussion, and to Kevin Erwin (Georgia ’09) for research assistance. All errors are my own.
INTRODUCTION

I'd say on Sarbanes ... [it's] probably been the best thing that's happened to our business [as a private-equity firm] and one of the worst things that's happened to America. ... I find corporate managers more or less quite defeated by Sarbanes. I think it's taken a lot of the entrepreneurial zeal out of a lot of corporate managers, and as a result of that, when we talk to them about going private, they're really quite excited about it.

—Stephen Schwarzman,
Chairman, CEO, and Co-founder,
The Blackstone Group LP

Since its enactment, the Sarbanes-Oxley Act of 2002 (SOX) has engendered a vigorous debate concerning whether the post-SOX increase in the cost of being a public company has harmed the competitiveness of US capital markets. Of particular importance in this debate has been the remarkable growth since 2002 in “going-private” transactions—in general terms, the acquisition of a publicly traded firm by a privately held firm. As documented by the nonpartisan Committee on Capital Markets Regulation, going-private transactions have grown steadily since the enactment of SOX, comprising 25 percent of all public takeovers in 2004, over twice the level of pre-SOX going-private transactions. Not surprisingly, for many commentators and policy analysts the conclusion that the costs of SOX have contributed to the surge in going-private activity has been difficult to resist.

4 See, for example, Sarbanes-Oxley Section 404: Will the SEC’s and PCAOB’s New Standards Lower Compliance Costs for Small Companies?, Hearings before the House Small Business Committee, 110th Cong, 1st Sess, 94 (June 5, 2007) (statement of Hal S. Scott, on behalf of the Committee on Capital Markets Regulation), online at http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=110_house_hearings&docid=f:36101.pdf (visited Jan 11, 2009) (“One of the reasons for the increasing attractiveness of private equity markets is concern over the costs of going or remaining public.”); William J. Carney, The Costs of Being Public after Sarbanes-Oxley: The Irony of “Going Private,” 55 Emory L J 141, 142, 153-59 (2006) (arguing that SOX in general, and § 404 in particular, is “the principal factor in increased costs” faced by publicly traded firms, resulting
Notwithstanding this conventional wisdom, academic studies of the relationship between SOX and the rise in going-private transactions have struggled with two significant problems. First, prior studies have had difficulty controlling for other factors that could have affected firms' decisions to go private following the enactment of SOX. In particular, the corporate scandals that ushered in SOX contributed to a variety of economic developments after 2002—such as a marked reduction in financial market liquidity and a prolonged period of depressed stock prices—that have traditionally been associated with firms' decisions to delist their equity securities. Likewise, firms also may have been influenced by other non-SOX regulatory developments after 2002, such as heightened criminal prosecution against publicly traded firms and their executives, together with a significant increase in the size of settlement payments related to class action shareholder lawsuits.

More significantly, prior studies have assumed that in choosing to go private, a publicly traded firm necessarily becomes immune from the compliance burdens imposed by SOX. In actuality, firms going private frequently remain subject to SOX's compliance costs owing to the fundamental need to finance a going-private transaction. Specifically, unless a firm can finance a transaction with cash on hand or private bank debt, it will often have to turn to high-yield debt markets to fund a portion of the transaction costs. Indentures for high-yield notes, however, have long required issuers to file periodic reports with the SEC, which after 2002 effectively requires issuers to comply with SOX given that most of its provisions have been formally incorporated into the periodic reports themselves. As a result, many of the buyouts frequently cited to illustrate how SOX has driven companies to go private—such as those of Toys "R" Us, Neiman Marcus, and HCA—have actually resulted in private companies that continue to comply with SOX (including, most notably, § 404's internal controls requirement).

To avoid these problems, this Article turns to a previously unexamined natural experiment to test the hypothesis that the compliance in the steady rise of going-private transactions between 2002 and 2005); John Thain, Sarbanes-Oxley: Is the Price Too High? Wall St J A20 (May 27, 2004) ("[A] fifth of U.S. public corporations are considering going private because of the costs of governance regulations."); Larry Ribstein, Market vs. Regulatory Reponses to Corporate Fraud: A Critique of the Sarbanes-Oxley Act of 2002, 28 J Corp L 1, 39 (2002) ("Sarbanes-Oxley's enhanced disclosure and other requirements effectively impose a tax on public ownership of stock. Firms can avoid this tax by buying their shares and 'going private,' thereby freeing themselves of 1934 Act reporting requirements.").


6 In addition to the enhanced regulatory burden facing public companies after SOX, the Committee on Capital Markets Regulation also cited enhanced liability risk as a principal cause for the apparent diminished competitiveness of US capital markets. See Capital Markets Report at 5 (cited in note 3).
costs of SOX have caused firms to go private. In particular, the fact that a high-yield debt offering results in ongoing SEC reporting obligations provides a unique opportunity to examine, in isolation from other factors that might have contributed to the decision to go private, how firms that went private viewed SOX’s additional compliance burdens. Regardless of why particular firms went private, if firms viewed the compliance costs of SOX as excessive, the enactment of SOX should have resulted in a decrease in the incidence of going-private transactions funded with high-yield debt in favor of other forms of “SOX-free” finance. The hypothesis is made all the more tenable given that at approximately the same time that SOX increased the cost of issuing high-yield debt, innovations in the market for private debt instruments resulted in an explosion in the availability of second-lien loans and mezzanine debt, which are not subject to SOX.

Using a unique dataset of going-private transactions, I provide the first systematic analysis of the extent to which going-private firms have remained SEC reporting companies on account of high-yield debt financing surrounding the enactment of SOX. Consistent with prior analyses, I find a sharp increase in the rate at which publicly traded companies have gone private since SOX was enacted. The data presented here also reveal, however, that the overall rate at which these companies have elected to remain SEC reporting companies due to the use of high-yield debt financing has remained largely unchanged from the period prior to SOX. Indeed, for large going-private transactions, the rate at which formerly publicly traded companies have remained SEC reporting companies after going private has significantly increased since SOX’s enactment. It is only when one controls for this greater incidence of high-yield debt financing among large going-private transactions that it becomes possible to detect a marginal decrease after SOX in the likelihood that a publicly traded company opting to go private will remain an SEC reporting company following the transaction.

This Article makes two contributions to the growing literature on SOX and going-private transactions. First, to date this is the only Article on SOX that expressly grapples with the fact that in going private, firms have a choice about whether to remain subject to its provisions. In so doing, it corrects a significant bias in prior studies that equate going private with exemption from SOX and provides considerable evidence that the wave of large-scale buyouts that swept the US economy during 2003 to 2007 was not driven by the costs of SOX.

Second, this Article provides a unique insight into how participants in a sophisticated, largely unregulated capital market view the disclosure obligations of SOX. Although frequently criticized for mandating a
A rigid, one-size-fits-all approach to corporate fraud detection, SOX does not by its terms apply to the issuance and trading of high-yield debt. Rather, it is through indenture covenants—an instrument of private ordering—that high-yield investors and issuers have subjected themselves to its provisions. As such, this Article provides an important counterpoint to those studies documenting the inefficiencies of SOX; in some markets, SOX may actually represent an efficient disclosure regime.

The remainder of this Article proceeds as follows. Part I provides an overview of going-private financing structures, followed by an explanation of how SOX can apply to firms that go private when these firms finance a going-private transaction with high-yield debt. Part II develops the hypothesis that going-private transactions should migrate away from high-yield debt financing after 2002 given the costs of SOX compliance and the abundance of other forms of “SOX-free” debt financing. Part III tests this hypothesis by presenting evidence of the rate at which firms have gone private but have remained public reporting companies both before and after the enactment of SOX on account of the use of high-yield debt financing.

I. BACKGROUND: GOING-PRIVATE FINANCING AND SOX

A. An Overview of Going-private Financing

Although going-private transactions can be structured in a variety of ways, they most commonly result when a private firm uses cash to acquire the publicly held stock of a publicly traded company. Often, the

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7 Consider Ribstein, 28 J Corp L at 3 (cited in note 4) (arguing that, even with all their imperfections, “contract and market-based approaches are more likely than [SOX] to reach efficient results” in fraud detection and prevention).

8 See, for example, Kate Litvak, The Effect of the Sarbanes-Oxley Act on Non-US Companies Cross-listed in the US, 13 J Corp Fin 195, 196 (2007) (documenting significant, negative abnormal returns associated with the enactment of SOX on cross-listed foreign companies that are subject to its provisions, especially for those companies that are located in jurisdictions having relatively strong corporate governance laws).

9 Although going-private transactions have been the subject of countless studies, analyses differ on exactly what it means to “go private.” The conceptual confusion no doubt arises from the fact that what we conventionally call a “public” company has two public characteristics. First, its equity securities will be traded on either a national securities exchange or electronic trading platform, and, second, the company will be subject to the periodic reporting requirements of the Securities and Exchange Act of 1934 (“Exchange Act”), Pub L No 73-291, 48 Stat 881, codified as amended at 15 USC § 78a et seq. Studies of going-private transactions tend to be inconsistent with regard to which one of these characteristics matters for purposes of distinguishing a public company from a private company, and consequently, what it means to go from being “public” to “private.” For instance, most studies of going-private transactions have focused on whether the equity securities of a publicly traded company are acquired by a private firm, generally ignoring whether the surviving company might still be subject to the Exchange Act periodic reporting requirements. See, for example, Kenneth Lehn and Annette Poulsen, Free Cash Flow and Stock-
acquiring company is simply a preexisting private company (generally referred to as a strategic buyer) that merges the operations of the two firms. In other cases, the acquiring company is a newly formed shell corporation created for the sole purpose of merging with a public company and buying out its public stockholders. In this latter situation, the actual buyer is typically one or more private-equity firms or private investors (generally referred to as financial buyers) who form the acquisition corporation for the sole purpose of executing the transaction.

