Why do foreign firms leave U.S. equity markets?

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Abstract

This paper investigates Securities and Exchange Commission (SEC) deregistrations by foreign firms from the time the Sarbanes-Oxley Act (SOX) was passed in 2002 through 2008. We test two theories, the bonding theory and the loss of competitiveness theory, to understand why foreign firms leave U.S. equity markets and how deregistration affects their shareholders. Firms that deregister grow more slowly, need less capital, and experience poor stock return performance prior to deregistration compared to other foreign firms listed in the U.S. that do not deregister. Until the SEC adopted Exchange Act Rule 12h-6 in 2007 the deregistration process was extremely difficult for foreign firms. Easing these procedures led to a spike in deregistration activity in the second-half of 2007 that did not extend into 2008. We find that deregistrations are generally associated with adverse stock-price reactions, but these reactions are much weaker in 2007 than in other years. It is unclear whether SOX affected foreign-listed firms and deregistering firms adversely in general, but there is evidence that the smaller firms that deregistered after the adoption of Rule 12h-6 reacted more negatively to announcements that foreign firms would not be exempt from SOX. Overall, the evidence supports the bonding theory rather than the loss of competitiveness theory: foreign firms list shares in the U.S. in order to raise capital at the lowest possible cost to finance growth opportunities and, when those opportunities disappear, a listing becomes less valuable to corporate insiders and they go home if they can. But when they do so, minority shareholders typically lose.

Keywords: Corporate governance, SOX, deregistration, Exchange Act Rule, bonding theory, loss of competitiveness theory

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1. Introduction

A large literature examines why foreign firms choose to list their shares on a U.S. stock exchange.[1] Recently, there has been an increase in the number of foreign firms leaving U.S. markets, which has led to concern that U.S. stock exchanges have become less attractive to foreign firms, perhaps because of the passage of the Sarbanes-Oxley Act (SOX) in 2002. For foreign firms to escape all the obligations they accept by listing on a U.S. stock exchange, they must delist from that exchange and terminate registration and reporting requirements with the Securities and Exchange Commission (SEC). Without deregistering, a foreign firm is still subject to U.S. securities laws and, until recently, deregistration was very difficult. On March 21, 2007, the SEC adopted a new rule (referred to as Exchange Act Rule 12h-6) that makes it much easier for foreign firms to deregister. Following this policy change, more exchange-listed firms deregistered in 2007 and 2008 than from 2002 through to the adoption of the new rule. In this paper, we investigate why firms deregister, how the change in rules affected firms' deregistration decisions, and what the consequences are for shareholders when firms deregister. Our sample allows us to analyze deregistrations that take place in the years immediately after the adoption of SOX at a time when the process was difficult as well as those that take place more recently when firms could much more easily leave U.S. markets.

Much empirical evidence affirms that, through cross-listing on a U.S. stock exchange, a foreign firm subjects itself to U.S. laws and institutions, and that doing so has benefits. For simplicity, we call this the "bonding theory" of cross-listings since, by subjecting themselves to U.S. laws and institutions, the controlling shareholders of foreign firms credibly bond themselves to avoid some types of actions that might decrease the wealth of minority shareholders.[2] However, recently, there has been a lot of concern that the passage of SOX, as well as other regulatory developments in the U.S., has made it more costly for foreign firms to have a U.S. listing. We call this view the "loss of competitiveness theory," since it is

[1] See Karolyi (2006) for a review of this literature.

[2] Coffee (1999, 2002) and Stulz (1999) are the first to postulate this argument that a U.S. listing enhances the protection of the firm's investors and, consequently, reduces the agency costs of controlling shareholders. See, among others, Reese and Weisbach (2002), Doidge (2004), Doidge, Karolyi, and Stulz (2004), Hail and Leuz (2009), and Lel and Miller (2008) for related evidence.

based on the notion that U.S. capital markets have fallen behind other markets in attracting foreign cross-listings.[3] Each of these views has direct, testable implications for which types of foreign firms deregister from U.S. markets and for the shareholder wealth consequences of such decisions.

With the bonding theory, a U.S. cross-listing has a cost for corporate insiders, which is that they face restrictions in consuming private benefits, and a benefit, which is that they can finance growth opportunities on better terms. The benefit from cross-listing depends critically on how much corporate insiders gain from having their firm access capital markets on better terms. Empirical evidence shows that cross-listing firms have better growth opportunities and that their shareholders benefit when they cross-list (Reese and Weisbach, 2002; Doidge, Karolyi, and Stulz, 2004, 2009; and Hail and Leuz, 2009). Insiders at a firm with no foreseeable need for external capital gain no benefit from having their firm cross-listed in the U.S. unless they intend to sell their stake. By terminating registration in the U.S., insiders at a firm with enough cash flow to finance its growth opportunities can extract more private benefits from their firm. Therefore, we expect firms to terminate registration in the U.S. when doing so is feasible and when it benefits their insiders. New laws and regulations that make it harder for insiders to extract private benefits, such as the passage of SOX, would make it more likely that insiders choose deregistration. This is not because the U.S. has become less competitive, but rather, because being listed in the U.S. becomes less attractive for insiders even though it might have become more advantageous for minority shareholders. Bonding is valuable for firms with good growth opportunities, so one reason that insiders would choose to deregister the firm they control is if it no longer has valuable growth opportunities. In the remainder of the paper, we call this specific hypothesis the bonding theory of deregistrations. With this theory, firms with poor growth opportunities in relation to their cash flows are more likely to deregister. Shareholders of firms that deregister are expected to be hurt by deregistration,

[3] Zingales (2007) puts forward this alternative hypothesis. Additional arguments in support of this view can be found in reports of the Committee for Capital Market Reform (2006, 2007), a report of the U.S. Chamber of Commerce (2008), and a report by McKinsey & Company (2007) commissioned by U.S. Senator Charles Schumer and New York Mayor Michael Bloomberg.

since it increases the corporate insiders' discretion to extract private benefits at the expense of the public shareholders.

Bonding could become less valuable because of increased deadweight costs associated with a U.S. exchange listing and these greater deadweight costs could lead to deregistration for firms that derive a low benefit from bonding. The loss of competitiveness theory does not require that firms choose to cross-list because of a bonding benefit. All that is required for that theory to be valid is the existence of a benefit for all shareholders from cross-listing that subsequently erodes for some firms because of increased deadweight costs associated with the burdens of U.S. laws and regulations. For such firms, cross-listing becomes a net cost rather than a net benefit. However, it is important to emphasize that with the loss of competitiveness theory, all shareholders lose as a result of the loss of competitiveness and they all benefit from deregistration. We explicitly test the loss of competitiveness hypothesis in the context of the passage of SOX, but some of our results apply to more general causes of a loss of competitiveness.

The SOX-related competitiveness explanation predicts that there are cross-listed firms for which SOX imposed deadweight costs big enough to make it worthwhile for them to deregister. With the loss of competitiveness theory, whether or not a firm deregisters depends on the size of the adverse impact of SOX in relation to the benefits of listing. Although we cannot observe directly the benefits of listing, we can investigate whether the necessary condition for the explanation based on SOX-related deadweight costs holds; namely, that foreign firms, in general, and deregistering firms, in particular, were adversely affected by SOX. We can also investigate whether the changes in regulations that made deregistration easier were beneficial for these firms. Presumably the market could assess whether a U.S. listing was valuable for a firm in the post-SOX environment. If a listing was no longer valuable for a firm, that firm would want to deregister and therefore would benefit from the passage of Rule 12h-6, which made deregistration easier. If there was any residual uncertainty about the benefits of deregistration for a firm, it would be resolved when that firm announced its intent to deregister. With the loss of competitiveness theory, the market should interpret such an announcement favorably.

We examine 144 firms that deregistered from a major U.S. exchange between 2002 and 2008. Of these firms, 73 deregister after the adoption of Rule 12h-6 in 2007 and 2008. Throughout the period, firms that deregister have lower growth opportunities, as measured by sales growth and Tobin's *q*, than firms that do not deregister. We also compute a proxy for the financing deficit (see Frank and Goyal, 2003) for the cross-listed firms that deregister as well as for those that do not. Strikingly, firms that deregister have a financing surplus, so that they are returning funds to capital providers, in contrast to the firms that do not deregister. In general, firms that deregister come from wealthier countries but are less likely to be from a common law country. Before the adoption of the rule, firms that deregistered were much smaller than those that did not; the median total assets of deregistering firms was 25% of that of the median firm that did not deregister. Since the adoption of Rule 12h-6, the size of deregistering firms is comparable to that of the firms that do not deregister. Such a result is not surprising because firms that deregistered before the rule had to have less than 300 registered U.S. shareholders, a criterion that favored small firms and firms with concentrated ownership, a key finding of the study by Marosi and Massoud's (2008) on foreign firm deregistration activity before and after the passage of SOX. An important contribution of our study is that we can evaluate directly whether Rule 12h-6 made a difference in a firm's decision to deregister. Indeed, we find that it did, at least on a transitory basis. We uncover a spike in deregistrations in 2007, but find that the number of deregistrations in 2008 is not unusual for our sample period. We also find evidence that firms that deregister experience poor stock return performance over a number of years before deregistration. Compared to other foreign firms listed on U.S. exchanges, the deregistering firms also have a significantly lower "cross-listing premium," an excess valuation measured in terms of Tobin's *q* ratios relative to peer firms in the deregistering firms' country of domicile.

We next examine stock-price reactions of deregistering firms around major events surrounding the passage of SOX. Using a common dummy variable for all SOX events, we find no clear evidence that the deregistering firms were affected adversely by SOX compared to other foreign firms listed on U.S. exchanges or even that foreign firms were affected at all. However, with some regressions, we find that

the firms that deregistered after Rule 12h-6 were adversely affected by announcements that foreign firms would not be exempt from SOX. All of the SOX evidence is sensitive to the benchmark used. In particular, when we find evidence of adverse effects of SOX, it tends to be for an equally-weighted benchmark and not for a value-weighted benchmark, suggesting that the impact of SOX was larger for smaller foreign firms.

If being listed in the U.S. had deadweight costs for deregistering firms, we would expect a positive stock-price reaction for these firms to the announcement of the adoption of Rule 12h-6, since it means that these firms would be better able to avoid that deadweight cost. Fernandes, Lel, and Miller (2009) examine the stock-price reactions of all foreign-listed firms to the final announcement of the adoption of Rule 12h-6. They detect no stock-price reaction, on average, but do show that firms that come from countries with weaker governance and disclosure were adversely affected by the adoption of Rule 12h-6, a finding that they interpret to be supportive of the bonding theory. Like them, we examine the stock-price reaction of firms to the announcement of the adoption of Rule 12h-6. However, our focus is different from theirs. They investigate whether the cross-sectional variation in the stock-price reactions of exchange-listed firms to the announcement is supportive of the bonding hypothesis. We investigate the difference in the stock-price reactions to the announcement between the exchange-listed firms that do not use Rule 12h-6 to deregister and those that do in order to assess whether the market viewed the adoption of the rule to be particularly valuable for the firms that made use of it during our sample period. We find no evidence that the firms that deregister using Rule 12h-6 reacted any differently to the announcement of the rule than firms that have not deregistered.

Finally, we examine the stock-price reactions to the deregistration announcements themselves. As in Marosi and Massoud (2008), who examine the stock-price reactions around deregistration announcements from 1990 to 2006, we find a significant negative stock-price reaction to deregistration announcements before the passage of Rule 12h-6. However, after the adoption of the rule, the average announcement abnormal return is not different from zero and, while negative on average and for the median firm, is significantly less so than the average announcement return before adoption of the rule. This evidence

suggests that the firms that initially took advantage of Rule 12h-6 were firms that did not benefit much from being in the U.S. perhaps because of poor growth opportunities, deadweight costs stemming from some SOX-related rules, and/or that the market largely anticipated the actions of these firms. However, we also find that firms with better growth opportunities and larger financing deficits have significantly worse deregistration-related stock-price reactions. We argue that the most plausible interpretation of this result is that firms more likely to benefit from bonding experience more adverse stock-price reactions to deregistration announcements, as we would expect with the bonding hypothesis of deregistrations. Conversely, because we always reject the hypothesis that the abnormal returns around firms' deregistration announcements are positive, the evidence is inconsistent the loss of competitiveness hypothesis.