Whether initiated by a strategic or financial buyer, going-private transactions entail buying out a target company's public shareholders, thus making it imperative for a buyer to identify a source of acquisition financing. For financial buyers, the need for external financing is particularly acute given that the newly formed acquisition company will ordinarily have no preexisting business or assets on which to draw. For example, in a typical leveraged buyout (LBO) sponsored by a private-equity firm, the private-equity sponsor will generally secure financing

holder Gains in Going Private Transactions, 44 J Fin 771, 771 n 1 (1989) ("In going private transactions, shareholders of a publicly held corporation are bought out, typically at a large premium, by a bidder who takes a concentrated ownership position in a reconstituted, privately held firm."). Others, however, have focused on whether a publicly traded company ceases to file reports with the SEC, even though the company's stock might continue to trade publicly in the over-the-counter bulletin board or "Pink Sheets." See, for example, Stanley B. Block, The Latest Movement to Going Private: An Empirical Study, 14 J Applied Fin 36, 40-43 (Spring/Summer 2004) (examining a sample of going-private firms that ceased to be subject to the Exchange Act reporting requirements because of either a merger, reverse stock split, self-tender offer, or voluntary deregistration under the Exchange Act). In general, because a company's obligation to file reports with the SEC will cease if each class of securities is held by fewer than three hundred recordholders, this latter category of studies will include companies that are acquired by private companies as well as companies that otherwise reduce below three hundred their number of recordholders (for example, through a reverse stock split or self-tender offer). Still others have defined a going-private transaction as any transaction subject to the SEC's "going-private" regulations set forth in Regulation 13e-3. This last category of studies represents something of a middle-ground approach in that 13e-3 transactions include public companies acquired by private companies (but only so long as the acquiring company is affiliated with the public target pursuant to Rule 13e-3) as well as companies that reduce the number of record stockholders below three hundred, thereby terminating the companies' SEC reporting obligations. See Ellen Engel, Rachel M. Hayes, and Xue Wang, The Sarbanes-Oxley Act and Firms' Going Private Decisions, 44 J Acct & Econ 116, 117-18 (2007); Carney, 55 Emory L J at 149 (cited in note 4).

This Article adopts the traditional definition of a going-private transaction as an acquisition of a publicly traded company by a private company given that most analyses of the relationship between SOX and going-private transactions either use this definition explicitly or implicitly by relying on Form 13e-3 filings. Compare, for example, Capital Markets Report at 34–35 (cited in note 3) (using this definition explicitly); Ehud Kamar, Pinar Karaca-Mandic, and Eric Talley, Going-private Decisions and the Sarbanes-Oxley Act of 2002: A Cross-country Analysis, 25 J L, Econ, & Org (forthcoming 2009) (same), with Engel, Hayes, and Wang, 44 J Acct & Econ at 117–18 (using this definition implicitly); Carney, 55 Emory L J at 149 (cited in note 4). In contrast to prior studies, however, this Article addresses directly the difficulties of using this definition to analyze the effects of SOX on going-private transactions—namely, that public targets may still be subject to the Exchange Act reporting obligations after an acquisition, and consequently, to most of the provisions of SOX.
from two main sources: (1) cash contributions from the private-equity firm itself and the company's future managers, and (2) the cash proceeds from one or more loans made to the acquisition company. These two sources of acquisition financing—equity contributions and loan proceeds—are then used to fund the purchase of the target's shares from its shareholders, often by means of a merger.\(^\text{10}\) See Figure 1 below.

FIGURE 1
TYPICAL LBO STRUCTURE

At first blush, a strategic bidder might appear to have less of a need to turn to external financing sources when executing a take-private acquisition. Given that a strategic bidder operates a preexisting business, it should presumably be able to use its retained earnings to finance all or part of the acquisition consideration. In many cases, however, a company's existing cash on hand will simply be insufficient to fund an acquisition of a publicly traded company. More importantly, even if a company's cash were sufficient, using it in this fashion would often

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\(^{10}\) Within this general structure, the operation of the private-equity industry creates a further incentive for private-equity firms to minimize the amount of equity contributions made to finance an LBO and to maximize the amount of debt financing. In particular, the success of a private-equity firm in raising future investment funds from its outside investors will ordinarily turn on the firm's ability to realize significant returns on its equity investments. See Robert P. Bartlett III, *Venture Capital, Agency Costs, and the False Dichotomy of the Corporation*, 54 UCLA L. Rev 37, 72–73 (2006) (arguing that market pressures and carried interest compensation structures encourage venture capital investors to focus on achieving positive returns). Because financing an LBO with considerable amounts of debt financing can greatly enhance a private-equity firm's return on investment, most private-equity firms will therefore seek to use the smallest equity contribution possible when arranging acquisition financing. The end result is that most LBOs are financed with considerable amounts of external debt financing. During the 1980s buyout boom, for instance, LBOs used an average debt-to-firm value ratio of almost 90 percent for completed buyouts. See Steven N. Kaplan and Jeremy C. Stein, *The Evolution of Buyout Pricing and Financial Structure in the 1980s*, 108 Q J Econ 313, 325–26 (1993) (documenting the trend of increasing leverage for LBOs throughout the 1980s). Today, LBOs continue to seek funding primarily from debt financing, with LBOs completed in 2006 averaging a debt-to-firm value ratio of approximately 60 percent. See *M&A Stats* 2 (Standard & Poor's Dec 2006), online at http://lcdncomps.com/utilis/index.pl?b=/tools/ma.pl (visited Jan 11, 2009) (subscription required) ("S&P Leveraged Commentary").
constitute poor financial management. In particular, acquiring a company with a bidder's cash on hand effectively capitalizes the target's business with the bidder's equity, which is unlikely to be an optimal form of capital structure for the target's business. As postulated by Franco Modigliani and Merton Miller in their seminal work on capital structure, a company that uses debt financing to fund its operations can lower its overall cost of capital given that interest payments on debt are tax deductible.11 For similar reasons, a bidder that purchases a company with cash will needlessly increase the target's cost of capital where the target previously used some form of debt financing.12

In light of the practical necessity of securing external financing (particularly debt financing), any bidder considering a going-private transaction must therefore confront the question of where to find it. For many privately held bidders seeking to take private a publicly traded company, the most obvious source of debt financing—traditional bank loans—was effectively closed until the early 1980s. Like a traditional home mortgage, corporate bank loans were historically negotiated as bilateral, individual credit agreements between a bank and a borrower. Consequently, it was the rare bank that could afford to underwrite and carry a loan large enough to support a take-private acquisition given the tremendous amount of debt financing ordinarily needed to effect the transaction.13

Starting in the 1980s, however, commercial banks began to provide loans to finance going-private acquisitions by syndicating a loan's funding requirements among a large group of banks. Within the bank syndicate, a single bank would generally act as the primary arranger in negotiating, drafting, and closing the loan transaction, with each syndicate member holding a proportionate interest in the total loan (generally an amortizing term loan or revolving credit facility).14 By syndicating loans in this fashion, banks could thus reduce some of the investment risk associated with making non-investment-grade—or "leveraged"—loans to fund leveraged acquisitions and, at the same time, could charge high-

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12 In fact, as suggested by W.G. Lewellen, where the cash flows of the acquiring and target firms are less than perfectly correlated, the merger may actually provide an opportunity to increase the total debt capacity of the combined firms, which should further encourage an acquiring firm to fund the acquisition with some portion of debt. See Wilbur G. Lewellen, A Pure Financial Rationale for the Conglomerate Merger, 26 J Fin 521,530-31 (1971).


14 See id.
er interest rates for each loan given a borrower’s overall credit risk. As a result, since the mid-1980s, syndicated, senior-secured bank loans have been a core source of acquisition finance for going-private transactions, providing between 55 and 60 percent of the debt financing needs for LBOs occurring between 1985 and 1990. Today, as in the 1980s, syndicated bank loans continue to dominate the financing structures of LBOs, with bank debt representing over 78 percent of all debt financing used to fund LBOs during 2006.

Notwithstanding the availability of bank loans to fund LBOs, bank debt will often be insufficient to cover all of the debt financing needs of a going-private transaction, creating the need for an additional source of financing. It is the existence of this financing gap that encourages bidders to consider issuing high-yield notes.

B. High-yield Notes and SOX

Like traditional bank loans, high-yield notes represent debt obligations of a bidder, but unlike loans, they are structured as fixed- or variable-rate promissory notes that are sold directly to institutional investors. Moreover, to ensure that the issuance of high-yield notes does not interfere with a bidder’s ability to secure bank debt, the notes must be subordinated in right of payment and security to the primary syndicated loans. For this reason, successful marketing of high-yield notes requires a number of economic incentives, most notably a higher interest rate and the ability to resell the notes in the secondary trading market. To ensure the notes are freely tradable, how-

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15 In general, loans made by banks to corporate borrowers can be divided into two classes: investment-grade and leveraged loans. Investment-grade loans are loans considered to have a low rate of default risk as reflected in the ratings assigned to the loan by one of the recognized debt ratings agencies. Loans rated Baa3/BBB- or higher reflect a judgment by these agencies that the borrower has adequate payment capacity to honor the loans and are therefore considered “investment grade.” See Aswath Damodaran, Corporate Finance: Theory and Practice 122 (Wiley 2d ed 2001) (listing the ratings used by Standard & Poor’s and Moody’s). The lower default risk associated with investment-grade loans makes them easier to obtain from lenders, and at lower interest rates. For a discussion of the manner in which ratings agencies rate loans and bonds and the resulting interest-rate differentials between those rated investment grade and non-investment grade, see id at 177–79.

16 See Kaplan and Stein, 108 Q J Econ at 330–31 (cited in note 10). See also Taylor and Yang, Evolution at 23–24 (cited in note 13) (noting the growth of the syndicated loan market since the 1980s).

17 See S&P Leveraged Commentary at 1 (cited in note 10).

18 Consider Jack S. Levin, Structuring Venture Capital, Private Equity, and Entrepreneurial Transactions § 501.4 (Aspen 2006) (discussing the issues in structuring debt financing for buyouts, including the relation between bank loans and subordinated debt).

19 High-yield notes are traded through a variety of means. The vast majority of bond trading occurs in over-the-counter (OTC) markets whereby sales transactions are privately negotiated among investors based on initial bid and asked quotations carried on the relevant trading system.
ever, a private bidder issuing high-yield notes will generally take two steps that have important consequences under SOX.

First, in connection with issuing the notes, the underwriter of a high-yield debt offering will ordinarily require the bidder to enter into a registration rights agreement committing the bidder to undertake what is commonly called an “A/B Exchange Offer.”\(^7\) Because the issuance of notes constitutes the sale of securities, the issuance will be subject to § 5 of the Securities Act of 1933\(^2\) ("Securities Act"), thereby requiring the bidder to file a formal registration statement with the SEC or to rely on an appropriate exemption.\(^2\) To avoid the delay associated with filing a registration statement, most bidders choose to rely on an exemption such as those provided by Rule 144A\(^3\) (which exempts sales made to qualified institutional buyers) and Regulation S\(^4\) (which exempts sales made to non-US investors).\(^5\) In so doing, however, a bidder significantly limits the marketability of the notes given that the notes will thereafter be deemed “restricted securities” under the Securities Act and subject to a number of resale limitations.\(^6\)

The two most prominent systems are the Private Offers, Resales and Trading through Automated Linkages (PORTAL) system maintained by the National Association of Securities Dealers and the privately published National Daily Quotation Service (NDQS) "Yellow Sheets." PORTAL lists price quotations for notes that were issued pursuant to Rule 144A of the Securities Act of 1933 and is therefore limited to investors eligible under SEC Rule 144A. The Yellow Sheets cover a broad array of corporate bonds and are distributed to subscribing broker-dealers with information regarding the names and telephone numbers of persons expressing an interest in making a market in particular bonds, and often the bid or asked price at which the market maker is willing to buy or sell the security. In addition to these OTC markets, corporate bonds are sometimes listed and traded on national securities exchanges such as the New York Stock Exchange. For an overview of bond trading markets, see Gary B. Wilcox and David M. Rievman, Restructuring Troubled Debt under the New Debt Exchange Rules, 10 Va Tax Rev 665, 688–97 (1991).

20 See William J. Whelan III, The Statutory Arrangement for Public and Private Securities Offerings under the Securities Act of 1933, 1617 PLI/Corp 109, 118 (2007). These exchange offers are also referred to as “Exxon Capital” exchange offers after the seminal SEC interpretive letter that authorized this practice. See Exxon Capital Holding Corp, 1988 SEC No-Act LEXIS 682.


22 See 15 USC § 77e (prohibiting sale or offer of any “security” unless a registration statement is in effect as to the security).

23 17 CFR § 230.144A.


25 See Philip T. Ruegger III, Richard A. Fenyes, and Igor Fert, Trends in Financing and Exit Structures, 1517 PLI/Corp 179, 182–83 (2005) ("High yield offerings that finance LBOs are typically done as private placements that rely on exemptions from registration under the Securities Act by selling to qualified institutional buyers pursuant to Rule 144A and to investors outside the United States pursuant to Regulation S.").

26 In general, the resale restrictions that attach to restricted securities are designed to ensure that a purchaser of unregistered notes is not herself required to register the notes under § 5 of the Securities Act (which prohibits any sale of unregistered securities) upon reselling them. Notwithstanding § 5's broad scope, § 4(1) of the Securities Act provides an exemption from registration for "transactions by any person other than an issuer, underwriter, or dealer." 15 USC § 77d(1). While a seller of restricted securities could seek to rely on this language by itself as a basis for an exemption.
An A/B Exchange Offer permits holders of high-yield notes to avoid these resale limitations. In the offer—which a bidder usually agrees to complete within 180 days of the initial sale of unregistered notes—investors exchange their unregistered high-yield notes for substantially identical notes that are registered with the SEC.²⁷ By exchanging their unregistered notes for registered notes, investors thus cleanse the high-yield notes of their restricted status, thereby significantly enhancing their marketability in the secondary trading market.²⁸

By filing a registration statement covering the replacement notes in the A/B Exchange Offer, however, a bidder becomes an “issuer” under SOX. Specifically, § 2 of SOX defines “issuer” broadly to include any company from registration (often referred to as a “4½ transaction”), most holders of restricted securities seek to resell restricted securities in compliance with either Rule 144 or Rule 144A, which provide two safe harbors by which holders can resell restricted securities without the need for registering the securities with the SEC. Each rule, however, imposes various resale restrictions that effectively limit the marketability of restricted securities. For instance, Rule 144 imposes (among other things) a minimum holding period before restricted securities can be sold, along with limitations on the volume of securities that can be sold at any one time. See 17 CFR § 230.144. Rule 144A provides fewer resale limitations but requires that any sale of restricted securities be made to a qualified institutional buyer (in general, institutional investors that own and invest on a discretionary basis at least $100 million in securities of nonaffiliates). See 17 CFR § 230.144A.

²⁷ See Ruegger, 1517 PLI/Corp at 182 (cited in note 25) (“In U.S. LBOs, companies agree to exchange the privately placed bonds for identical bonds pursuant to a registered transaction with the SEC.”). A company’s failure to complete the A/B Exchange Offer within this time period will generally result in periodic increases of the interest rate payable on the notes until the exchange offer is completed. See id (“If the company fails to register exchange notes and consummate an exchange offer within a specified period of time ... (usually around 180 days), the interest rate on the bonds increases ... up to a specified cap (usually 1% per annum)...”).

²⁸ It should be emphasized that the issuance of “restricted” securities need not impair the functioning of an active secondary trading market. As discussed in note 19, high-yield notes are generally traded in markets limited to institutional investors, more specifically, to those meeting the definition of a “qualified institutional buyer” under Rule 144A. Accordingly, Rule 144A would permit active secondary trading of high-yield notes in these markets without the need for registration so long as issuers provide note holders with the financial information set forth in Rule 144A(d)(4)(i). See 17 CFR § 230.144A(d)(4)(i) (requiring that the issuer disclose the nature of its business, its most recent balance sheet, and other similar financial statements for the two prior years). The need for registration is entirely a product of investor demand. Email from Joel Greenberg, Co-chair of Corporate and Finance Department, Kaye Scholer LLP, to Robert P. Bartlett III (Oct 25, 2007) (noting that many institutional investors are required to hold only registered securities). In addition to an A/B Exchange Offer, registration of notes is also possible by committing the issuer to file a resale registration statement covering the investors’ initial resale of the notes. Using a resale registration, however, will obligate the investors to comply with the prospectus delivery requirements under the Securities Act and will also require the issuer to identify the investors in the registration statement as selling note holders, which potentially exposes investors to liability under the Securities Act. Under the SEC’s Exxon Capital No-action Letter, investors in an A/B Exchange Offer need not comply with the prospectus delivery requirement nor be identified in the registration statement. See Exxon Capital, 1988 SEC No-Act LEXIS 682 at *2-3. As such, a resale registration statement is usually limited to instances where an A/B Exchange Offer is not permitted under Exxon-Capital (for example, the issuance of convertible notes).
the securities of which are registered under [§ 12 of the Securities Exchange Act of 1934] ("Exchange Act") or that is required to file reports under [§ 15(d) of the Exchange Act], or that files or has filed a registration statement that has not yet become effective under the Securities Act of 1933.

Under § 15(d) of the Exchange Act, a company is required to file reports with the SEC commencing on the date that the SEC declares effective a registration statement under the Securities Act covering any type of security, including high-yield notes. Moreover, under the last clause of the definition of "issuer" in § 2 of SOX, a company that merely files a registration statement with the SEC becomes a SOX issuer regardless of whether the SEC declares effective the registration statement. As a result, once a private bidder files a registration statement covering the A/B Exchange Offer, it becomes subject to most of the substantive provisions of SOX for however long it is required to file Exchange Act reports.

To be sure, the obligation to file Exchange Act reports will often be short-lived. Under § 15(d), a bidder's duty to file reports following an A/B Exchange Offer will be automatically suspended for any fiscal year (other than the fiscal year during which the bidder's registration statement became effective) if the securities covered by the registration statement are held of record by fewer than three hundred recordholders and the bidder is not otherwise required to file reports under the Exchange Act. And because high-yield notes—like most publicly traded securities—are held indirectly through securities intermediaries, it is the rare high-yield issuer that has more than three hundred recordholders of its notes. Under § 15(d), most privately owned bidders will

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30 15 USC § 7201(7).
31 15 USC § 78o(d).
32 15 USC § 7201(7).
33 15 USC § 78o(d).
34 See Mark B. Tresnowski and Gerald T. Nowak, The High-yield Offering: An Issuer's Perspective 53 (Merrill 2004) (noting that most high-yield issuers have less than three hundred holders of record because the notes are "held in book-entry rather than certified form"). In general, holding securities in indirect form is the predominant means by which investors settle and clear securities transactions in liquid secondary securities markets. In an indirect system, the beneficial owners are not recorded on the books of the issuer as holders of the securities. Rather, the direct holder is a clearing corporation or other intermediary, such as the Depository Trust Company (DTC) in the United States or Euroclear in Belgium. These intermediaries hold the securities for the benefit of their participants, which are the hundreds (sometimes thousands) of broker-dealers and banks who are themselves interested in trading securities on the secondary market or who have customers who are interested in such trading. Trades by investors in securities are then consummated by entries on the books of these intermediaries without any need for any
therefore be entitled to cease filing periodic reports with the SEC at the end of the fiscal year in which they complete an A/B Exchange Offer.\textsuperscript{35}

It is at this point, however, that private bidders will have to take the second action that has important SOX consequences: issuers of high-yield notes must generally agree to issue the notes pursuant to an indenture containing an express obligation to file periodic reports with the SEC even after the issuer is no longer required to do so under § 15(d) of the Exchange Act.\textsuperscript{36} Although a company in this situation will be only a "voluntary filer" for purposes of the Exchange Act, the bidder will remain subject to most (although not all) of the requirements of SOX. The reason stems from the fact that most of SOX's requirements (such as the internal controls provision of § 404) have been formally incorporated into the Exchange Act's periodic reporting requirements.

Table 1 provides a summary of the key provisions of SOX that apply to private bidders issuing high-yield notes, whether by virtue of being an "issuer" under SOX or a "voluntary filer" under the Exchange Act. Not surprisingly, the messy patchwork of regulations that applies to high-yield issuers has been a constant source of consternation for companies and their attorneys since SOX first took effect.\textsuperscript{37}

\begin{footnotesize}
\begin{itemize}
\item[(35)] See Tresnowksi and Nowak, High-yield Offering at 53 (cited in note 34).
\item[(36)] See id. See also Committee on Trust Indentures and Indenture Trustees, ABA Section of Business Law, Model Negotiated Covenants and Related Definitions, 61 Bus Law 1439, 1535 (2006) ("It is now almost universally true in high-yield indentures that the Company is required to make regular SEC reports to ensure the steady flow of readily accessible information for current holders and prospective holders.").
\item[(37)] See, for example, Joshua L. Targoff, The Sarbanes-Oxley Act's Surprising Impact on Private Equity, 3 Private Equity Rep 1 (Debevoise & Plimpton 2002), online at http://www.debevoise.com/files/Publication/5918db6e-5bff-4fa-bb38-0ea3b0a2156c/Presentation/PublicationAttachment/61f791fb-1481-47a7-bfd7-c4d71edeb774/Fall2002.pdf (visited Jan 11, 2009) ("This on-again, off-again status is one of many examples in the [Sarbanes-Oxley] Act where the treatment of voluntary filers is not altogether clear.").
\end{itemize}
\end{footnotesize}
### TABLE 1
**SIGNIFICANT PROVISIONS OF SOX APPLICABLE TO HIGH-YIELD ISSUERS**

<table>
<thead>
<tr>
<th>Operative Provision</th>
<th>Applies to All “Issuers” and to All Voluntary Filers</th>
<th>Applies only to “Issuers” but Not to Voluntary Filers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management assessment of internal controls (§ 404)</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Principal executive officer and financial officer civil certification (§ 302)</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Principal executive officer and financial officer criminal certification (§ 906)</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Prohibition on extending personal loans to executives (§ 402)</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Forfeiture of bonuses and profits if company issues an accounting restatement as a result of misconduct (§ 304)</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Conditions for use of non-GAAP financial measures (§ 401)</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Audit committee financial expert disclosure (§ 407)</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Code of ethics disclosure (§ 406)</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Disclosure in MD&amp;A of off-balance-sheet arrangements and aggregate contractual obligations (§ 401)</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Restriction on providing non-audit services and requirement of pre-approval of auditing and non-auditing services (§§ 201, 202, and 204)*</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Auditor conflicts of interest (§§ 203 and 206)</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Prohibition on improperly influencing the conduct of audits (§ 303)</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Rapid and current “plain English” disclosure of material changes (§ 409)</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

*Although auditor independence rules do not technically apply prior to the filing of a registration statement, they do apply to the auditors; therefore, as a practical matter, these rules apply even prior to filing the registration statement.