The remainder of this paper is organized as follows. In the next section, we describe the past and new rules governing deregistration for foreign firms listed for trading on major U.S. exchanges. We also survey existing empirical research on the economic consequences of deregistration and delisting decisions under the old rules. Section 3 introduces our sample and compares characteristics of deregistering firms with those of foreign listed firms that have not deregistered. The event-study analysis of the stock-price reactions of the deregistering firms to the passage of SOX, to the announcement of the new Rule 12h-6, and around their respective decisions to deregister all follow in Section 4. We then offer concluding remarks.

2. The Past and Present Deregistration Process for Foreign Private Issuers in the U.S.

On March 21, 2007, the SEC unanimously adopted Exchange Act Rule 12h-6 which substantially eased conditions under which foreign private issuers (FPIs) can terminate the registration of a class of securities under Section 12(g) of the Exchange Act and its resulting Section 13(a) reporting obligations, or terminate and not merely suspend Section 15(d) reporting obligations. The new rule took effect on June 4, 2007. In this section, we describe (a) the pre-existing rule and empirical evidence on deregistrations by

FPIs under that rule, and (b) the key elements of the new rule and some background on why it was adopted.

a. The Old Rule and Some Evidence

Under the pre-existing Exchange Act Rule 12g-4, the primary determinant regarding whether a FPI can terminate its registration of a class of equity securities under Section 12(g) of the Exchange Act is if the securities are held by less than 300 residents in the U.S. (or alternatively, less than 500 residents if assets are less than $10 million). If a firm successfully terminates its Section 12(g) registration, it must then consider whether it has reporting obligations under Section 15(d) of the Exchange Act. Section 15(d) provides that the periodic reporting requirements of Section 13(a) are applicable to any FPI that files a registration statement under the Securities Act. The criteria to suspend Section 15(d) reporting obligations under Exchange Act Rule 12h-3 are similar to those under Rule 12g-4. The key distinction is that the reporting obligations are suspended, rather than terminated. If the number of U.S. holders exceeds 300 (or 500, if assets are less than $10 million) at the end of a fiscal year, the FPI must resume its reporting obligations.[4] These conditions are certified by voluntarily filing with the SEC Form 15, a one-page form that includes information such as the class of securities being deregistered, the class of securities that still may require a duty to file, the filer's address, and the number of shareholders of record in the U.S. For many FPIs, it was difficult, and often, impossible to deregister, even when U.S. holdings were small and when trading in the U.S. was low (Greene and Underhill, 2008).

Each U.S. exchange sets its own delisting standards and these are considerably less burdensome than those that govern deregistration from SEC reporting obligations. Macey, O'Hara, and Pompilio (2004)

[4] What constitutes a FPI is governed by Exchange Act Rule 3b-4 and the relevant statutory section applies only to equity securities as noted. For the purpose of determining the number of U.S. resident shareholders, a FPI must use the method of counting provided under Rule 12g3-2(a). This method requires looking through the record ownership of brokers, dealers, banks, or other nominees on a worldwide basis and counting the number of separate accounts of customers resident in the U.S. for which the securities are held. Under this rule, issuers are required to make inquiries of all nominees, wherever located and wherever in the chain of ownership, for the purpose of assessing the number of U.S. resident holders. See SEC Release Number 34-55540 of the Federal Register (Volume 72, Number 65, p. 16934, April 5, 2007).

classify delisting standards into two broad categories: profit-related and reputation-related standards. The profit standards are put in place to eliminate those firms that are unprofitable to the exchange and they stipulate minimum criteria based on market capitalization, price per share, number of publicly-held shares, number of registered shareholders, and trading volume.[5] The reputation-related standards are set to maintain the exchange's reputation as a self-regulatory organization (Chemmanur and Fulghieri, 2003) and allow the exchange to delist firms that go bankrupt, are to be liquidated, or fail to meet the exchange's corporate governance standards. Macey, O'Hara, and Pompilio discuss how foreign firms may be exempted from some of these reputation-related standards.

Many FPIs trade in the U.S. on major stock exchanges in the form of an American Depositary Receipt (ADR). The procedure for termination of an ADR program is set forth in the deposit agreement between the depositary bank and the firm. It usually requires a 30-day notice period prior to termination and the depositary bank will continue to issue ADRs up until the termination date and keep open the ADR facility for a period afterwards (up to one year) for ADR holders to be able to cancel. Cash distributions are initiated by the depositary bank for any ADR holders who have not cancelled by that point in time. This ADR termination process is again much less onerous than the process associated with deregistration from reporting obligations to the SEC.

There are several empirical studies of the determinants and economic consequences of foreign delistings from U.S. stock exchanges, fewer on those of foreign delistings from other markets and, to the best of our knowledge, only three on foreign deregistrations from U.S. markets. Liu (2004) looks at the stock-price reactions of 103 foreign firms involuntarily delisting from U.S. markets over the period 1990-2003, while Liu and Stowe (2005) examine the effects of 54 U.S. firms voluntarily delisting from Japan (1982-2002). The former study shows a 4.49% decline on average, while the latter shows no reaction whatsoever. Witmer (2006) confirms a 6% decline for a larger sample of 116 foreign delistings from U.S.

[5] See NYSE Listing Standards (www.nyse.com/regulation/listed/1147474807344.html) and *Listing Standards and Fees*, Nasdaq Stock Market, May 2008 (www.nasdaq.com).

exchanges between 1990 and 2003, but he also shows that firms that voluntary delist and firms with smaller turnover in U.S. markets experience smaller negative reactions.

Li (2007) and Smith (2008) focus their studies on the impact of the passage of SOX on the economic consequences of foreign delistings in U.S. markets. Specifically, Li uncovers an insignificant negative pre-SOX stock-price reaction around delistings (-1.58% for 15 events with three-day event windows) while Smith finds an insignificant, but positive reaction (7.75% for 39 events); both studies find positive post-SOX reactions (an insignificant 2.39% for 40 delistings for Li; 7.52% for 33 events in Smith). Hostak, Karaoglu, Lys, and Yang (2007) consider a post-SOX sample of 75 voluntary foreign delistings but, unlike the Li and Smith studies, they uncover a statistically-significant -1.10% three-day cumulative abnormal return. Part of the reason for the differences in these results may stem in part from how researchers identify voluntary delistings in the first place and also in part from the special characteristics of the firms that make that choice. Chaplinsky and Ramchand (2008) identify only 48 "true" voluntary delistings from a total sample of 760 foreign firms delisting over the period from 1961 to 2004 and show that the firms delisting following SOX have lower profitability, lower median assets and market capitalization, poorer preceding stock-price performance, and lower analyst coverage. Piotroski and Srinivasan (2008), like Chaplinsky and Ramchand, conclude that important non-SOX related factors influence delisting decisions.

Only three studies examine the determinants of and the consequences of the decision by foreign firms to deregister from U.S. markets.[6] These studies are related to the delisting studies described above. Delisting from a U.S. exchange eliminates the obligation to meet the exchange's listing requirements, but does not eliminate SEC registration requirements. Firms might delist with the intent of ultimately deregistering, but delisting does not guarantee that firms will meet the criteria to deregister because they could still have more than 300 U.S. shareholders after delisting. At the same time, Hostak, Karaoglu, Lys, and Yang (2007) focus on voluntary delistings and argue that the assumption that delisting is ultimately

[6] Two studies examine the long-term impact of SOX in terms of deregistration decisions of U.S. issuers. Leuz, Triantis, and Wang (2008) and Marosi and Massoud (2007) find that more issuers deregister in the post-SOX period, but the significantly-negative announcement abnormal returns are similar in the pre- and post-SOX periods.

aimed at deregistration is reasonable. They conclude that firms with weaker corporate governance delisted to avoid the governance mandates of SOX rather than to avoid compliance costs associated with SOX.

Witmer (2006) uncovers a statistically insignificant negative stock-price reaction (-0.60%) in the three days around announcement of Form 15 filing dates. Almost all of his deregistration events take place after the passage of SOX. Li (2007) and Marosi and Massoud (2006) specifically examine the changes in the count of deregistration events and resulting stock-price reactions before and after SOX. Li finds an insignificant negative reaction around pre-SOX deregistrations (-0.62%) and an insignificant positive reaction after SOX (+2.30%). Marosi and Massoud, however, do not find such an evolution: the stock-price reactions are negative both before and after SOX.[7] One possible reason for the conflicting findings in these studies is that they classify "voluntary" deregistrations differently and therefore identify different samples of deregistering firms. To make it easier for researchers to understand better the determinants of deregistration and to clarify the choices we made in constructing our sample, we furnish appendices that provide a list of all firms included in our sample as well as the delisting firms that we did not include with appropriate reasons given.

b. The New Rule 12h-6

New Exchange Act Rule 12h-6 proposes market-based tests such that firms can qualify for deregistration using a benchmark of less than 5% of average worldwide trading volume taking place on U.S. markets (measured over the preceding year). The average daily trading volume (ADTV) must be no greater than 5% of the worldwide ADTV for that security (with clear definitions of which securities qualify for calculation during the preceding 12-month period in order to qualify for a Form 15F filing used to notify the SEC of the decision to terminate registration). Either the standard is met at the time of delisting from the U.S. exchange or there is a one-year ineligibility period for the ADTV calculation after an exchange delisting. There are also three additional conditions: (a) FPIs must have been a reporting

[7] We refer here to the working paper version of the paper because the published version (Marosi and Massoud, 2008) does not contain as much information for the comparison of the pre-SOX and post-SOX periods.

company for at least one year, (b) they must not have sold securities in a registered offering for at least one year, and (c) they must maintain a listing in a foreign jurisdiction (their primary trading market) for at least one year (see Federal Register, Volume 72(65), 16941-16944). Under the new rules, any FPI can deregister its equity securities, although some would have to delist their securities and wait for 12 months to meet the trading volume requirement before deregistering (Greene and Underhill, 2008).[8]

The rule was originally proposed on December 23, 2005 (Release No. 34-53020) and, following a comment period, was re-proposed on December 22, 2006 (Release No. 34-55540). Why did the SEC change the rule? The original proposal release states:

> *"The Commission proposed to amend these rules out of concern that, due to the increased globalization of securities markets in recent decades as well as other trends, it has become difficult for a foreign private issuer to exit the Exchange Act reporting system even when there is relatively little U.S. investor interest in its U.S.-registered securities. However, because of the* ***burdens and uncertainties*** *associated with terminating registration and reporting under the Exchange Act, the current exit process may serve as a disincentive to foreign private issuers accessing the U.S. public capital markets."* (Federal Register 70, 77689-77690)

There was, in fact, much controversy over the effects of SEC registration and enforcement on foreign companies cross-listed on major U.S. stock exchanges leading up to the original rule proposal. The fact that over 30 comment letters were submitted from 40 different businesses, financial and legal associations, foreign companies and government agencies, and advisory, accounting, and law firms bears this out. The burdens and uncertainties regarding terminating registration likely became an incremental concern in the after-math of the passage of SOX in 2002. Two letters from the European Association of Listed Companies (EALIC) that discussed these concerns were submitted to the SEC well before the original rule was proposed (February 9, 2004 and March 18, 2005).[9] A further 91 comments were

[8] It is not known how many FPIs were eligible to deregister under old rules, but it was less than 26%. The original rule proposal in December 2005 relaxed the deregistration criteria, but not to the extent that was eventually adopted with Rule 12h-6. With the rules in the original proposal, the SEC estimated that about 26% of FPIs would be eligible to deregister (Greene and Underhill, 2008).

[9] We did not find any evidence that the individual deregistering firms lobbied for a change in the rules before the SEC announcements of the rule change, although the letters from the EALIC may have represented a number of the Western European based firms. We did find that 11 of the deregistering firms in our sample commented on, expressed support for, or inquired about the proposed rule change.

submitted between January 18, 2006 and February 23, 2007 by various law and accounting firms, consultancy firms, representatives of stock exchanges, academics as well as affected foreign firms.[10]

Fernandes, Lel, and Miller (2009) examine the market impact of the final adoption of Rule 12h-6 on foreign firms. They show that the average abnormal return over the three days surrounding the rule change of exchange-listed foreign firms is -0.138% and is statistically insignificantly different from zero, but the median abnormal return of -0.294% is significant. For over-the-counter traded Level 1 ADRs, the median abnormal return is -0.534%, but is not statistically significant. The negative reactions are concentrated in firms from countries with weaker home-country disclosure requirements. They interpret their results to be supportive of the bonding theory since the rule change makes it easier for foreign firms to break their commitment to U.S. rules and regulations and hence reduces the value of that commitment. Their study does not address the questions we focus on in this study which is to understand why firms deregister and what the consequences are of deregistration for a firm's shareholders.

3. Which Firms Deregister?

In this section, we first describe our sample of foreign firms that deregistered from U.S. markets and then compare the characteristics of these firms with those of firms cross-listed on U.S. exchanges that did not deregister. We first evaluate financial and operating characteristics. Next, we compare the risk-adjusted returns performance of a portfolio of the foreign firms that deregistered with those of a benchmark portfolio of firms cross-listed on U.S. exchanges that did not deregister over the period from 2001 to 2008. Finally, we provide some evidence on the post-deregistration experience of deregistering firms.

[10] A summary of the principal comments regarding the original rule and the re-proposed rule amendments is found in Section I.B and I.C of the Release Number 34-55540 of the Federal Register (Volume 72, Number 65, pp. 16935-36, April 5, 2007).

a. The Sample of Deregistering Firms

In this paper, we want to understand why foreign firms leave major U.S. exchanges and what the consequences are for their shareholders. Therefore, we consider only firms that, prior to deregistration, had their common stock listed on a U.S. exchange (directly or more generally in the form of an ADR). Our sample of deregistrations does not include firms that deregister bonds previously trading in the U.S. By restricting our sample of deregistrations to firms listed on a major U.S. exchange, we make sure that SOX applies to the firms included in our sample. Further, it is important for our study that a firm delists and deregisters voluntarily. In other words, it makes the choice of delisting as a step toward deregistration. This restriction excludes, for instance, firms that delist because they are acquired or because they no longer meet the listing criteria of the exchange on which they are listed. Neither motivations for deregistration discussed in the introduction would apply to the firms that we exclude.

Identifying which delistings and deregistrations prior to Rule 12h-6 are voluntary is challenging, as evidenced by the disparity in sample sizes in prior studies.[11] To construct the sample of firms that deregister before Rule 12h-6, we start from the list of firms cross-listed on a U.S. exchange that voluntarily delist between January 2002 and March 2007 (we exclude firms that delisted and deregistered prior to SOX).[12] In total we identify 88 voluntary delistings over this period. Delistings are identified from information provided by the Bank of New York, Citibank, and the Center for Research on Security Prices (CRSP). We then search for press releases in Lexis-Nexis and Factiva to determine the reason for delisting. In identifying firms that voluntarily delist, we take them at their word and record a delisting as

[11] Marosi and Massoud (2008) identify 126 deregistrations between 2002 and 2006 (including 97 between 2002 and 2005). Li (2007) includes only 55 deregistrations from 2002 – 2005, after excluding firms that also delist in the home country, become private, are acquired, have stock prices less than one unit of home currency, go bankrupt or are liquidated within a year of the deregistration date. Hostak, Karaoglu, Lys, and Yang (2007) study 75 voluntary delistings (excluding Canadian firms) from U.S. exchanges between 2002 and 2006. Although delisting does not necessarily imply deregistration, the number of voluntary delistings should represent an upper bound on the number of voluntary deregistrations.

[12] Although SOX was signed into law on July 30, 2002, we include 10 voluntary delistings (seven are included in the final sample) between April and June of 2002. On January 17, 2002, SEC Chairman Harvey Pitt proposed to create a public accounting oversight board. On February 14 the "Oxley" bill was introduced to the House Committee on Financial Services. The committee approved the bill on April 22 and the House passed it on April 24, 2002 (Litvak, 2007).

voluntary if a firm states that it is voluntary.[13] From the initial list of 88 voluntary delistings, we exclude 17 firms that could potentially be included in a study of voluntary deregistrations. We exclude four firms that delisted in 2001 or earlier, but deregistered after SOX (two of these firms actually deregistered in January 2002 while the other two deregistered in 2003 and 2005). For these firms, the process of leaving the U.S. began with the delisting that occurred prior to SOX. Five firms that delisted between 2003 and 2005, but then deregistered under Rule 12h-6 after March 2007 are also removed from the sample. We further exclude two firms that deregistered more than two years after delisting. In our empirical work, we require firms to have data in Datastream and Worldscope and we exclude one firm that is not in Worldscope. Finally, we exclude five firms that voluntarily delisted between 2002 and 2006 for which we could not verify deregistration via a Form 15 filing with the SEC. Our final sample has 71 firms that deregistered before the adoption of Rule 12h-6 over the period from 2002 through March 2007.

For the sample of firms that deregister under Rule 12h-6, we start with the list of 200 firms filing SEC Form 15F certification of FPI termination of registration between March 21, 2007 and December 30, 2008. These filings are available from the SEC website for that period. Not all of these firms qualify for our analysis for a variety of reasons. First, we exclude 35 "involuntary" deregistration events due to mergers, acquisitions, and successor registrations. In 25 of the cases, a registered firm was acquired and the registered firms' shares were deregistered after the acquisition. In the other 10 cases, an unregistered foreign company acquired a registered company and sought deregistration under the "expanded scope" condition of Rule 12h-6 related to successor issues (see Federal Register, Volume 72(65), p. 16945). We search for mergers, consolidations, exchanges of securities, acquisitions of assets or other control-related events to identify possible "involuntary" filings. Second, not all firms delisted voluntarily. Six firms were delisted by a U.S. exchange for violating listing standards. These firms moved to the OTC market and subsequently deregistered. Third, we exclude five firms that delisted prior to Rule 12h-6, but deregistered

[13] Classifying voluntary and involuntary delistings is often difficult. Some delisting firms are often close to financial distress so that what appears to be a firm's choice could, in fact, simply be a pre-emptive action for an inevitable involuntary delisting by the exchange. We identify 17 cases in which the delisting is announced as voluntary but coincides with financial difficulties, cost-cutting or restructuring programs, or regulatory issues such as SEC investigations. For robustness, we verify that our results hold if we exclude these firms from the sample.

after Rule 12h-6 (one firm delisted in 2003, three in 2004, and one more in 2005). These firms initiated the process of exiting U.S. markets under the old rules, but actually exited under the new Rule 12h-6. Fourth, the new rule permits FPIs to terminate reporting obligations associated with debt securities. We identify 27 debt deregistrations, all of which we exclude. Fifth, two firms are excluded because they are not in Worldscope or Datastream. Sixth, 29 firms deregistered equity securities, but the firms were never listed on a U.S. exchange.[14] Seventh, 16 firms that previously filed Form 15 under the previous Rules 12g-4 and 12h-3 are excluded. The new Rule 12h-6 establishes conditions under which a previous Form 15 filer, who could have applied for suspension of reporting obligations, can now terminate reporting obligations and would thus necessitate filing of Form 15F. Fifteen of these firms are included in the pre-Rule 12h-6 sample (one firm is excluded from that sample because it delisted more than two years before deregistration). Finally, seven other firms are excluded for various reasons. Our final sample includes 73 firms that deregistered under Rule 12h-6. Appendix A lists the firms in each sample, their deregistration form types, filing dates, announcement of filing dates, country of domicile, and home trading market. The firms excluded based on the screens above, including the reasons for their exclusion, are listed in Appendix B.

Prior to Rule 12h-6, most of the deregistering foreign firms in Appendix A are from Europe, including 15 (21% of the sample) from the U.K., 5 (7%) from Germany, and 5 (7%) from Sweden. From 2002 through 2006, U.K firms comprise, on average, 9% of all U.S. exchange-listed firms, while German and Swedish firms each comprise 3% or fewer of the total. The largest non-European contingent of deregistering firms is from Canada (8 firms, 11%). Canadian firms represent the largest contingent of foreign firms listed on U.S. exchanges from 2002 to 2006 (27% of the total). Except for eight firms from Mexico, few firms from emerging markets deregistered. Following Rule 12h-6, the majority of deregistering firms are also from Europe, including 13 from the U.K. (18%), 12 from France (16%), and

[14] In 1999, the National Association of Securities Dealers (NASD) announced that the SEC approved the NASD's proposed OTC Bulletin Board (OTCBB) Eligibility Rule that requires only companies that file periodic reports to the SEC to trade on the OTCBB. The SEC required all foreign securities on the OTCBB to be fully registered, but only after 1999 and following a phase-in period.

seven each from Germany and Netherlands (10%). Outside Europe, five firms from Australia and five firms from Canada deregistered (7% each).

Figure 1 shows the distribution of our sample of deregistering firms from 2002 through 2008. In each of the first four years of our sample, the number of deregistrations is less than 15. In 2006, the number of increases to 23, and there is a huge jump in 2007, when the count reaches 57 (2 under the old rules and 55 under new Rule 12h-6). In 2008, the number of deregistrations drops sharply to 18, a count that is similar to that prior to the rule change. The pattern of deregistration activity around the adoption of Rule 12h-6 suggests that firms that wanted to deregister could not do so because the procedure was too restrictive before the adoption of the rule, but that the number of such firms was limited. This view is reinforced by considering deregistration events by month in 2007. By historical standards, there is a flood of deregistrations in the first month (June 2007) that the rule becomes effective. In that month, 29 firms deregistered, or 52.72% of the firms that deregistered under the new rule in 2007. The drop in deregistrations in 2008 also suggests that the number of firms that wanted to leave was limited. If firms wanted to deregister in 2007, but could not meet the 5% trading volume requirement, they could delist in 2007, meet the trading volume requirement by 2008 and then deregister.

b. Comparisons of Firm Attributes

We obtain a variety of firm-level financial and operating variables on the deregistering firms and on all other firms cross-listed in the U.S. To identify the cross-listed firms, we use information from a variety of sources, including the ADR divisions of the Mellon Bank of New York, Citibank, J.P. Morgan, the New York Stock Exchange (NYSE), NASDAQ, OTCBB, end-of-year editions of the National Quotation Bureau's Pink Sheets, CRSP, firms' annual reports, SEC Form 20-F filings, and Lexis-Nexis and Factiva searches. Information from the various datasets is manually cross-checked and verified. The data provided by Citibank and CRSP allows us to keep track of both active and inactive issues for U.S. listings, which mitigates concerns about survivorship bias. We classify firms by listing type, including those on the major exchanges (via Level 2 non-capital-raising or Level 3 capital-raising ADR programs,

direct listings, or New York Registered Shares) as well as listings by means of a Rule 144a private placement, and over-the-counter (OTC) issues by means of the OTC Bulletin Board (OTCBB), or the Pink Sheets (usually via Level 1 ADRs).

We begin by comparing the deregistering firms to a benchmark sample of foreign firms with listings on the major U.S. exchanges that did not deregister. For our comparisons, we evaluate deregistering firms relative to benchmark firms in the year before deregistration. There are between 447 and 651 benchmark firms in a given year, depending on the availability of the firm attribute. Our data source for firm characteristics is Thomson Financial's Worldscope database. Worldscope covers companies in more than 50 developed and emerging markets, representing more than 96 percent of the market value of the world's publicly traded companies. We include firms with total assets of at least $10 million that are not domiciled in tax havens (e.g., Cayman Islands, British Virgin Islands), but we also assess the sensitivity of our analysis to employing higher thresholds of $100 million in total assets and to excluding financial firms.