## II. THE AVAILABILITY OF SOX-FREE DEBT FINANCING

Given that a high-yield issuance will ordinarily be the sole reason a private bidder will be subject to SOX, one might reasonably wonder whether privately held bidders might actively seek to avoid high-yield debt just to avoid the costs involved in complying with the legislation. This hypothesis would seem especially appropriate in the post-SOX credit environment where a quiet revolution in syndicated bank lending has dramatically increased the availability of “SOX-free” debt financing.

As noted above, a core source of acquisition financing for going-private transactions has long been the syndicated loans traditionally funded by a syndicate of commercial banks. Beginning in the 1990s,
however, a variety of factors resulted in a significant drop-off in the willingness of commercial banks to fund private, leveraged loans at the same time that a new group of institutional investors emerged as major purchasers of syndicated loan interests. As Figure 2 illustrates, the abrupt transformation of the leveraged lending market from one in which traditional, commercial banks were the primary lenders to one in which these nonbank, institutional investors have become the primary source of lending capital has been nothing short of extraordinary.

**FIGURE 2**

**GROWTH OF NONBANKS IN PRIMARY LEVERAGED LOAN MARKET**

Comprised of high-yield mutual funds, insurance companies, hedge funds, and collateralized loan obligations (CLOs), institutional investors radically redefined the leveraged-loan market during the late 1990s. As documented by Allison Taylor and Ruth Yang, the emergence of these investors facilitated the development of the syndicated-loan market into a mature asset class that only enhanced the attractiveness of syndicated loans as an investment option. A clear indicator of the rapid maturation of the market was the exponential growth of the secondary trad-

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ing market in loan interests. Whereas a total of $8 billion of syndicated loans traded in the secondary market during 1991, the annual trading volume of these loans increased to $238 billion by 2006.\textsuperscript{40} Significantly, the vast majority of these trades—over 80 percent by value—involves leveraged loans.\textsuperscript{41} As a consequence, during the 1990s the leveraged-loan market began to attract investors not only because of the yields on the underlying loans but also because of the opportunity to capitalize on price movements and temporary market inefficiencies.\textsuperscript{42}

The ultimate result of this transformation was a meteoric rise in the demand for leveraged loans. In each of 2004, 2005, and 2006, US leveraged-loan issuances set new records at $265 billion, $295 billion, and upwards of $466 billion, respectively.\textsuperscript{43} For both privately and publicly held companies, the widespread availability of leveraged loans encouraged borrowers that had traditionally used high-yield debt to look increasingly to leveraged loans. As Figure 3 illustrates, by the end of 2006, overall leveraged-loan issuances were four times as large as high-yield bond issuances. Within individual firms, a 2007 study by Fitch Ratings found that the annual growth rate of leveraged loans in bor-

\begin{itemize}
\item \textsuperscript{40} Reuters Loan Pricing Corp, U.S. Secondary Loan Market Volume, online at http://www.loanpricing.com/analytics/pricing_service_volume1.htm (visited Jan 11, 2009).
\item \textsuperscript{41} See Yago and McCarthy, The U.S. Leveraged Loan Market at 25 (cited in note 38).
\item \textsuperscript{42} See id at 26.
\item \textsuperscript{43} See Steven C. Miller and Robert Polenberg, Leveraged Loans: Record-setting Leveraged Loan Market Shows No Signs of Slowing (Yet) (Standard & Poor’s Jan 3, 2007), online at http://www2.standardandpoors.com/portal/site/sp/en/us/page/article/2,1,1,0,1148406249020.html (visited Jan 11, 2009) (reporting US issuances for the first eleven months of 2006); Steven C. Miller, The U.S. Leveraged Loan Market: Huge Deals, Few Bargains (Standard & Poor’s Apr 24, 2006), online at http://www2.standardandpoors.com/portal/site/sp/en/us/page/article/2,1,1,0,1145997542521.html (visited Jan 11, 2009) (reporting US issuances for 2004 and 2005). Much of this growth in demand stemmed from the rapid emergence of CLOs as the dominant institutional investor in the market. See William May, Mariarosa Verde, and Eric Rosenthal, CLOs More Concentrated in Shareholder-friendly and Covenant Light Loans 1 (Fitch Ratings Dec 21, 2006), online at http://www.fitchratings.com/corporate/reports/report_frame.cfm?rpt_id=306304 (visited Jan 11, 2009) (subscription required) (noting that one of the largest sources of increased demand for leveraged loans has been CLOs). A relatively recent financial innovation, CLOs are special-purpose investment funds structured to invest in a portfolio of syndicated loans. Since their debut in the early 1990s, their growth as a popular investment instrument has been remarkable. The amount of outstanding CLOs grew from less than $1 billion in 1994 to nearly $260 billion in 2004, while their share of the leveraged loan market increased from less than 5 percent to over 60 percent during the same time period. See Yago and McCarthy, The Leveraged Loan Market at 22, figure 13 (cited in note 38) (showing growth of CLOs from 1994 to 2002); Miller, The U.S. Leveraged Loan Market (reporting the 2004 value of $260 million); Barry Bobrow, et al, An Introduction to the Primary Market, in Taylor and Sansone, eds, Handbook 155, 165-67 (cited in note 13) (discussing the growth in the share of the leveraged loan market attributed to CLOs). Between 2003 and 2006, more than $200 billion of CLOs were issued, with $105 billion being issued in 2006 alone. See Robert Horton, et al, High Yield and Leveraged Loan Market Review: Fourth Quarter and 2006 4 (Fitch Ratings Feb 5, 2007), online at http://www.fitchratings.com/corporate/reports/report_frame.cfm?rpt_id=312888 (visited Jan 11, 2009) (subscription required).
\end{itemize}
rowers' capital structures was 28 percent—more than three times the 9 percent growth rate of high-yield notes.  

**FIGURE 3**

**US LEVERAGED LOAN AND HIGH-YIELD BOND ISSUANCE**

2001–2006

![Graph showing US leveraged loan and high-yield bond issuance from 2001 to 2006.](image)

In many cases, the role of high-yield notes was taken by a particular type of subordinated leveraged loan, the "second-lien" loan. Also known as junior secured or Tranche B loans, second-lien loans resemble ordinary, syndicated bank loans, but they are subordinated in right of payment and security to the primary "first-lien" bank loans. Although rarely used during the 1990s, second-lien loans became an increasingly important source of subordinated debt after 2003. By 2006, second-lien issues represented 8 percent of total institutional loan volume, commonly crowding out the need for high-yield debt. Table 2, for instance, summarizes the final financing structure for the $18 billion LBO of Georgia-Pacific Corp by privately owned Koch Industries. Notwithstanding the considerable size of the transaction, Koch

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46 See id at 4.

Industries was able to finance its bid entirely with an equity contribution combined with several leveraged loans.44

**TABLE 2**

**GEORGIA-PACIFIC FINANCING**

<table>
<thead>
<tr>
<th>Source of Funds</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equity Contribution from Koch Industries</td>
<td>$7.1 billion</td>
</tr>
<tr>
<td>Senior Secured Term Loan (&quot;Tender Facility&quot;)*</td>
<td>$6.4 billion</td>
</tr>
<tr>
<td>The Merger Facility:</td>
<td></td>
</tr>
<tr>
<td>First-lien Senior Secured Credit Facility</td>
<td>$8.5 billion</td>
</tr>
<tr>
<td>Second-lien Senior Secured Credit Facility</td>
<td>$2.5 billion</td>
</tr>
</tbody>
</table>

*To be repaid with proceeds from the Merger Facility.

Source: Georgia-Pacific Offering Circular at 32–36 (cited in note 47).

Significantly, by turning to leveraged loans in lieu of high-yield debt, a privately held issuer could also avoid subjecting itself to SOX. Participants in the leveraged-loan industry have long maintained that an issuer of loans has no need to conduct a registered offering of loan obligations given that by issuing "loans" rather than "notes" an issuer has not issued any securities within the meaning of federal or state securities laws.49 As a result, an issuer of loans has no need to file a registration statement covering the loan interests, thereby allowing the issuer to avoid becoming an "issuer" under § 2 of SOX. For similar reasons, by concluding that loan interests are not securities, participants in the loan industry have maintained that federal and state securities laws do not apply to the subsequent trading of leveraged loans, thus making it unnecessary for a borrower to file periodic reports with the SEC in order to ensure loan interests are freely tradable.50 In short, by maintaining that loan interests are not securities, the leveraged-loan industry has developed a well-established history of issuing and trading leveraged loans without any attempt to subject borrowers to the regulatory burdens associated with the issuance and trading of high-yield notes.

For privately held bidders, then, the notion that after 2002 a going-private transaction might be financed using entirely private, SOX-free debt was hardly idle speculation. If privately held bidders really wanted to avoid the hassle of complying with SOX after a high-yield issuance, SOX-free financing alternatives were available, as illustrated by the

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44 Id at 32–36.
49 See, for example, Tiziana M. Bason, et al, *Effects of the Legal Characterization of Loans under the Securities Laws*, in Taylor and Sansone, eds, *Handbook* 85, 87 (cited in note 13) (noting how the conclusion that loan interests are not securities "remains fundamental to the market's development and operation").
50 See id.
buyout of Georgia-Pacific. As summarized by the head of corporate finance at Latham & Watkins LLP, “People are annoyed, to say the least, by SOX. And so the alternatives—to do a mezzanine financing or a second-lien deal—are more attractive than they used to be. That’s because these alternative forms of junior capital don’t drag the whole Sarbanes-Oxley program with them.”