The firm-level variables are defined as follows. Total assets are in U.S. dollars, converted from local currencies at fiscal year-end exchange rates and leverage is defined as total debt divided by total assets. Ownership measures the fraction of shares outstanding held by corporate insiders as computed by Worldscope.[15] It includes, but is not restricted to, shares held by officers, directors and their immediate families, those held in trust, those held by other corporations, those held by pension plans, and by individuals who hold 5% or more of the outstanding shares. We use three proxies for growth opportunities: sales growth, Tobin's q, and global industry q, which is the median Tobin's q ratio of the global industry group to which the firm belongs. Sales growth is measured as a two-year geometric average of annual inflation-adjusted growth in sales. We adjust sales growth for inflation using the change in the consumer price index for the country, as reported by the International Monetary Fund. Following the literature, we compute Tobin's q as follows. For the numerator, we take the book value of total assets,

[15] Dahlquist, Pinkowitz, Stulz, and Williamson (2003) discuss the strengths and weaknesses of Worldscope's ownership data.

subtract the book value of equity, and add the market value of equity. For the denominator, we use the book value of total assets. We follow Frank and Goyal (2003) and compute a firm's financing deficit as the sum of cash dividends, investments and net changes in working capital less internal cash flows, scaled by total assets.[16] We use return on assets (ROA) as a measure of accounting performance. Sales growth, Tobin's *q*, the financing deficit, and ROA are winsorized at the 1st and 99th percentiles to reduce the potential impact of outliers.

We also use as country variables legal origin (e.g., Common law) from La Porta, Lopez-de-Silanes, Shleifer, and Vishny (1998), a legal index that multiplies the anti-director rights variable from Djankov, La Porta, Lopez-de-Silanes, and Shleifer (2008) by the rule of law index from La Porta, Lopez-de-Silanes, Shleifer, and Vishny (1998),[17] stock market capitalization divided by GDP (Gross Domestic Product) and (log of) Gross National Product (GNP) per capita. The latter two variables are from the World Bank WDI database.

Table 1 compares characteristics of deregistering firms and foreign firms listed on U.S. exchanges. We provide tests of differences in means with two-sided *t*-statistics and of medians with Wilcoxon rank-sum tests. Whether deregistering before Rule 12h-6 or after, the deregistering firms have lower sales growth and a lower Tobin's *q*. Deregistering firms also have a financing surplus – a negative financing deficit – in contrast to benchmark firms. This means that deregistering firms are returning funds to investors rather than raising external capital. Firms that return funds to investors are generally firms with poor growth opportunities since they cannot justify raising external capital to finance growth opportunities. Further, deregistering firms are less likely to come from common law countries than

[16] We match the relevant Worldscope data items, subject to availability, for cash dividends (WS 04551), investments (including capital expenditures, WS 04601 plus additions to other assets, assets from acquisitions, changes in investments, other uses for investing, less disposals of fixed assets), net changes in working capital (increase in cash and short term investments, WS 04851, less funds from operating activities, WS 04831, less increase in short term borrowings, WS 04821), less internal cash flow (which includes net income, WS 04001, depreciation, deferred taxes, extraordinary items, other cash flows, effects of exchange rate on cash and other sources of financing). On average, we successfully match 60 percent of the sample of exchange-listed firm-year observations, including deregistering firms, from 2001 through 2007.

[17] We obtain values for the rule of law measure for China, Hungary, Poland, and Russia from Pistor, Raiser, and Gelfer (2000).

benchmark firms. Deregistering firms come, on average, from countries with higher GNP per capita than benchmark firms but lower stock market capitalization to GDP.

Firms that deregister under Rule 12h-6 differ in important ways from firms that deregistered before. Not surprisingly given the nature of the change in rules, firms that deregister under the new rule are larger than the firms that deregistered before (median $6.5 billion in total assets versus $393 million) and have less concentrated ownership (21% of shares outstanding versus 31%). In fact, firms that deregister under Rule 12h-6 are significantly larger than benchmark firms (by medians, at least) while firms that deregister before are significantly smaller. Firms that deregister before the rule have significantly lower ROA than benchmark firms as well as firms that deregister after. The ROA of firms that deregister under Rule 12h-6 is not significantly different from that of the benchmark firms. However, firms that deregister under the new rule have significantly higher leverage than benchmark firms (28% total debt to assets versus 18%) and firms that deregister before. This higher leverage could be the outcome of poorer performance.

We perform several robustness checks. We exclude financial firms from the deregistering and benchmark set of firms and require minimum total assets to exceed $100 million. Inferences are unchanged for the firms that deregister under Rule 12h-6. However, the result for sales growth holds only for medians for the firms that deregister before the new rule.

In Table 2, we estimate a multi-period logit model from 2002 to 2008 to compare the characteristics of deregistering firms with those of foreign firms listed on major U.S. exchanges that did not deregister. The dependent variable is set to a value of one in the year of deregistration; a value of zero corresponds to a firm that does not deregister in a given year. After firms deregister, they are removed from the dataset.[18] All firm characteristics are lagged by year so that we use data from 2001 to 2007. The coefficient standard errors are adjusted for clustering on firms – they are computed assuming observations are

[18] Shumway (2001) shows that a multi-period logit model is equivalent to a discrete-time hazard model because the likelihood functions of the two models are identical. For our purposes, the advantage of the logit model is that it estimates a constant in the regression, whereas, the constant is subsumed into the baseline hazard in a Cox model. Without a constant in the model we cannot estimate a dummy variable that equals one for firms that deregistered after Rule 12h-6.

independent across firms, but not within firms. The sample for Model 1 includes deregistrations before Rule 12h-6 as well as deregistrations under Rule 12h-6. The coefficients on Tobin's *q*, the financing deficit, and Log(Assets), are negative and statistically significant while the coefficient on Log(GNP) is positive and significant. In Model 2, we add a dummy variable to Model 1 that takes value one for the period for which deregistration was possible under Rule 12h-6. All the coefficients that are significant in Model 1 are significant in Model 2, but the coefficient on Rule 12h-6 is positive and significant, indicating that, even after controlling for given firm and country characteristics, Rule 12h-6 made deregistration more likely. Economically, the impact of the rule change is large: the marginal effect associated with this Rule 12h-6 coefficient is 3.46 percent (with all other control variables evaluated at their unconditional means). An important concern is that the size and significance of this coefficient may be driven by the spike in deregistrations in 2007. Model 3 is estimated only for the period before Rule 12h-6. The coefficients on Tobin's *q* and the financing deficit are negative and significant at the 10% level, while the coefficient on total assets is significant at the 1% level. The coefficient on the insider ownership variable is now positive and significant. Finally, Model 4 is estimated over the period for which Rule 12h-6 is in effect. Tobin's *q* is significant at the 10% level in Model 4, as is sales growth. The financing deficit continues to be negative and significant. Not surprisingly, the coefficient on Log(Assets) is significantly lower in Model 3 than in Model 4 and the coefficient on insider ownership is significantly higher. Higher leverage makes deregistration more likely in Model 4 and the coefficient on Leverage is significantly higher than in Model 3. Finally, the coefficient on Legal is negative and significant at the 10% level in Model 4 and it is significantly lower than the coefficient in Model 3. A Chi-squared test shows that the hypothesis that the coefficients in Models 3 and 4 are equal can be rejected at any reasonable level of significance. We estimate the models of Table 2 restricting the sample to non-financial firms with assets in excess of $100 million and the results (not reported) are similar.[19]

[19] One possible explanation for the increase in deregistration activity that is not directly related to the bonding hypothesis or to the loss of competitiveness hypothesis is that these firms invested in improving their transparency and governance systems so that a U.S. exchange listing became less valuable for their minority shareholders. To explore this possibility, we obtained 2006 data on the corporate governance scores from FTSE Institutional

Figure 2 shows that these differences in firm characteristics exist for a number of years. In Panel a, we show the evolution of sales growth for the benchmark exchange-listed firms and for the Rule 12h-6 deregistering firms from 2000 to 2007. Between 2001 and 2003, the average sales growth rates of the deregistering and benchmark firms both declined substantially. However, the growth opportunities of the deregistering firms did not recover after 2003, while those of the benchmark exchange-listed firms did. It seems unlikely that the passage of SOX had influence over the evolution of sales growth of some foreign cross-listed firms during this period.

To compare differences in the "cross-listing premium" for the Rule 12h-6 deregistering firms and the benchmark exchange-listed firms, we estimate regressions similar to those in Doidge, Karolyi, and Stulz (2004, 2009) except that we estimate the premium separately for each group of firms.[20] Panel b of Figure 2 shows the evolution of the premium. In 2000, both groups have large premiums and the difference between them is not statistically significant. In 2001 and 2002, the premium decreases for both groups of firms and the difference between them remains insignificant. In 2003, the premium for the benchmark exchange-listed firms increases relative to the deregistering firms and that difference remains through 2006. The premium is significantly greater for the benchmark firms each year from 2003 through 2006 with the exception of 2005 (p-values of 0.04, 0.09, 0.21, and 0.05, respectively, by year). The difference is not significant in 2007. The difference in the evolution of the premium after 2002 is consistent with the difference in the evolution of sales growth, which makes it unlikely that it was caused by SOX. Further, the event study evidence that follows in Section 4 shows that it is even less likely that SOX had an impact

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Shareholder Services (ISS), which covers a broad range of governance attributes, mostly for firms from developed countries. The ISS sample includes 2,349 non-U.S. firms. We matched the ISS sample with our sample in Table 2 for 54 of the 73 Rule 12h-6 deregistering firms and for 274 of their exchange-listed peers. Overall, the governance scores are lower for the deregistering firms, but when we re-estimate our multi-period logits with this smaller sample, we find that these scores do not furnish any additional explanatory power.

[20] The cross-listing premium is estimated from an ordinary least squares regression of Tobin's q on dummy variables for whether the firm was exchange-listed at some point and deregistered in 2007 under Rule 12h-6 or not, whether it is a non-deregistering U.S. exchange-listed firm or not, whether it is a Rule 144a private placement or not, whether it is an Level 1 OTC U.S. listing or not, whether it is listed in London on AIM, as a depositary receipt, or as an ordinary listing, trailing two-year geometric-averaged sales growth, median Tobin's q of the global industry group of the firm, and log assets. The regression includes all non-financial firms that are in the Worldscope database and have total assets of at least $100 million in a given year. We use this more restrictive sample here to make the results comparable with prior research. The regression is estimated with country fixed effects and with country-level clustering of standard errors.

on the differential evolution of the cross-listing premium for deregistering firms and for the benchmark exchange-listed firms during this period.

c. Comparison of Portfolio Returns

Was the stock return performance of the deregistering firms different from the performance of the benchmark exchange-listed firms during the period leading up to their decision to deregister? With the bonding theory of deregistration, we would expect that firms with poor growth opportunities in relation to their cash flows are more likely to deregister. Further, with that theory, firms would have listed when they had good growth opportunities. Consequently, we would expect their returns to underperform leading up to the decision to deregister. With the loss of competitiveness hypothesis, there is no reason to expect persistent abnormal performance in the deregistering firms, but with that hypothesis deregistering firms' stock prices should react poorly to announcements related to SOX if it decreased the competitiveness of U.S. markets.