III. EMPIRICAL FINDINGS

A. Methodology and Data Description

To better understand whether the regulatory costs of SOX contributed to the rise in going-private transactions following its enactment, I analyzed the financing decisions for all going-private transactions that occurred during the four years prior to the year of SOX’s enactment (1998–2001) and the four years after it (2003–2006) and that involved nonfinancial US target firms that had publicly traded equity securities on either the New York Stock Exchange (NYSE), the American Stock Exchange (ASE), or the Nasdaq Stock Market. The year 2002 was excluded given the difficulty of discerning whether transactions that closed in the first half of that year might have been influenced by the anticipation of the new statute, which was formally enacted in July 2002. By excluding 2002, the sample thus permits a clean comparison of those transactions that were structured before the market was aware of the costs of SOX and those transactions that were structured after such awareness was widespread.

To assemble the sample, I first compiled a listing of all firms that had any equity securities delisted from the three exchanges as recorded in the historical delisting data maintained by the Center for Research in Security Prices (CRSP). Because CRSP maintains comprehensive price and trading information for all securities listed on these three exchanges, this approach had the benefit of providing a comprehensive list of all firms trading on the three major US stock exchanges that might have gone private. This methodology also avoided the pitfalls of other studies of going-private transactions, which have tended to rely on Schedule 13e-3 filings, Form 15 filings, or the database of acquisitions maintained by Thomson Financial Securities Data Company. For

52 See note 9.
a variety of reasons, these methods tend to either overstate or understate the number of going-private transactions.\textsuperscript{53}

For each security that was recorded in CRSP as having been delisted, data was then hand collected from the issuer’s Exchange Act filings on the SEC’s EDGAR system to confirm whether the delisting represented an acquisition of the issuer’s publicly traded stock by another firm. After excluding equity recapitalizations not involving a change in control and acquisitions by foreign companies, this process yielded a total of 2,269 acquisitions. The SEC filings for each target corporation were then further examined to determine whether the stock of the acquiring firm was publicly traded or privately held. Overall, 468 of the 2,269 acquisitions were initiated by privately held bidders.

B. Descriptive Statistics

Table 3 provides summary statistics for the full acquisition sample.

\textsuperscript{53} In particular, studies relying entirely on Schedule 13e-3 filings—see, for example, Engel, Hayes, and Wang, 44 J Acct & Econ at 117–18 (cited in note 9) (using a sample of firms making Form 13e-3 filings to examine the effect of SOX on firms’ going-private decisions); Carney, 55 Emory L J at 149 (cited in note 4) (same)—understate the number of going-private transactions given that a Schedule 13e-3 need not be filed for a take-private transaction initiated by a bidder that is not affiliated with the target or the target’s management. See 17 CFR § 240.13e-3(a). As such, these studies omit take-private acquisitions by an unrelated private company as well as many conventional LBOs sponsored by private-equity firms. On the other hand, studies that use those firms that filed a Form 15 covering their equity securities—that is, the primary form notifying the SEC that a class of securities is held by fewer than three hundred persons—will often be overinclusive. See, for example, Block, 14 J Applied Fin at 41–42 (cited in note 9). In this case, the sample will include many firms that continue to have their equity publicly traded on the OTC market or that may still have other securities (in particular debt securities) that require the company to file periodic reports with the SEC. Likewise, studies that have used Thomson’s Securities Data Company Platinum database (SDC) of acquisitions to identify going-private transactions will also be overinclusive. See, for example, Kamar, Karaca-Mandic, and Talley, Going-private Decisions at 13 (cited in note 9). By relying on SDC’s coding scheme in which bidders are classified as “public” or “private,” these studies assume that all “private” bidders—as well as the surviving firm—are immune to the SEC periodic reporting requirements. For the reasons discussed in Part I, private bidders will often remain subject to the Exchange Act by virtue of having issued high-yield debt either prior to the acquisition or in connection with the acquisition.
**TABLE 3**

This Table reports summary statistics on size and deal characteristics for the sample of 2,269 acquisitions of publicly traded companies trading on the NYSE, the Nasdaq Stock Market, and ASE. Data are reported for the full sample and by the type of winning bidder. “Publicly Traded Bidder” is a US bidder having publicly traded equity securities at the time of the acquisition. “Privately Owned Bidder” is a US bidder that is privately held at the time of the acquisition. “Market Value of Target Equity” is the average value of target’s equity (stock price \( x \) shares outstanding) over the thirty days prior to the acquisition’s closing date.

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Acquisitions</th>
<th>Publicly Traded Bidders</th>
<th>Privately Owned Bidders</th>
<th>Percent Public Bidders</th>
<th>Market Value of Target Equity Acquired by Public Bidders</th>
<th>Market Value of Target Equity Acquired by Private Bidders</th>
<th>Percent Equity Acquired by Public Bidders</th>
<th>Percent Equity Acquired by Private Bidders</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>398</td>
<td>336</td>
<td>62</td>
<td>84.4</td>
<td>$372,181,214</td>
<td>$339,620,151</td>
<td>$12,561,162</td>
<td>96.6 3.4</td>
</tr>
<tr>
<td>1999</td>
<td>447</td>
<td>378</td>
<td>69</td>
<td>84.6</td>
<td>$637,673,759</td>
<td>$626,900,576</td>
<td>$10,773,183</td>
<td>98.3 1.7</td>
</tr>
<tr>
<td>2000</td>
<td>450</td>
<td>372</td>
<td>78</td>
<td>82.7</td>
<td>$824,533,417</td>
<td>$809,241,546</td>
<td>$15,291,871</td>
<td>98.1 1.9</td>
</tr>
<tr>
<td>2001</td>
<td>314</td>
<td>262</td>
<td>52</td>
<td>83.4</td>
<td>$373,726,807</td>
<td>$364,140,461</td>
<td>$9,586,347</td>
<td>97.4 2.6</td>
</tr>
<tr>
<td>Subtotal</td>
<td>1609</td>
<td>1348</td>
<td>261</td>
<td>83.8</td>
<td>$2,208,115,297</td>
<td>$2,159,902,734</td>
<td>$48,212,563</td>
<td>97.8 2.2</td>
</tr>
<tr>
<td>2003</td>
<td>163</td>
<td>106</td>
<td>57</td>
<td>65.0</td>
<td>$119,947,279</td>
<td>$111,836,992</td>
<td>$8,110,287</td>
<td>93.2 6.8</td>
</tr>
<tr>
<td>2004</td>
<td>149</td>
<td>102</td>
<td>47</td>
<td>68.5</td>
<td>$134,275,805</td>
<td>$95,355,247</td>
<td>$38,920,558</td>
<td>71.0 29.0</td>
</tr>
<tr>
<td>2005</td>
<td>152</td>
<td>115</td>
<td>37</td>
<td>75.7</td>
<td>$340,110,634</td>
<td>$289,188,815</td>
<td>$50,921,819</td>
<td>85.0 15.0</td>
</tr>
<tr>
<td>2006</td>
<td>196</td>
<td>130</td>
<td>66</td>
<td>66.3</td>
<td>$368,195,411</td>
<td>$286,851,337</td>
<td>$81,344,074</td>
<td>77.9 22.1</td>
</tr>
<tr>
<td>Subtotal</td>
<td>660</td>
<td>453</td>
<td>207</td>
<td>68.6</td>
<td>$962,529,130</td>
<td>$783,232,392</td>
<td>$179,296,737</td>
<td>81.4 18.6</td>
</tr>
<tr>
<td>Total</td>
<td>2269</td>
<td>1801</td>
<td>468</td>
<td>79.4</td>
<td>$3,170,644,426</td>
<td>$2,943,135,126</td>
<td>$227,509,301</td>
<td>92.8 7.2</td>
</tr>
</tbody>
</table>

In general, the figures in Table 3 differ only modestly from other studies of going-private transactions. Figure 4, for instance, compares the annual rates of going-private transactions in Table 3 with the data on going-private transactions used by the Committee on Capital Markets Regulation. As Figure 4 illustrates, acquisitions of NYSE-, Nas-

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54 See Capital Markets Report at 34–35 (cited in note 3). The Committee on Capital Markets Regulation obtained its data on the annual rates of going-private transactions from Mergerstat Review. See id at 35. Because of the publication date of the Capital Markets Report, Mergerstat had yet to publish the data on the incidence of going-private transactions beyond 2004. To permit comparison with the data presented in this Article, I therefore supplemented the data provided in the Capital Markets Report by obtaining directly from Mergerstat the incidence of going-
daq-, and ASE-traded companies clearly conformed to the general rise in going-private transactions after the enactment of SOX in 2002. In fact, the data for the NYSE, Nasdaq, and ASE firms suggest even a greater rise in going-private transactions after SOX, with private bidders accounting for an average of 31 percent of all acquisitions between 2003 and 2006. Figure 5 shows that when the data are analyzed in terms of the market value of equity that was delisted in connection with each acquisition, the trend is equally striking. Clearly, privately held bidders had a greater relative presence in the public takeover market in the four years following SOX in terms of both transaction volume and the market value of equity acquired.

**Figure 4**

**GOING-PRIVATE TRANSACTIONS AS A PERCENTAGE OF ALL ACQUISITIONS, MAIN SAMPLE VERSUS FINDINGS OF COMMITTEE ON CAPITAL MARKETS REGULATION**

![Graph showing going-private transactions as a percentage of all acquisitions](image)

- Going-private Transactions as a Percentage of All Acquisitions in Sample
- Going-private Transactions as a Percentage of All Acquisitions Using Data Relied on by Committee on Capital Markets Regulation

These aggregate figures ignore, however, the extent to which target firms acquired by private bidders might still be subject to SOX. As shown in Table 4, approximately 28 percent (n = 130) of the listed companies that went private in the sample remained Exchange Act reporting companies or became Exchange Act reporting companies within twelve months of the transaction. Table 4 provides a breakdown of the primary reasons why these “private firms” remained public reporting companies. As the table reveals, the vast majority of these companies (75 percent) remained Exchange Act filers due to either the bidder’s use of high-yield acquisition financing followed by an A/B Exchange Offer (an “A/B Exchange Transaction”) or the assumption of a target’s preexisting high-yield debt. An additional 12 percent remained reporting companies because the private bidder had its own preexisting high-yield debt or because the surviving firm would complete a high-yield debt offering within twelve months of the transaction. Thirteen percent of the companies remained reporting companies due to the listing of the bidder’s equity securities in connection with the acquisition or because the surviving firm conducted an offering of equity securities to the public within twelve months of the acquisition.
This Table reports summary statistics regarding the reasons why 130 of the 468 going-private transactions resulted in surviving firms with continuing SEC reporting obligations. Observations were limited to those firms that became an SEC reporting company within twelve months of the closing date of the going-private transaction.