We evaluate the risk-adjusted returns on a portfolio of the firms that deregistered over the period from 2001 to 2008. Deregistering firms are included in the portfolio starting on January 5, 2001 and are excluded from the portfolio starting one week prior to deregistration. We require that there are at least five firms in this portfolio. We compute U.S. dollar-denominated weekly (Friday to Friday) home-market returns with data from Datastream. A similar procedure is followed for a portfolio of the benchmark exchange-listed firms.[21] The return difference between the two portfolios is regressed on the weekly U.S. dollar-denominated return on the Morgan Stanley Capital International (MSCI) world market portfolio (excluding the U.S.) obtained from Datastream (in excess of the U.S. Treasury bill yield from CRSP), as

[21] We exclude benchmark firms with less than 100 weekly observations over the period of analysis (2001-2008), those with less than $10 million in total assets, and any firms that delisted prior to July 8, 2002. To eliminate extreme observations associated with thin trading, we require that firms' shares trade in at least 40% of the weekly observations. Finally, we screen the data for errors (see Ince and Porter (2006) for a discussion of the issues). The portfolio consists of 600 to 700 different firms over the period of analysis.

well as the size and book-to-market factors, SMB and HML, from Fama and French (1993) obtained from Professor Ken French's website at Dartmouth University.[22]

Table 3 presents the regression results. We estimate the regressions using equally-weighted portfolio returns (Models 1 to 3) and value-weighted portfolio returns (Models 4 to 6). The intercept of the regressions captures the difference in risk-adjusted return performance between deregistering firms and benchmark firms. Models 1 and 4 include all deregistering firms and are estimated from January 5, 2001 – June 27, 2008 (the last date for which there are at least five firms in the deregistering firm portfolio). We include a dummy variable in these regressions for firms that deregister under Rule 12h-6. Models 2 and 5 include only firms that deregistered prior to Rule 12h-6 (estimated over January 5, 2001 – December 15, 2006) and Models 3 and 6 include only firms that deregistered under Rule 12h-6. We find that deregistering firms perform poorly compared to benchmark firms when using equally-weighted portfolio returns when we examine all deregistering firms as well as for firms that deregistered before and after Rule 12h-6. However, the result is sensitive to whether we use value-weighted portfolios or equally-weighted portfolios for firms that deregister under Rule 12h-6. The fact that these firms underperform when we use an equally-weighted portfolio but not a value-weighted portfolio suggests that the underperformance is greater among the smaller firms that deregister. When we restrict the sample to non-financial firms with assets in excess of $100 million, the results reported in Table 3 are generally the same.

d. The Post-Deregistration Experience of Deregistering Firms

Data is not yet available to investigate post-deregistration characteristics by firms that deregistered under Rule 12h-6. However, we can use data for firms that deregistered before the rule change to investigate how the characteristics of these firms changed from the year before deregistration to the year after. We focus on the median of a given characteristic for deregistering firms and compare it to the

[22] SMB is a market-neutral hedge portfolio of U.S. stocks which takes long positions in small capitalization stocks and short positions in large capitalization stocks. HML is a market-neutral hedge portfolio of U.S. stocks which takes long positions in high book-to-market ratio stocks and short positions in low book-to-market ratio stocks.

median of the exchange-listed firms. We require firms to have data in Worldscope for the year before and the year after deregistration. This requirement leaves us with a sample of 57 deregistering firms. For sales growth, we use one-year trailing sales growth rather than two-year trailing sales growth as before. We find that asset size and ROA falls compared to benchmark firms. We also find that ownership becomes more concentrated. Such greater concentration might enable insiders to extract more private benefits from control.

4. SOX, Loss of Market Competitiveness, and Deregistering Foreign Firms

The Sarbanes-Oxley Act of 2002 is perhaps the most controversial reform of American corporate law in the last 70 years. It establishes rules affecting not only every public company registered in the U.S., but also many legal, auditing, and financial services firms and government agencies dealing with public companies. A number of public policy organizations and others link the passage of SOX to a loss of U.S. market competitiveness (Committee for Capital Market Reform, 2006, 2007; McKinsey and Company, 2007; U.S. Chamber of Commerce, 2007; and, Zingales, 2007).

Several empirical studies evaluate the effects of SOX on U.S. firms by examining stock returns, changes in accounting and audit costs, and going-private decisions, but with mixed results (see, among others, Rezaee and Jain, 2006; Chhaochharia and Grinstein, 2007; Engel, Hayes, and, Wang, 2007; Li, Pincus, and Rezo, 2007; Zhang, 2007). Leuz (2007) argues that the greatest challenge to these studies is the absence of a natural control group of comparable, but unaffected, U.S. firms against which to judge the impact of SOX. As a result, other researchers have sought answers by focusing on the impact of SOX on various decisions and market outcomes for foreign firms listed on U.S. exchanges relative to equivalent domestic peers unaffected by the legislation (Duarte, Kong, Young, and Siegel, 2007; Hostak, Karaoglu, Lys, and Yang, 2007; Doidge, Karolyi, and Stulz, 2009; Marosi and Massoud, 2008; and, Piotroski and Srinivasan, 2008). Studies by Berger, Li, and Wong (2005), Li (2007), Litvak (2007), and Smith (2008) examine the abnormal stock-price reactions of foreign firms listed on U.S. exchanges to the announcements of the passage of key provisions of the Act and other important related events. Litvak

concludes that there is a significant negative reaction to SOX events for exchange-listed foreign firms when measured relative to foreign firms not listed in the U.S. and to foreign firms listed in the U.S. via Rule 144a and Level 1 ADRs as benchmarks; Berger, Li, and Wong look at similar SOX-related events but use a value-weighted portfolio of U.S. stocks as a benchmark and find a positive reaction for foreign exchange-listed stocks; and, both Li and Smith uncover significant negative abnormal returns for foreign-listed firms when measured relative to home-market index returns as benchmarks.

In this section, we compare the stock-price reactions to SOX of cross-listed firms on U.S. exchanges, in general, and specifically of firms that deregister. The loss of competitiveness theory relies on the view that SOX affected firms adversely. As a result of this adverse effect, the value of a U.S. listing became negative for some firms and these firms became eager to leave the U.S. markets. They did so when they could, which for some firms meant that they had to wait for the adoption of Rule 12h-6 to leave. The loss of competitiveness theory implies that the shareholders of firms that deregistered would have suffered greater wealth losses from the passage of SOX than those of firms that did not deregister. To test this hypothesis, we necessarily have to investigate whether firms with U.S. exchange listings and deregistering firms had adverse stock-price reactions on SOX announcement days and, even more importantly, whether those reactions were larger for deregistering firms.

We can also test a corollary of the loss of competitiveness theory. The SEC eventually adopted the change in rules on terminating registration after significant lobbying pressure from a number of organizations and firms that grew in the wake of SOX. The Commission first issued proposed amendments in December 2005; following an open comment period, the revised rule was issued in December 2006 and adopted in March 2007. When it became clear that qualifying firms could deregister under the new, less-burdensome rules, their shareholders should have benefited. The SEC announcements should be associated with positive abnormal returns for the firms that would eventually deregister relative to other firms with U.S. exchange listings. Further, if there was any uncertainty about whether a specific firm could deregister, a firm's deregistration announcement following the rule's adoption by the Commission should have been associated with a positive abnormal stock-price reaction. Finally, we

should expect that the positive abnormal stock-price reactions should be larger for those firms that were most adversely impacted by the passage of SOX. We investigate each of these three additional hypotheses in this section.

a. Stock-Price Reactions of Foreign Firms to SOX

To investigate whether deregistering firms were more adversely affected by SOX than firms that did not deregister, we obtain daily U.S. dollar-denominated home-market returns from 2001 to 2003 from Datastream on each of the deregistering firms listed in Appendix A and on the benchmark set of exchange-listed foreign firms that did not deregister, as used in the analysis of the previous section. We also obtain daily U.S. dollar-denominated returns from Datastream on stocks of foreign companies listed in the U.S. markets via Level 1 OTC ADRs or Rule 144a private placements.[23]

SOX-related event dates are extracted from Table 1 of Litvak (2007).[24] She identifies 14 different events that range from the earliest proposal by the SEC to create a public company accounting oversight board (eventually, the PCAOB) in January 17, 2002, to deliberations and passage of the bill in the House of Representatives (April 22 to 24, 2002) and in the Senate Banking Committee and Senate (June 12 and July 16, 2002, respectively), to the President's signing of the bill (July 30, 2002). In the context of the loss of competitiveness hypothesis, some events are interpreted positively for U.S. listed foreign firms, such as SEC Chairman Harvey Pitt's suggestion at a *Financial Times* conference of an exemption for foreign companies (October 8, 2002), though most are perceived as negative developments.

To assess the effect of these SOX-related events, we construct equally- and value-weighted portfolios of all exchange-listed firms, of the deregistering firms and subsets thereof, and of a benchmark set of exchange-listed firms that did not deregister (seven different portfolios, in total). This approach allows us

[23] Firms with less than 260 daily observations over the period from January 1, 2001 to December 31, 2003 are excluded, as well as those with less than $10 million in total assets and those that delisted prior to July 8, 2002. As noted earlier, we also apply screens for thin trading and data errors.

[24] The 14 SOX event dates in Litvak differ from the 17 events in Zhang (2007), though 9 events are common. Zhang's dates were constructed for U.S. firms and do not include three events specific to foreign private issuers. The time-line of events in Smith (2008) is adopted from Engel, Hayes, and Wang (2007), which, in turn, is broadly similar to those in Li, Pincus, and Rego (2003) and Rezaee and Jain (2003).

to estimate the overall impact of SOX for each group of firms, while accounting for cross-correlations in firms' stock returns, a critical issue when analyzing the impact of common events, like regulatory changes, across firms (see Schwert, 1981, Schipper and Thompson, 1983; and, Binder, 1985). To estimate the abnormal stock-price reactions for the SOX events, we specify and estimate by ordinary least squares (OLS) the following regression over the period from January 1, 2001 to December 31, 2003:

$$R_{p,t} = \alpha + \beta \times R_{b,t} + \boldsymbol{\delta}' \mathbf{Event\_Dummy} + \varepsilon_t,$$

where R_p is the daily return for the portfolio of interest, R_b is the return on a benchmark portfolio, and **Event_Dummy** is a vector that contains 14 dummy variables associated with each of the key SOX dates.

We estimate this regression for the seven portfolios using equally-weighted portfolio returns (Models 1 to 7) and another seven portfolios using value-weighted portfolio returns (Models 8 to 14). In each regression, the benchmark portfolio consists of Level 1 OTC and Rule 144a firms. These firms constitute an appropriate benchmark since they are foreign firms that are participating in the international capital markets, but are not registered under the Securities Act of 1933 or the Exchange Act of 1934 and are not subject to the provisions of SOX. To define the event dummies, we set each dummy variable equal to one for the day of the event, the day before, and the day after, and to zero on all other days. We include one day before and after the event because the stocks in each portfolio come from different countries where the home markets of these stocks often have different opening hours than the U.S. markets. As a result, news in the U.S. on date *t* could be impounded in the stock price in its home country on date *t-1* or on day *t+1*.[25] All the models with long only positions have an R-square in excess of 50% and the coefficient of the portfolios on the benchmark portfolio is close to one. The coefficients on the constant term and on the event dummies that are reported in Table 4 are multiplied by 100.

In Models 1 and 8, R_p is the return on a portfolio that includes all foreign firms cross-listed on U.S. exchanges. Two SOX dates have a significant abnormal return for Models 1 and 8. For the equally-

[25] Although we use the same event dates as Litvak (2007), we define the event dummies differently to account for differences in the time zones of the firms' home markets. For example, for the early SEC announcement on January 17, we set it to one on January 16, 17, and 18 whereas Litvak sets it to one only on January 18 (Litvak, 2007, Table 1). When we re-define the dummies this way, however, none of our main conclusions are affected.

weighted portfolios in Model 1, there is a negative significant abnormal return on the date of the first announcement by the Senate Committee (Event 4, 0.52% with a *t*-statistic of 1.70) but there is a positive and significant abnormal return on the day that the President signed the bill into law (Event 11, 0.65% with a *t*-statistic of 2.11). The latter result is not consistent with the loss of competitiveness hypothesis, but the former is. For the value-weighted portfolios in Model 8 there are positive and significant coefficients around the day that the Senate Banking Committee met and approved the bill (Event 5, 0.61% with a *t*-statistic of 2.05) and around the day that Chairman Pitt suggested an exemption (Event 13, 0.40% with a *t*-statistic of 1.73). The latter result is consistent with the loss of competitiveness hypothesis, but the former is not. Overall, there is no pervasive evidence that the SOX event days had an adverse impact on foreign firms listed on U.S. exchanges.