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td></td>
<td>High-yield Acquisition Financing Followed by A/B Exchange Offer</td>
</tr>
<tr>
<td>Year</td>
<td>Total</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>1998</td>
<td>29</td>
</tr>
<tr>
<td>1999</td>
<td>22</td>
</tr>
<tr>
<td>2000</td>
<td>17</td>
</tr>
<tr>
<td>2001</td>
<td>11</td>
</tr>
<tr>
<td>Subtotal:</td>
<td>79</td>
</tr>
<tr>
<td>2003</td>
<td>10</td>
</tr>
<tr>
<td>2004</td>
<td>12</td>
</tr>
<tr>
<td>2005</td>
<td>10</td>
</tr>
<tr>
<td>2006</td>
<td>19</td>
</tr>
<tr>
<td>Subtotal:</td>
<td>51</td>
</tr>
<tr>
<td>Total:</td>
<td>130</td>
</tr>
</tbody>
</table>

Overall, these data suggest that prior studies and reports regarding the rise in going-private transactions after SOX may have dramatically overstated the extent to which SOX drove firms to go private following its enactment. Certainly, the data confirm that going-private transactions accounted for a greater proportion of all public company acquisitions in the period 2003–2006, but the data also make clear that a large proportion of these going-private transactions resulted in firms that remained Exchange Act reporting companies and, consequently, subject to SOX after 2002. Specifically, in each year of the study, anywhere from 18 to 47 percent of going-private transactions represented transactions in which the surviving firms remained Exchange Act reporting companies. Based on this fact alone, one might reasonably question the reliability of studies that purport to draw conclusions...
about the effect of SOX by looking simply at the relative number of going-private transactions since its enactment.

Moreover, using the proportion of going-private transactions to analyze the effect of SOX is further complicated by the considerable falloff after 2002 in public-bidder activity in general. Whereas an average of 337 public bidders completed acquisitions each year during the period 1998–2001, the annual average fell to only 113 during the period 2003–2006. A t-test indicates that this difference in averages is statistically significant at the 1 percent confidence level ($p = 0.0002$, two-tailed). In contrast, the annual average of going-private transactions fell modestly and insignificantly between the periods 1998–2001 and 2003–2006, from 65 to 52 ($p = 0.156$, two-tailed). Consequently, the increased proportion of going-private transactions after 2002 was driven not by any absolute increase in private-bidder activity but by a dramatic falloff in public-bidder activity. To be sure, this finding is consistent with the hypothesis that SOX created a competitive disadvantage for public bidders, but it is also consistent with explanations having little to do with SOX. For instance, to the extent that the bull stock market of the late 1990s might have encouraged public bidders to pursue stock-for-stock transactions, the collapse of the stock market after 2001 might have simply restored the normal equilibrium between public bidders and private bidders.

C. SOX and the Use of High-yield Debt Financing

To avoid these analytical difficulties, a more manageable examination of the hypothesis that SOX has encouraged companies to go private is to focus on the rate at which public targets remained Exchange Act reporting companies after an acquisition by a private bidder. If the costs of SOX truly encouraged companies to go private, then one should observe after 2002 a general decline in the rate at which publicly traded targets elected to remain Exchange Act reporting companies after their acquisition. As noted previously, this would seem especially true given the ready availability of SOX-free forms of acquisition finance during the period 2003–2006.

As shown in Figure 6, however, the overall data do not support this hypothesis. On the contrary, the rate at which public targets remained Exchange Act reporting companies following a going-private transaction consistently increased between 2003 and 2006. Isolating those transactions that were financed through an A/B Exchange Transaction indicates a similar trend. As Figure 6 reveals, in contrast to the Georgia-Pacific buyout discussed above, the buyout wave that occurred during 2003–2006 continued to use high-yield debt as a principal component of acquisition financing.
Moreover, comparing the period 1998-2001 against the period 2003-2006 reveals no significant difference in the proportion of public targets that remained Exchange Act reporting companies following a going-private transaction. Overall, approximately 30 percent of the going-private transactions that occurred from 1998 to 2001 resulted in surviving firms that remained subject to the Exchange Act reporting requirements, compared to 25 percent during the 2003-2006 period. Figure 6 reveals that the only major drop in the proportion of public targets that remained Exchange Act reporting companies following a going-private transaction occurred several years prior to SOX in 1998-1999. This considerable falloff is worth noting, as it stemmed from the fact that the late 1990s witnessed a booming high-yield debt market.55 In each of 1997 and 1998, for instance, high-yield debt issuances set record highs on account of extremely favorable credit conditions. The market came to an abrupt halt in the autumn of 1998, however, following Russia's debt default and the near collapse of the highly leveraged hedge fund Long-term Capital Management (LTCM).56

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56 These two events triggered a global “flight to quality” as investors reallocated investment portfolios away from illiquid, high-risk debt securities towards “safer,” highly liquid securities such as US Treasuries. See id at 347–48. As a result, yield spreads between investment- and non-
sample of pre-SOX transactions therefore reflects the tail end of the 1990s boom in high-yield debt issuances.

Yet even including 1998 data, a Pearson chi-square test of the proportion of going-private transactions that resulted in Exchange Act reporting companies during 1998–2001 compared to 2003–2006 reveals little evidence of a statistically significant difference (chi-square = 1.82, df = 1, p = 0.177). There is even less evidence of a significant difference between the two periods when comparing the proportion of going-private transactions that utilized an A/B Exchange Transaction (chi-square = 1.05, df = 1, p = 0.305). In aggregate, these figures suggest SOX may have had very little effect on the general rate at which public targets chose to remain Exchange Act reporting companies following a going-private transaction.

D. Multivariate Analysis of the Use of High-yield Debt Financing

Notwithstanding these overall findings, it is important not to place too great a weight on these aggregate figures, as they raise a number of potential problems in testing the hypothesis that SOX has encouraged companies to go private. In particular, the absence of any significant difference in the rate at which public targets remained Exchange Act reporting companies before and after SOX may be the result of other differences between the two periods in question. But for these differences, post-SOX going-private transactions might reveal a larger proportion of private bidders opting to avoid the burdens of the Exchange Act reporting requirements and, therefore, the costs of SOX.

Predicting exactly which variables influence private bidders to become Exchange Act reporting companies (and, relatedly, how these variables change over time) is beyond the scope of this Article, but there are at least two variables of particular interest for the purposes of this study. First, as noted above, several of the acquisitions in the pre-SOX sample occurred during a period of remarkably high demand for high-yield debt until Russia’s debt default and the collapse of LTCM in 1998. Data on high-yield issues after 2002 likewise suggests that many of the going-private transactions after 2004 occurred during a period of buoyant demand for high-yield debt among institutional investors. To the extent robust credit markets encourage the use of investment-grade corporate bonds widened dramatically, bringing an abrupt halt to the booming corporate bond market. See id at 348.

high-yield debt to finance a going-private transaction, the increased rate at which companies went private but stayed public after 2002 might simply reflect the strength of the post-SOX credit markets. In other words, but for SOX, we might see considerably more going-private transactions that were funded through an A/B Exchange Transaction after 2002 than actually occurred.

Second, the debate about the costs of SOX requires an examination of one additional variable. Namely, the significant rate at which private bidders opted to become Exchange Act reporting companies after 2002 may stem from the well-documented trend of private-equity firms to acquire ever larger public targets between 2004 and 2006.\textsuperscript{58} If high-yield debt financing is a practical necessity to fund large acquisitions, the presence of these larger transactions after 2003 might require private-equity bidders to turn increasingly to high-yield debt markets and, consequently, to A/B Exchange Transactions notwithstanding their SOX implications. If true, the continued use of A/B Exchange Transactions after 2002 would, in turn, mask the extent to which bidders in smaller acquisitions have opted to use SOX-free forms of debt financing in lieu of high-yield debt financing. Stated differently, our examination so far has ignored an important criticism often leveled at SOX: that the cost of compliance is disproportionately higher for smaller public companies.\textsuperscript{59} Might these disproportionate costs be encouraging smaller public companies to avoid, after 2002, going-private structures that would subject them to SOX?

To understand these two considerations, it is important to establish as a threshold matter whether there exists a relationship between the use of an A/B Exchange Transaction and either of these two variables—that is, the demand for high-yield debt or the size of a particular going-private transaction. Table 5 presents a correlation matrix that confirms a strong relationship in both cases for all going-private transactions in the main sample ($n = 468$). Specifically, the second row of Table 5 reveals a significant, negative correlation between whether a going-private transaction used an A/B Exchange Transaction and the credit spread for high-yield bonds as of the closing date of each transaction.\textsuperscript{60} Because

\textsuperscript{58} From 2004 to 2006, the average size of LBOs increased approximately 40 percent per year from an average of $706 million in 2004 to $1.3 billion in 2006. See S&P Leveraged Commentary at 1 (cited in note 10) (documenting the average LBO size from 1997 to the fourth quarter of 2007).

\textsuperscript{59} See Edud Kamar, Pinar Karaca-Mandic, and Eric L. Talley, Sarbanes-Oxley’s Effects on Small Firms: What is the Evidence? *3 (Harvard Law and Economics Discussion Paper No 588, June 2007), online at http://ssrn.com/abstract=993198 (visited Jan 11, 2009) (suggesting that SOX may have a disproportionate effect on small companies because they have fewer resources and lower economies of scale, and receive less benefit from increased investor confidence than larger companies).

\textsuperscript{60} Credit spreads were measured as of the closing date for each going-private transaction by taking the difference between Moody’s Seasoned Baa Corporate Bond Yield and the Ten-year Trea-
credit spreads for high-yield bonds narrow with greater demand for high-yield debt securities, this relationship confirms a significant, positive correlation between whether a going-private transaction used an A/B Exchange Transaction and the demand for high-yield bonds at the time of the transaction. Likewise, using a target's book value of assets as a proxy for transaction size, the third row of Table 5 reveals a strong, positive correlation between the size of a target and whether the target was acquired using an A/B Exchange Transaction.

**TABLE 5**

**CORRELATION MATRIX EXAMINING INCIDENCE OF A/B EXCHANGE TRANSACTIONS**

This Table presents pairwise correlation coefficients for (1) whether a transaction utilized an A/B Exchange Transaction ("A/B Exchange"); (2) the credit spread for high-yield bonds as of the closing date of each transaction, measured by taking the difference between Moody's Seasoned Baa Corporate Bond Yield and the Ten-year Treasury Constant Rate for such date (denoted "High-yield Spread"); (3) the natural log of the book value of the target's assets as reported in the target's last SEC filing prior to the date of acquisition ("Log(Assets)"); and (4) whether the transaction occurred during the period 2003-2006 (denoted "Post-SOX"). The numbers in parentheses are the probability levels (p-values) of observing these coefficients by chance alone using two-tailed tests.

<table>
<thead>
<tr>
<th>A/B Exchange</th>
<th>High-yield Spread</th>
<th>Log(Assets)</th>
<th>Post-SOX</th>
</tr>
</thead>
<tbody>
<tr>
<td>A/B Exchange</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High-yield Spread</td>
<td>-0.1694 (0.000)</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Log(Assets)</td>
<td>0.4167 (0.000)</td>
<td>-0.2342 (0.000)</td>
<td>1.00</td>
</tr>
<tr>
<td>Post-SOX</td>
<td>0.0475 (0.306)</td>
<td>-0.2620 (0.000)</td>
<td>0.1648 (0.000)</td>
</tr>
</tbody>
</table>

In addition to confirming each of these two relationships, Table 5 also reveals how each of these variables changed before and after the enactment of SOX. In particular, the fourth row in Table 5 indicates that

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61 Data for each firm's book value of assets was collected from Compustat, in each case as measured for the financial quarter immediately preceding the date of the going-private transaction. Data for firms not included in Compustat was hand collected from EDGAR. As discussed below, the majority of going-private transactions involved companies having less than $300 million in total assets, which results in a positively skewed distribution of data. All analyses involving target assets were therefore done after a logarithmic transformation. The results in Table 3 are unchanged if the market value of target's delisted equity is used in lieu of target's total assets.
a significant, positive correlation exists between whether a going-
private transaction occurred after 2002 and (1) the demand for high-
yield debt after 2002, and (2) the size of a target. These latter results
thus confirm the conventional wisdom that the period 2003–2006 was
characterized by both larger going-private transactions as well as strong
demand for high-yield debt. Consistent with the finding reported above,
however, Table 5 also shows no significant difference between the pe-
riods 1998–2001 and 2003–2006 in the rate at which going-private trans-
actions used an A/B Exchange Transaction. Overall, Table 5 is there-
fore highly suggestive that after 2002, the continued use of A/B Ex-
change Transactions in the face of SOX resulted from the fact that
private bidders increasingly turned to favorable high-yield markets to
fund ever-larger going-private transactions.

This conclusion is further supported by the dearth of small public
targets among those transactions that were financed with high-yield
debt. Table 6 breaks down the incidence of A/B Exchange Transactions
by target size within the sample of going-private transactions. Following
James Linck, Jeffry Netter, and Tina Yang, size categories were formed by
ranking the sample of target firms into quintiles based on their book val-
ue of assets. Firms were labeled “small” if they fell within the first two
quintiles and “medium” if they fell within quintiles three and four. To
isolate the effect that very large transactions might have on the overall
rate at which firms remained Exchange Act reporting companies, the
fifth quintile was divided into “large” and “very large” firms. Specifical-
ly, a firm was labeled “large” if it fell within the eightieth to ninetieth
percentile and “very large” if it fell above the ninetieth percentile. The
mean (median) book values of assets for small, medium, large, and very
large targets were $45.6 ($41.7) million, $221.27 ($193.0) million, $668.84
($664.33) million, and $4,027.8 ($1,970.8) million, respectively.

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62 James S. Linck, Jeffry M. Netter, and Tina Yang, The Determinants of Board Structure, 87
INCIDENCE OF A/B EXCHANGE TRANSACTIONS BY TARGET SIZE

This Table reports statistics on the percentage of transactions in the main sample of going-private transactions \( n = 468 \) that used an A/B Exchange Transaction, taking account of the target's size and whether the transaction occurred before or after the enactment of SOX. The actual number of transactions is included in brackets. "Pre-SOX" represents transactions within the sample that occurred during the period 1998–2001; "Post-SOX" represents transactions that occurred during the period 2003–2006. Differences between Pre-SOX and Post-SOX proportions were tested for statistical significance using Fisher’s exact test. The resulting \( p \)-values appear in the last column in parentheses.

<table>
<thead>
<tr>
<th>Target Size:</th>
<th>Number of Targets in Sample</th>
<th>Incidence of A/B Exchange Offers within Each Target Size Category</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-SOX</td>
<td>Post-SOX</td>
</tr>
<tr>
<td>Small</td>
<td>113</td>
<td>75</td>
</tr>
<tr>
<td>Medium</td>
<td>112</td>
<td>75</td>
</tr>
<tr>
<td>Large</td>
<td>25</td>
<td>21</td>
</tr>
<tr>
<td>Very Large</td>
<td>11</td>
<td>36</td>
</tr>
<tr>
<td>Total</td>
<td>261</td>
<td>207</td>
</tr>
</tbody>
</table>

Table 6 shows that while small firms comprise nearly 40 percent of the sample of going-private transactions \( n = 188 \), they accounted for only three of the eighty-one transactions that used an A/B Exchange Transaction. A likely explanation for this finding is that high-yield offerings have traditionally entailed higher fixed costs than other forms of debt financing such as bank loans. Consequently, bidders should be expected to avoid high-yield acquisition financing unless a transaction is sufficiently large that these fixed costs can be amortized over a larger deal value. Visual inspection of the entire sample suggests that this inflection point prior to SOX probably occurred where a target had a book value of assets greater than $75 million. If correct, Table 6 indi-

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63 In addition to underwriting fees, issuers of high-yield debt must prepare offering documents and meet with prospective investors. In the case of an A/B Exchange Offer, there is also the considerable expense of preparing a registration statement to be filed with the SEC and the subsequent cost of making periodic Exchange Act filings. Because the direct costs of issuing bonds tend to be fixed, they will consume a greater proportion of the total gross proceeds of a small offering than a large offering. For instance, Inmoo Lee, et al, found that while the direct costs of an underwritten noninvestment-grade bond offering consumed 2.90 percent of the proceeds where an issuer raised more than $500 million, these direct costs consumed more than 4 percent of the proceeds where an issuer raised less than $40 million in the offering. See Inmoo Lee, et al, The Costs of Raising Capital, 19 J Fin Rsrch 59, 66 (1996).
cates that the enactment of SOX may very well have pushed higher the inflection point whereby bidders begin considering the use of high-yield financing. Whereas three acquisitions of small targets used high-yield financing during 1998–2001, no acquisitions in this size category used this form of financing during the period 2003–2006. Care must be used in interpreting this result, however, as the difference is not statistically significant under conventional standards ($p = 0.277$, Fisher's exact; $p = 0.215$, one-sided Fisher's exact). The finding is further hampered by the low number of total observations of A/B Exchange Transactions involving small targets.

Nonetheless, Table 6 clearly illustrates that the persistence in the use of A/B Exchange Transactions before and after SOX was driven primarily by the acquisitions of targets classified as medium, large, and very large. The incidence of A/B Exchange Transactions among very large targets is especially noteworthy. Whereas the rate of A/B Exchange Transactions fell slightly after SOX among small, medium, and large targets, the rate significantly increased for acquisitions of very large targets. For going-private transactions involving targets classified as very large (that is, targets having assets greater than $985 million), approximately 56 percent utilized an A/B Exchange Transaction after 2002. This difference in the incidence of A/B Exchange Transactions after the enactment of SOX within each size category confirms a possible interaction between the effect of transaction size and the marginal costs of SOX. That is, the incremental costs of SOX might affect differently the likelihood of using an A/B Exchange Transaction for targets of varying sizes.

To better untangle the relationship between transaction size and the effect of SOX on the incidence of A/B Exchange Transactions, I ran a logistic regression using the full sample of going-private transactions ($n = 468$). The dependent variable in the model was $AB\text{\_Exchange}$, which was set to 1 if the bidder executed the acquisition using an A/B Exchange Transaction; otherwise, it was set to 0. To measure the effect of SOX on the use of A/B Exchange Transactions, I included in the model an independent dummy variable called $POSTSOX$, which was coded as 1 if the transaction occurred during 2003–2006 and 0 if it occurred during 1998–2001. To control for the influence of transaction size on the decision of whether to use an A/B Exchange Transaction, I also included an independent variable reflecting the size of target—specifically, whether it was coded as small, medium, large, or very large using the classification criteria described previously. To control for the strong demand for high-yield notes during the period 2003–2006, an independent, continuous variable called $HIGH\_YIELD\_SPREAD$ was used. This variable was set at the spread for high-yield bonds as of the closing date for each going-private transaction and mean-centered.
for each observation. Finally, to control for unmeasured variation in the use of high-yield debt financing across industries, industry fixed effects were also included (as measured by Standard Industrial Classification (SIC) division codes).

For the primary regression, $AB_{\text{Exchange}}$ was regressed on each of the three independent variables, controlling for industry fixed effects. If the transaction size and the state of the high-yield debt market influence whether a bidder uses an A/B Exchange Transaction, the intuition is that controlling for these variables in the regression should reveal a clearer picture of how the costs of SOX have affected the decision to use high-yield debt financing. Specifically, if the conventional analysis of SOX and going-private transactions is correct, a negative relationship should exist in the regression between $POSTSOX$ and whether a transaction used an A/B Exchange Transaction.

To test the potential interaction between the size of the transaction and the costs of SOX, I also ran three additional specifications. In each, $POSTSOX$ was interacted with one of the target size categories (that is, medium, large, and very large) to determine what effect, if any, the costs of SOX have had on the decision to use an A/B Exchange Transaction for acquisitions within each size category. To the extent these categories represent qualitatively different types of transactions, these interactions allow an examination of how SOX has affected the use of A/B Exchange Transactions on an apples-to-apples basis. The results of all regressions are reported in Table 7.
### TABLE 7
**INCIDENCE OF A/B EXCHANGE TRANSACTIONS—MULTIVARIATE ANALYSIS**

This Table reports regression estimates on the association between a bidder's decision to use an A/B Exchange Transaction, whether the transaction occurred before or after SOX, the strength of the high-yield credit markets, and transaction size. Additionally, all regression models control for industry fixed effects. The dependent variable in all models is AB\_EXCHANGE, set to 1 if the acquisition used an A/B Exchange Transaction and 0 otherwise. Statistical significance is indicated by * at 90 percent confidence; ** at 95 percent confidence; and *** at 99 percent confidence. All models are run as probit regressions and include a constant term (not reported). Standard errors appear in parentheses.