Models 2 and 9 are estimated for all deregistering firms. For both regressions, there is a significant negative abnormal return associated with a date when an announcement was made that foreign-listed firms would not be exempted from some SOX rules. For the equally-weighted portfolio, there is an abnormal return of -0.984% (*t*-statisic of 2.39) for the announcement of no exemption to SEC Rule 302 (Event 12) and an abnormal return of 0.500% that is insignificant for the announcement of no exemptions to Rules 404, 406, and 407 (Event 14). For the value-weighted portfolio, there is an insignificant abnormal return of -0.343% for the former announcement and an abnormal return of -0.578% significant at the 10% level for the latter announcement. Though these results are consistent with the loss of competitiveness hypothesis, in Model 9 there is a large positive and significant abnormal return on the day of the Senate Committee decision (Event 5) that is hard to interpret in the context of that hypothesis. We also estimate these regressions separately for the firms that deregister before Rule 12h-6 (Models 3 and 10) and those that deregister under that rule (Models 4 and 11). The evidence is mixed. For the equally-weighted portfolios, the firms that use Rule 12h-6 appear to be sensitive to announcements concerning potential exemptions from SOX. However, this is not the case for the value-weighted portfolios. The evidence for equally-weighted returns is weaker for the firms that deregister before Rule 12h-6.

The last three sets of regressions for both the equally-weighted and value-weighted portfolio returns are long positions in the deregistering firms and short positions in portfolios of exchange-listed firms that did not deregister (in Models 5 and 12, the deregistering firm portfolio includes all deregistering firms; in 6 and 13, it includes firms that deregistered prior to Rule 12h-6; and, in 7 and 14, it includes firms that deregistered under Rule 12h-6). The results show again some evidence that deregistering firms experience worse returns on dates of announcements that foreign firms would not be exempted from SOX rules for the equally-weighted portfolios. For the value-weighted portfolios, the results are weaker. Moreover, the deregistering firms do better on two other dates when they would be predicted to have worse returns (Events 5 and 9) and they do worse on two dates when they would be predicted to do better (Events 10 and 13). On balance, it seems that the smaller firms that deregister under Rule 12h-6, but not the larger firms, were affected more strongly by announcements concerning the applicability of SOX to cross-listed firms than other cross-listed firms.

In Panel b, we aggregate all the SOX dates into one SOX dummy variable. We use a value of -1 for the days that should have positive abnormal returns according to the loss of competitiveness hypothesis. Again, we find different results for the equally-weighted and value-weighted portfolios. For the equally-weighted portfolios, the deregistering firms were affected adversely by the SOX events and the non-deregistering firms were not. There is no evidence that SOX had any effect for any group of firms when we use value-weighted portfolio returns. In Panel c, we redefine our composite SOX dummy variable for a subset of SOX events; namely those identified by Litvak (2007) in her Table 1 as important. These dates are highlighted in bold in Panel a of Table 4. The evidence is mixed. There is some evidence that the SOX announcements had a negative impact when we consider the returns of equally-weighted portfolios and there is evidence that the impact is worse for firms that deregister under Rule 12h-6 than it is for firms

that do not deregister. However, there is no evidence for the value-weighted portfolios that these SOX announcements had a negative impact on the stock prices of foreign firms.[26]

What we learn from these different specifications is that inferences about whether or not SOX had an adverse impact on foreign firms listed on U.S. exchanges or on deregistering firms are model sensitive. For example, Litvak (2007) concludes that SOX had a negative impact on the stock prices of foreign firms with U.S. exchange listings. However, her approach gives equal weight to each observation or uses an equally-weighted benchmark.[27] The results we report in Table 4 with equally-weighted portfolios are consistent with the results reported in Litvak (2007), but the results with value-weighted portfolios show that there is little evidence to support the conclusion that SOX had a negative impact on stock prices. Since an equally-weighted portfolio gives more weight to small firms than a value-weighted portfolio, it seems reasonable to say that the results are consistent with the view that the aggregate wealth losses associated with SOX were not economically significant but that there is some evidence that the smallest firms were affected adversely. When we compare firms that deregistered with those that did not, there is evidence that firms that deregistered under Rule 12h-6 were affected more adversely by SOX when we use equally-weighted portfolios, but none when we use value-weighted portfolios. Our evidence for foreign firms is therefore consistent with some evidence for U.S. firms showing that smaller firms were affected adversely by SOX but not the larger firms (e.g. Chhaochharia and Grinstein, 2007). These conclusions are robust if we restrict our sample firms to non-financial firms with assets of more than $100 million.

[26] To understand better the role of portfolio weighting in the results, we also estimate regressions in Panel c using an equally-weighted portfolio as the dependent variable and a value-weighted portfolio as the benchmark portfolio. The results are similar to those reported in the table.

[27] The *t*-statistics on the SOX dummies reported in Litvak's Table 6 are also likely overstated. The regressions are estimated using ordinary least squares, which is problematic when the regression uses firm-level data and event dates common across all firms. The standard errors do not account for the cross-correlation of the error terms across firms, which is likely to be substantial around the event period.

b. Stock-Price Reactions of Deregistering Firms to Exchange Act Rule 12h-6

Did the firms that deregistered in 2007 and 2008 under Rule 12h-6 react favorably to the announcements of the new rules to ease the process toward termination of registration? The loss of competitiveness theory would predict it would be so since the market at that time would have understood well the costs of the new provisions of SOX and likely knew that these firms would have a good chance to be eligible to exercise the option to deregister under the new rules.

To answer this question, we use the same equally- and value-weighted portfolios of the sample of deregistering firms (Rule 12h-6 firms only) and benchmark portfolios of the other exchange-listed foreign firms and Level 1 OTC/Rule 144a private placement firms. There are three events we consider in the analysis: (a) December 14, 2005, which was the date of the announcement of the proposed rule,[28] (b) December 13, 2006, which was the date of the announcement of the re-proposed rule after the extended comment period,[29] and (c) March 21, 2007, when the Commission officially adopted the rule. We use the same methodology as the previous section considering each deregistration event date with a separate dummy variable and a condensed event dummy for all three events.

Table 5 provides our estimates of the stock-price reactions to the announcements related to Rule 12h-6. We find that no date that has a significant stock-price reaction. The result for exchange-listed firms for the last announcement date is not surprising in light of the work of Fernandes, Lel, and Miller (2009).[30] The result for deregistering firms is hard to reconcile with the loss of competitiveness theory since the market would presumably have anticipated that these firms would benefit from the announcements. However, the estimates are not supportive of the bonding theory either. With that theory, we would expect a negative announcement return for the rule change since allowing firms to renege more easily on the bonding provided by adherence to U.S. laws and regulations would decrease the value of a U.S.

[28] See Release No. 34-53020 and as it applies to 17 Code of Federal Regulation Parts 200, 232, 240 and 249. http://www.sec.gov/rules/proposed/34-53020.pdf.

[29] See Release No. 34-55005 at http://www.sec.gov/rules/proposed/2006/34-55005.pdf.

[30] Fernandes, Lel and Miller (2009) focus on the March 27, 2007 date, but also consider several dates related the passage of Rule 12h-6, including the December 14, 2005 first proposal, the December 13, 2006 re-proposal of the rule, and a January 25, 2005 announcement that the SEC was considering a revision. They also find that the stock prices of firms do not appear to have reacted to these earlier announcements.

listing. At the same time, Fernandes, Lel, and Miller (2009) find that the stock-price reactions are negative and significant for firms from countries with weak governance and disclosure. They conclude that this result is consistent with the bonding theory. We repeated the analysis with the more restrictive sample that excludes financial firms are requires assets of at least $100 million and with longer event windows and our basic results are unchanged.[31]

c. Stock-Price Reactions of Deregistering Firms to their Deregistration Announcements

We now turn to the stock-price reactions around firms' deregistration announcements. We estimate abnormal returns using three-day market model residuals. Our benchmark portfolio consists of all non-U.S. firms with Level 1 and Rule 144a ADRs for Panel a and all non-deregistering foreign firms cross-listed on U.S. exchanges in Panel b. We lose four firms from the sample of firms that deregistered prior to Rule 12h-6 because they do not have returns data available in Datastream around their respective deregistration announcement dates. Further, we exclude six firms that made other potentially confounding announcements on the same day that they announced their deregistration decisions. We compute *t*-statistics and account for cross-sectional dependence as in Brown and Warner (1985).

The results are reported in Table 6. We first consider the sample of all deregistering firms. Regardless of the benchmark portfolio used, the mean abnormal return is negative (between -1.11% and -1.26%) and significant at least at the 5% level. All binomial tests are significant as well. When we turn to the pre-Rule 12h-6 deregistering firms, we find larger negative abnormal returns (-1.92% to -2.15%). Finally, when we turn to the Rule 12h-6 deregistering firms, the average abnormal return is not significantly different from zero and is significantly smaller than the average abnormal return of the firms that deregistered before the

[31] Although the results are similar when we use a longer event window, it is still possible that the market anticipated the rule change announcements. On February 9, 2004, the European Association for Listed Companies submitted a letter to the SEC complaining about the deregistration rules. On various occasions prior to the new rule proposal in December 2005, the SEC announced it was considering changes to the rules, but did not provide any details. For example, in a speech on January 25, 2005, SEC Chairman William Donaldson stated that he "expects the SEC to consider whether there should be a new approach to the deregistration process for foreign private issuers" and, on October 7, 2005, SEC Commissioner Cynthia Glassman stated that "I fully support the staff's initiative to take a fresh look at our rules in order to ease the deregistration process, so long as any new approach continues to protect US investors." See "SEC set to make delisting easier for foreign firms" *Reuters News* (January 25, 2005) and "The SEC in a global marketplace: current issues" *States News Service* (October 7, 2005).

rule. However, the binomial test is significant for the Rule 12h-6 firms. In all cases, we can reject the hypothesis that the average or median abnormal return is positive. Though we do not show the results in the table, we also evaluated the abnormal returns for each calendar year. The average abnormal return is negative every year, although in 2007 the average abnormal return is small in magnitude (only -0.15%). Strikingly, however, the average abnormal return for 2008 is -1.52% with a *t*-statistic of -1.11. The lack of precision could stem from the fact that there are only 17 observations in 2008, but, in any case, one should be careful in interpreting the average abnormal return for that year. Interestingly, this average abnormal return is more similar to the returns before Rule 12h-6 than to the average abnormal return for 2007.

We performed several robustness checks on these results. First, we excluded financial firms and firms with assets of less than $100 million. This size requirement has a minimal impact on the Rule 12h-6 sample, but, not surprisingly, it has a bigger impact on the sample of firms that deregistered prior to that rule, where we lose about 30% of the firms. The results for the Rule 12h-6 firms are similar to those reported in the table, while those for the firms that deregistered prior to this rule are weaker. We also investigate the sensitivity of the results to the choice of event date. For firms that deregistered prior to the rule change, in 43 out of 67 cases, delisting and deregistration are announced on the same date, while for firms that deregistered under Rule 12h-6, the announcement date is the same for 62 out of 73 firms. Because delisting could be the first signal that the firm plans to deregister, we use the delisting announcement as the event date if it is before the deregistration announcement. The results are similar to those reported in the table, although the announcement returns for firms that deregistered prior to the rule change are smaller in magnitude (around -1.60% with *t*-statistics of 1.80).