<table>
<thead>
<tr>
<th>Model Number</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>POSTSOX</td>
<td>-0.22 (0.18)</td>
<td>-0.09 (0.27)</td>
<td>-0.19 (0.19)</td>
<td>-0.36 (0.19)*</td>
</tr>
<tr>
<td>Controls:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Target Size:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medium</td>
<td>1.31 (0.27)***</td>
<td>1.38 (0.29)***</td>
<td>1.30 (0.27)***</td>
<td>1.32 (0.27)***</td>
</tr>
<tr>
<td>Large</td>
<td>1.96 (0.31)***</td>
<td>1.94 (0.31)***</td>
<td>2.02 (0.36)***</td>
<td>1.98 (0.31)***</td>
</tr>
<tr>
<td>Very Large</td>
<td>2.08 (0.32)***</td>
<td>2.03 (0.33)***</td>
<td>2.07 (0.32)***</td>
<td>1.18 (0.52)***</td>
</tr>
<tr>
<td>High-yield Spread</td>
<td>-0.47 (0.19)**</td>
<td>-0.46 (0.19)**</td>
<td>-0.47 (0.19)**</td>
<td>-0.43 (0.19)**</td>
</tr>
<tr>
<td>Industry Fixed Effects</td>
<td>Included</td>
<td>Included</td>
<td>Included</td>
<td>Included</td>
</tr>
<tr>
<td>Interaction:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medium*POSTSOX</td>
<td>-0.22 (0.34)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Large*POSTSOX</td>
<td>-0.14 (0.42)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very Large*POSTSOX</td>
<td>1.23 (0.53)**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Observations</td>
<td>468</td>
<td>468</td>
<td>468</td>
<td>468</td>
</tr>
<tr>
<td>McFadden's Pseudo R-squared</td>
<td>0.2256</td>
<td>0.2266</td>
<td>0.2259</td>
<td>0.2391</td>
</tr>
</tbody>
</table>

Table 7 sheds considerable light on the relationship among transaction size, SOX, and the decision to use an A/B Exchange Transaction. In the first model, the coefficients for each target size category are all positive and highly significant as well as increasing in magnitude with each size category, as expected. Because all models were run as a probit, the coefficients reflect the effect on a cumulative normal distribution function of the probability (measured in probit units) that a going-private transaction would use an A/B Exchange Transaction. The strength of the relationship between transaction size and the use of an A/B Exchange Transaction can also be expressed in terms of the probability that a transaction would use an A/B Exchange Transaction, which pro-
Going Private but Staying Public provides a more intuitive understanding of the relationship. Specifically, regardless of whether a transaction occurred prior to or after SOX, the probability that a small target in a going-private transaction would use an A/B Exchange Transaction ranged from only 3 to 5 percent, holding constant the high-yield credit spread at its mean. In contrast, these probabilities increased to between 30 and 38 percent for transactions involving medium targets and to between 55 and 64 percent for transactions involving large targets. For targets classified as very large, the probabilities that a going-private transaction would use an A/B Exchange Transaction were between 60 and 68 percent. Similarly strong and significant coefficients for each size category are found in the three other models.

Likewise, all four models reveal a significant, negative relationship between the use of an A/B Exchange Transaction and the high-yield credit spread at the time of a transaction. Again, given that yield spreads move in the opposite direction as bond prices, this finding suggests a strong, positive relationship between demand for high-yield notes at the time of a going-private transaction and the use of an A/B Exchange Transaction.

In contrast, the relationship between SOX and the decision to use an A/B Exchange Transaction is less pronounced. In the first three models, the coefficients for POSTSOX are each negative (as predicted by the hypothesis) but not significant under conventional standards. Moreover, the coefficients in all three models are modest in size. For instance, in the primary model, the reported coefficient of -0.22 indicates that the probability of using an A/B Exchange Transaction in

\[ P(AB\ Exchange = 1) = \Phi(y) = \frac{1}{\sqrt{2\pi}} \int_{-\infty}^{\frac{y}{\pi}} e^{\left(-\frac{x^2}{2}\right)} \, dx \]

The marginal effect of transaction size on the use of an A/B Exchange Transaction is reflected as a range of values due to the underlying mathematics of converting a probit unit into a measure of probability. As the first model in Table 5 indicates, an increase in transaction size has a purely linear increase in probit units; however, using \( \Phi(y) \) to transform the probit scale into a measure of probability creates a nonlinear relationship between the predicted probit and the probability of using an A/B Exchange Transaction. Moreover, because the size of the predicted probit will turn on both transaction size and the measure of the other independent variables in the model, the marginal effect of transaction size will be conditional on the value of the other independent variables. See William H. Greene, *Econometric Analysis* § 19.3.1 (Prentice Hall 3d ed 1997). In light of this issue, it is common to compute the marginal effect of a single discrete variable in a probit model by holding all other variables constant at their means. In the present case, however, such an approach is unhelpful where so many variables represent discrete categories and would therefore provide the marginal effect of transaction size for a transaction that never existed (that is, no transaction took place with an average of POSTSOX or an average of the medium size category). Accordingly, I present the marginal effect of transaction size as a range of values based on the actual transactions in the sample, holding constant at its mean only the high-yield spread.
2003–2006 was only one-fifth to one-eighth less than the probability of using an A/B Exchange Transaction in 1998–2001 for targets classified as medium, large, and very large after controlling for the demand for high-yield debt. Similarly weak and insignificant coefficients appear for both POSTSOX and the interaction of POSTSOX in Models 2 and 3, where POSTSOX was interacted with the target size categories medium and large. These results suggest that even after controlling for transaction size, there is no reason to believe that just because a particular transaction occurred after SOX was enacted, there was any greater or less probability that it would use an A/B Exchange Transaction.

In light of these findings, Model 4 presents something of a surprise. As in all cases, the coefficients for each target-size category are strongly significant and positive. The interaction of POSTSOX and the very large size category, however, indicates that for acquisitions involving targets with more than $985 million in total assets, the probability of conducting an A/B Exchange Transaction was actually higher after the enactment of SOX. Specifically, for very large targets, the probability of using an A/B Exchange Transaction after 2002 was over twice the probability of using an A/B Exchange Transaction prior to 2002 after controlling for the condition of the high-yield debt market.

Moreover, controlling for this interaction alters the effect of POSTSOX. In Model 4, the negative coefficient for POSTSOX is not only larger than in the primary model, it is also marginally significant (p = 0.06). In terms of the probability of using an A/B Exchange Transaction, the reported coefficient of -0.36 on POSTSOX in Model 4 indicates that the probability of using an A/B Exchange Transaction after 2002 was approximately 3 percent lower for targets classified as small, 13 percent lower for targets classified as medium, and 14 percent lower for targets classified as large. In short, it is only by controlling for the greater likelihood of using an A/B Exchange Transaction associated with very large buyouts after SOX that it becomes possible to detect any meaningful decrease in the likelihood that a going-private transaction would be financed with an A/B Exchange Transaction after SOX.

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66 I further analyzed the interactions in Models 2 and 3 using the Stata command INTEFF recommended in Edward C. Norton, Hua Wang, and Chunrong Ai, Computing Interaction Effects and Standard Errors in Logit and Probit Models, 4 Stata J 154 (2004) (describing how to use the INTEFF command to determine the interaction effect between variables in a probit specification when some of the variables are noncontinuous dummy variables). The INTEFF analysis confirmed the absence of a significant interaction between POSTSOX and the medium and large size categories for all observations in the data set.

67 As with the interactions in Models 2 and 3, I used the INTEFF command to confirm that the interaction in Model 4 was both significant and positive for all observations in the dataset.

68 In an unreported regression, I ran the same probit specification used in Model 4 but replaced the target size categories with the mean-centered log of target assets and interacted this
CONCLUSION

As the foregoing analysis illustrates, understanding the relationship between the costs of SOX and the sharp rise in going-private transactions after 2002 requires considerably more refinement than has traditionally been afforded the subject. Given that a company can remain subject to SOX after it goes private due to the use of high-yield debt to finance the transaction, accurate analysis of this relationship requires assessing whether companies have increasingly gone private with SOX-free forms of financing rather than simply the relative frequency with which companies have gone private at all.

Using this more refined approach, this Article has revealed that the large-scale take-private transactions that are so often cited as proof that SOX is driving companies to go private have generally failed to remove firms from the domain of SOX. Indeed, I find that after SOX, private bidders are actually more likely to subject themselves to continuing SEC reporting obligations (which now include SOX's disclosure obligations) when structuring a large-scale take-private transaction than prior to SOX. Rather, it is only for small- and medium-sized public companies in which SOX appears to have encouraged firms considering a going-private transaction to turn increasingly to SOX-free forms of financing.

At their most general level, these empirical findings therefore provide considerable evidence that the wave of large-scale buyouts that swept the US economy during 2003-2007 was not driven by the costs of SOX. At the same time, however, they also seem to confirm the widespread concern that SOX has been particularly burdensome on small- and medium-sized public companies. Yet in extending this latter finding to the broader debate about the relationship between SOX and the competitiveness of US capital markets, it is also important to emphasize the need for caution. Notwithstanding the attention given to the increased rate of take-private transactions since SOX, there is nothing inherently problematic with capital market regulations that deter some firms from issuing securities (equity or debt) that are intended to be publicly traded. As noted by Ehud Kamar, Pinar Karaca-Mandic, and Eric Talley, the very objective of securities regulations—SOX included—might be to minimize the public trading of securities of those firms that are prone to financial fraud. Focusing exclusively on how

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term with POSTSOX. Analysis of the model using the INTEFF command confirmed that the marginal effect of this interaction was positive and significant for most of the observations that fell within the very large size category.

69 See Kamar, Karaca-Mandic, and Talley, Going-private Decisions at 27 (cited in note 9) (noting that the "exodus of small firms from the public capital market" due to SOX costs would be a desired effect of SOX if these firms were more prone to financial fraud).
SOX has encouraged some types of companies to go private thus risks emphasizing how these firms perceive its compliance costs while overlooking how investors (and even other firms) might view its benefits in terms of fraud detection and prevention.

In this regard, the findings presented here suggest an intriguing possibility about the perceived benefits of SOX. For all the criticism that has been leveled at SOX for mandating a rigid, one-size-fits-all approach to fraud detection, it bears emphasizing that the high-yield debt market is fundamentally the product of private contractual relationships. Indeed, the promulgation of Rule 144A was intended to open the way for issuers and institutional investors to establish an active market for high-yield debt that would be immune from the mandatory reporting obligations associated with publicly traded equity securities. That the market responded with privately negotiated indentures obligating issuers to comply with these reporting obligations is therefore telling evidence of the value institutional investors place on a firm’s commitment to comply with the Exchange Act’s disclosure requirements. For similar reasons, the persistence of this covenant after 2002 may very well reflect institutional investors’ desire to opt into the SOX regulatory regime and thereby benefit from its additional compliance obligations.