We next turn to regressions to understand the cross-sectional variation in abnormal returns. These regressions are presented in Table 7. The format of the table is exactly the same as the format of Table 2, although we add two additional variables in these regressions: “U.S. trading %” which is the percentage of the total average daily trading volume (home market plus U.S. market) that takes place in the U.S. and a “SOX cost dummy” which equals one for the 28 firms that mentioned compliance costs associated with

SOX as a motivation for the deregistration decision in their respective press releases. We estimate the regressions using firm characteristics from the year before deregistration. We show results for two benchmark portfolios: the equally-weighted portfolio of Level 1 OTC/Rule 144a cross-listed firms and the value-weighted portfolio of exchange cross-listed firms that did not deregister.

Model 1 includes all deregistering firms. The most reliable result we find is that firms with larger financing deficits have significantly larger negative share price reactions. That is, shareholders experience a wealth loss in firms with greater financing needs that choose to pursue deregistration from U.S. markets. This finding is consistent with the finding in Table 2 earlier that firms with such deficits are much less likely to pursue a deregistration in the first place. The finding is robust to the benchmark portfolio used in the specification of abnormal returns (including unreported specifications of value-weighted portfolios of Rule 144a/OTC benchmark firms and equally-weighted portfolios of exchange listed benchmark firms). Few of the other variables are reliably significant in these regressions. Part of the reason may be that the other proxies for growth opportunities, such as sales growth, Tobin's *q*, global industry *q,* and ROA are correlated. To assess this possibility, we evaluate alternative model specifications. For example, if we exclude Tobin's *q*, ROA, and the financing deficit variables, the negative coefficient on sales growth becomes significant. In Model 2, we include a dummy variable that equals one for firms that deregister under Rule 12h-6. This dummy variable is not significant and the other results are unchanged.

The results differ for firms that deregister before the adoption of Rule 12h-6 (Model 3) and those that deregister under that rule (Model 4). We find that for firms that deregister prior to Rule 12h-6, the coefficient on the financing deficit remains negative and significant. For firms that deregister under Rule 12h-6, the coefficient on the financing deficit, though still negative, is no longer significant. However, deregistering firms under Rule 12h-6 with higher sales growth do experience worse announcement returns, even when including the alternative proxies for growth opportunities in the specification (at least with the Rule 144a/OTC firms as the benchmark portfolio). In Table 1, we show that Rule 12h-6 deregistrants are larger in size and have smaller financing surpluses than the pre-Rule 12h-6 deregistrants,

which could explain why share price reactions are more acutely sensitive to financing needs for pre-Rule 12h-6 deregistrants and to sales growth for Rule 12h-6 deregistrants.

Overall these results are consistent with the bonding hypothesis. With that hypothesis, bonding is more valuable for firms with better growth opportunities that have to be financed externally. In all of our regressions, sales growth consistently has a negative coefficient (though it is only significant in the regressions for the Rule 12h-6 subsample in the regressions reported in the table) and we always find that one of the variables that proxies for growth opportunities or financing need is significantly negatively related to the stock-price reaction to the deregistration announcement. However, one alternative explanation of the sales growth and financing deficit results could be that the market infers from the announcement that the firm's growth opportunities are poorer than expected or their financing needs are more severe. Leuz, Triantis, and Wang (2008) test this hypothesis for a sample of U.S. firms that deregister. The problem with this explanation in our context, however, is that it requires a theory other than bonding to rationalize why the market would have such a reaction. Admittedly, there is a cost saving from delisting and deregistering, but that saving would seem small enough for the firms in our sample such that it is unlikely to support such a signaling outcome.

We further investigate whether firms attribute their decision to deregister partly to SOX and U.S. regulatory burdens. For 28 of the 134 firms included in the event study, we find evidence of this, based on statements made in the press release of the deregistration announcement and set the SOX cost dummy equal to one for these firms. This dummy variable has a negative coefficient in seven out of eight of the models, but it is never statistically significant.

The evidence in Table 7 suggests that deregistration is typically bad news for shareholders of firms with good growth opportunities or with financing needs. Such firms are those for which a U.S. listing with SEC registration is likely to be more valuable. Hence, it might not be surprising that the market would react poorly to the announcement that such firms chose to deregister. As we noted in Table 2, the firms that deregister under Rule 12h-6 are different from those that deregistered before.

5. Conclusions

In this paper, we analyze a sample of firms that chose to deregister from the SEC and leave U.S. equity markets over the period from 2002 through 2008. Because it was extremely difficult to deregister before March 27, 2007 when the SEC adopted its new Exchange Act Rule 12h-6 to facilitate deregistration, foreign firms that wished to deregister most likely did not do so because they were unable to meet the necessary requirements. When Rule 12h-6 came into effect, deregistration became substantially easier and the change in the rules was followed by a large spike in the number of deregistrations that did not extend into the following year. We investigate why foreign firms deregister, how the rule change affected firms' deregistration decisions, and what the economic consequences are of their decisions to deregister.

Two theories offer predictions about the characteristics of and consequences for deregistering firms. The first theory follows directly from the bonding theory of cross-listing that predicts corporate insiders value a listing when their firm has valuable growth opportunities that they can finance on better terms by committing to the laws and rules that govern U.S. markets. The listing comes at a cost to insiders since it limits their ability to extract private benefits from their controlling position. If a firm is no longer expected to require outside finance because its growth opportunities have been taken advantage of or because they have disappeared, a listing is no longer valuable for insiders. Consequently, firms that deregister should be those with poor growth opportunities, have little need for external capital, and have performed poorly. Deregistration should be advantageous for insiders, but not for minority shareholders, so that it should be accompanied by a negative abnormal return. Further, this negative return should be worse for firms with higher growth opportunities and more need for external capital. With the bonding theory, the value of a cross-listing is higher for a firm if it is harder for the firm to deregister. Consequently, the passage of new Exchange Act Rule 12h-6 should have had an adverse impact on cross-listed firms. Like Fernandes, Lel, and Miller (2009), we fail to find support for this prediction of the bonding theory for the overall rule change. However, they further investigate the cross-sectional reaction

to the announcement and find that the firms that in theory would benefit the most from bonding reacted more poorly to the announcement.

We also consider a hypothesis which we call the loss of competitiveness theory. This theory predicts that firms deregister because the Sarbanes-Oxley Act of 2002, and possibly other regulatory developments, reduced the net benefits of a U.S. listing so that, for some firms, the value of a listing became negative. With this explanation, foreign firms should have experienced wealth losses from SOX, the firms that deregistered should have experienced worse wealth losses, and the introduction of the new deregistration rules and the deregistration announcements themselves should increase shareholder wealth. It is possible, however, that the deadweight regulatory costs that motivate the loss of competitiveness theory could have led to deregistration activity even if the bonding hypothesis is correct, in that these costs might have led cross-listings to stop being advantageous for some firms.

We find no unambiguous evidence supportive of the loss of competitiveness hypothesis. The clearest evidence in favor of this hypothesis would be that deregistering firms benefit from deregistration and were adversely affected by SOX. We find no evidence that the minority shareholders of deregistering firms benefit from deregistration. There is some evidence that these firms were affected adversely by SOX when we use equally-weighted portfolios, but not when we use value-weighted portfolios and value-weighed portfolios are arguably the correct way to measure the overall economic impact since they reflect the overall value change of these firms. In contrast, we find evidence that is consistent with the bonding hypothesis. Specifically, the deregistering firms are poor performers, have lower growth opportunities, and have a financing surplus, all characteristics that reduce the value of a cross-listing with the bonding theory. Further, we find in most tests that the market reacts negatively to the announcements of SEC deregistration. Finally, we show that the stock-price reactions are worse for firms with better growth opportunities and with greater financing deficits, which are the firms that are still likely to benefit more from bonding.

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Table 1. Summary Statistics.

This table compares the characteristics of the 144 non-U.S. firms that deregistered from major U.S. exchanges with the characteristics of non-U.S. firms with cross-listings on U.S. exchanges that did not deregister. There are 71 firms that deregistered between 2002 and March 2007 prior to Rule 12h-6: 9 in 2002; 14 in 2003; 9 in 2004; 14 in 2005; 23 in 2006; and 2 in 2007. There are 73 firms that deregistered using Rule 12h-6 between March 21, 2007 and December 31 30, 2008: 55 in 2007 and 18 in 2008. Each year there are between 447 and 651 exchange-listed firms that did not deregister between 2002 and 2008 with data on firm characteristics. Firm characteristics are compared in the year prior to deregistration and the data is pooled across two sub-periods, 2002-March 2007 (Panel a) and April 2007-2008 (Panel b). The Excess median is computed by subtracting the median value for a given characteristic for exchange-listed firms from the deregistering firm's characteristic. The table reports the median of this difference. Firm-level data is from the Worldscope database. Sales growth is inflation adjusted two-year sales growth (winsorized at 1% and 99% tails), global industry *q* is the median global industry *q,* Tobin's *q* is computed as ((Total Assets – Book Equity) + Market Value of Equity) / Total Assets (all variables are in local currency), the financing deficit is computed as the sum of cash dividends, investments, change in net working capital less internal cash flow, scaled by total assets (multiplied by 10 in the table for reporting purposes), total assets are in $ millions, leverage is defined as total debt divided by total assets, ROA is return on assets, and ownership is the data item "closely-held shares" from Worldscope. Common law is a dummy variable that equals one if a country's legal origin is based on common law. Legal is anti-director × rule of law, from Djankov et al. (2008) and La Porta et al. (1998). Log of GNP per capita ($) and stock market capitalization to GDP are from the World Bank WDI Database. *, **, and *** indicate that the deregistering firms' characteristics are significantly different from the exchange-listed firms' characteristics in a given period at the 10%, 5%, and 1% levels, respectively. #, ##, and ### indicate that the Excess median for firms that deregistered prior to Rule 12h-6 is significantly different from the Excess median for firms that deregistered after Rule 12h-6.

	Panel a. Pre-Rule 12h-6 period (2002-March 2007)					Panel b. Rule 12h-6 period (April 2007-2008)				
	Deregistering firms			Exchange-listed firms		Deregistering firms			Exchange-listed firms	
	Mean	Median	Excess median	Mean	Median	Mean	Median	Excess median	Mean	Median
Sales growth	0.04*	0.02***	-0.04	0.11	0.06	0.05***	0.04***	-0.05	0.13	0.09
Tobin's *q*	1.54*	1.25	-0.10	1.74	1.35	1.69***	1.42	-0.12	2.01	1.53
Global industry *q*	1.26	1.19	0.01$^{\#}$	1.26	1.19	1.40***	1.40*	-0.02	1.50	1.41
Financing deficit	-0.02**	-0.03***	-0.06$^{\#\#}$	0.43	0.03	-0.06***	-0.04**	-0.01	0.60	0.07
Total assets	5325.65***	393.32***	-1062.28$^{\#\#\#}$	31972.32	1455.6	26304.49***	6556.72***	4552.11	58480.7	2004.62
Leverage	0.22	0.17	-0.04$^{\#\#\#}$	0.23	0.21	0.27***	0.28***	0.1	0.20	0.18
ROA	-0.07***	0.02***	-0.02$^{\#\#\#}$	0.01	0.04	0.05	0.06	0.01	0.03	0.05
Ownership	0.37	0.31	0.02$^{\#\#}$	0.33	0.28	0.23**	0.21**	-0.04	0.32	0.25
Common law	0.46*	0.00**	-1.00	0.58	1.00	0.36***	0.00***	-1.00	0.57	1.00
Legal	30.79	31.43	-0.17	31	31.6	31.84*	35.00	3.40	29.89	31.60
GNP / capita	10.02***	10.17***	0.14$^{\#}$	9.65	10.03	10.46***	10.51	0.01	9.90	10.50
Market cap / GDP	0.91**	0.95	-0.02	1.02	0.97	1.28*	1.18**	-0.16	1.42	1.34

Table 2. Multi-Period Logit Regressions: The Characteristics of Deregistering Firms.
The logit models estimate the probability of deregistration in year *t*, given that the firm has not yet deregistered, over the period from 2002 to 2008. The dependent variable equals one for the 144 non-U.S. firms that deregistered from major U.S. exchanges in the year of deregistration (71 firms prior to Rule 12h-6 and 73 firms after Rule 12h-6). After firms deregister they are removed from the dataset. Model 1 includes all deregistering firms. Model 2 is the same as Model 1, but adds a Rule 12h-6 dummy variable that equals one for firms that deregistered under that rule. Model 3 is estimated over 2002-2006 and excludes firms that deregistered after Rule 12h-6. Model 4 is estimated over 2007-2008 and excludes firms that deregistered prior to Rule 12h-6. Firm-level data is from the Worldscope database. All independent variables are lagged by one year. Sales growth is inflation adjusted two-year sales growth (winsorized at 1% and 99% tails), Tobin's *q* is computed as ((Total Assets – Book Equity) + Market Value of Equity) / Total Assets (all variables are in local currency), global industry *q* is the median global industry *q*, the financing deficit is computed as the sum of cash dividends, investments, change in net working capital less internal cash flow, scaled by total assets, total assets are in $ thousands, leverage is defined as total debt divided by total assets, ROA is the return on assets, and ownership is the data item "closely-held shares" from Worldscope. Legal is anti-director × rule of law, from Djankov et al. (2008) and La Porta et al. (1998). Log of GNP per capita ($) and stock market capitalization to GDP are from the World Bank WDI Database. The *t*-statistics, in parentheses are adjusted for clustering on firms – they are computed assuming observations are independent across firms, but not within firms. Pseudo-R^2 is a goodness-of-fit measure based on the difference between unrestricted and restricted likelihood functions. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively. #, ##, and ### indicate statistical significance for a chi-squared test that tests whether the coefficients are equal between the pre-Rule12h-6 (Model 3) and Rule 12h-6 (Model 4) periods and "Chi-squared" indicates the joint test that all coefficients are equal between pre-Rule 12h-6 and Rule 12h-6 periods.

	Model 1 All deregistering firms	Model 2 All deregistering firms	Model 3 Pre-Rule 12h-6 deregistering firms	Model 4 Rule 12h-6 deregistering firms
Constant	-18.804 (5.06)***	-13.902 (4.95)***	-12.237 (3.15)***	-13.931 (3.01)***
Sales growth	-0.525 (1.04)	-0.590 (1.12)	-0.254 (0.39)	-1.503 (1.91)*
Tobin's *q*	-0.264 (2.31)**	-0.248 (2.19)**	-0.328 (1.77)*	-0.228 (1.65)*
Global industry *q*	0.241 (0.74)	-0.495 (1.22)	0.598 (1.19)	-0.998 (1.59)##
Financing deficit	-2.190 (2.72)***	-2.251 (3.04)***	-2.586 (1.86)*	-2.201 (2.93)***
Log(Assets)	-0.145 (3.39)***	-0.170 (3.95)***	-0.247 (3.63)***	-0.124 (2.05)**, #
Leverage	-0.025 (0.05)	0.138 (0.24)	-1.094 (1.11)	1.469 (1.77)*, ##
ROA	-0.433 (0.53)	-0.627 (0.78)	-1.378 (1.63)	1.351 (0.92)
Ownership	0.259 (0.60)	0.252 (0.56)	1.335 (2.11)**	-0.705 (1.13)##
Legal	-0.015 (1.30)	-0.005 (0.46)	0.021 (1.07)	-0.024 (1.67)*, #
Stock market cap / GDP	-0.247 (1.57)	-0.479 (2.17)**	-0.654 (2.40)**	-0.405 (1.26)
Log(GNP)	1.818 (4.70)***	1.400 (4.78)***	1.133 (2.69)***	1.584 (3.38)***
Rule 12h-6 dummy		1.507 (6.31)***		
Chi-squared test (*p*-value)			61.55 (0.00)	
Number of observations	3384	3384	2527	857
Pseudo R^2	0.0931	0.1370	0.1144	0.1269

Table 3. Return Performance of Deregistering Firms.

This table compares the return performance of firms that deregistered with non-U.S. firms cross-listed on U.S. exchanges that did not deregister. The regression, $R_{Dereg,\,t} - R_{Bench,\,t} = \alpha + \beta \times [R_{W\_exUS,\,t} - R_{f,t}) + \gamma \times SMB_t + \delta \times HML_t + \varepsilon_t$, is estimated by OLS. R_{Dereg} is the weekly (Friday to Friday) U.S. dollar return on a portfolio of firms that deregistered. R_{Bench} is return on a portfolio of non-U.S. firms cross-listed on U.S. exchanges that did not deregister. We require that this portfolio have at least five firms. R_{W_exUS} is the weekly U.S. dollar return on the world market portfolio (excluding the U.S.). SMB and HML are the size and book to market factors from Fama and French (1993). Firms with less than 100 weekly observations, less than $10 million in total assets, and firms that delisted prior to July 8, 2002 are excluded. Deregistering firms are included in the portfolio starting on January 5, 2001 and are excluded from the portfolio starting one week prior to deregistration. Models (1) and (4) include all deregistering firms and the regression is estimated from January 5, 2001 – June 27, 2008. Models (2) and (5) estimate the regression for the firms that deregistered prior to Rule 12h-6 (over January 5, 2001 – Dec 15, 2006). Models (3) and (6) estimate the regression for firms that deregistered after Rule 12h-6 (over January 5, 2001 – June 27, 2008). *t*-statistics are in parentheses. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

	Equally-weighted portfolio returns			Value-weighted portfolio returns		
	(1) All deregistering firms	(2) Pre-Rule 12h-6 deregistering firms	(3) Rule 12h-6 deregistering firms	(4) All deregistering firms	(5) Pre-Rule 12h-6 deregistering firms	(6) Rule 12h-6 deregistering firms
Constant	-0.00238	-0.00241	-0.00127	-0.00082	-0.00191	-0.00004
	(3.17)***	(2.63)***	(2.03)**	(1.27)	(1.78)*	(0.07)
World market ex-U.S.	0.06489	0.09496	0.06154	-0.04622	0.24007	-0.10168
	(2.22)**	(2.10)**	(2.06)**	(1.83)*	(4.53)***	(3.79)***
SMB	-0.04543	0.06284	-0.14028	0.06620	0.22073	0.03695
	(0.85)	(0.82)	(2.57)**	(1.43)	(2.45)**	(0.75)
HML	-0.02229	-0.16274	0.05459	0.22673	-0.02368	0.30749
	(0.38)	(2.00)**	(0.91)	(4.47)***	(0.25)	(5.73)***
Rule 12h-6 dummy	0.00261			0.00158		
	(2.04)**			(1.42)		
Number of observations	391	309	391	391	309	391
Adjusted R^2	0.0159	0.0285	0.0182	0.0561	0.0902	0.1147

Table 4. Stock-Price Reactions of Exchange-Listed firms and Deregistering Firms Around SOX Events.

The regression $R_{p,t} = \alpha + \beta \times R_{b,t} + \boldsymbol{\delta}' \mathbf{Event\_Dummy} + \varepsilon_t$, is estimated from Jan 1, 2001 – Dec 31, 2003. **Event_Dummy** is a vector that includes dummy variables for the SOX event dates from Litvak (2007), Table 1. Events predicted to have a negative (positive) reaction have "-" ("+") superscripts. Events in bold are identified by Litvak (2007) as important SOX events. In (1) and (8) R_p is the daily U.S. dollar return on a portfolio that includes all non-U.S. firms cross-listed on U.S. exchanges. In (2) and (9) the portfolio includes all firms that deregistered between 2002 and 2008; in (3) and (10) it includes all firms that deregistered prior to Rule 12h-6 between 2002 and 2006; in (4) and (11) it includes all firms that deregistered after Rule 12h-6 between 2007 and 2008. In (5) – (7) and (12) – (14) R_p is the difference in returns on the portfolio of deregistering firms (all deregistering firms; deregistering firms prior to Rule 12h-6; deregistering firms after Rule12h-6) and the portfolio of exchange-listed firms that did not deregister (denoted "Dereg – Exch"). R_b is the return on the benchmark portfolio that includes all non-U.S. firms listed in the U.S. via Level 1 or Rule 144a ADRs. Firms with less than 260 daily observations, less than $10 million in total assets, and firms that delisted prior to July 8, 2002 are excluded. In Panel a, coefficients are estimated for each event dummy variable. In Panels b and c, a single dummy variable that equals one (negative one) on predicted negative (positive) events is defined. Coefficients on the constant and the event dummies are multiplied by 100. *t*-statistics are in parentheses. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively. The *t*-statistics for the coefficient on the benchmark portfolio are all significant at the 1% level (*'s not shown).

	Equally-weighted portfolio returns							Value-weighted portfolio returns						
Panel a. Individual SOX event dummies	(1) Exch listed firms	(2) All Dereg Firms	(3) Pre-Rule Dereg Firms	(4) Rule 12h-6 Dereg Firms	(5) Dereg – Exch	(6) Dereg – Exch	(7) Dereg – Exch	(8) Exch listed firms	(9) All Dereg Firms	(10) Pre-Rule Dereg Firms	(11) Rule 12h-6 Dereg Firms	(12) Dereg – Exch	(13) Dereg – Exch	(14) Dereg – Exch
Constant	-0.026	-0.104	-0.122	-0.091	-0.095	-0.113	-0.081	-0.053	-0.051	-0.129	-0.027	0.002	-0.075	0.027
	(1.34)	(3.93)***	(3.40)***	(3.52)***	(4.91)***	(3.96)***	(3.83)***	(2.79)***	(2.37)**	(3.02)***	(1.25)	(0.13)	(2.15)**	(1.21)
1^- Early SEC	-0.292	-0.503	-0.433	-0.559	-0.257	-0.187	-0.312	-0.093	-0.215	-0.574	-0.108	-0.139	-0.498	-0.031
	(0.95)	(1.23)	(0.78)	(1.40)	(0.86)	(0.42)	(0.96)	(0.31)	(0.64)	(0.86)	(0.32)	(0.49)	(0.91)	(0.09)
2^- House Committee	-0.351	-0.830	-1.560	-0.250	-0.582	-1.312	-0.001	-0.142	-0.232	-0.639	-0.125	-0.103	-0.510	0.005
	(1.14)	(2.02)**	(2.80)***	(0.63)	(1.96)*	(2.98)***	(0.00)	(0.48)	(0.69)	(0.96)	(0.37)	(0.36)	(0.93)	(0.02)
3^- Full House	-0.231	-0.344	-0.618	-0.124	-0.137	-0.411	0.083	-0.147	-0.227	-0.254	-0.224	-0.091	-0.118	-0.088
	(0.97)	(1.08)	(1.43)	(0.40)	(0.59)	(1.21)	(0.33)	(0.64)	(0.87)	(0.49)	(0.85)	(0.42)	(0.28)	(0.33)
4^- Senate Committee 1st announcement	-0.521	-0.321	-0.468	-0.202	0.243	0.096	0.362	-0.031	0.289	0.108	0.317	0.365	0.185	0.394
	(1.70)*	(0.78)	(0.84)	(0.51)	(0.82)	(0.22)	(1.11)	(0.11)	(0.85)	(0.16)	(0.93)	(1.29)	(0.34)	(1.15)
5^- Senate Committee follow up	0.382	0.519	0.205	0.771	0.166	-0.148	0.418	0.611	1.029	0.913	1.046	0.478	0.361	0.494
	(1.25)	(1.26)	(0.37)	(1.94)*	(0.56)	(0.34)	(1.28)	(2.05)**	(3.04)***	(1.37)	(3.07)***	(1.69)*	(0.66)	(1.45)
6^- WorldCom Announcement	0.135	0.260	0.274	0.251	0.152	0.166	0.143	0.435	0.181	0.477	0.087	-0.290	0.007	-0.384
	(0.44)	(0.63)	(0.49)	(0.63)	(0.51)	(0.38)	(0.44)	(1.46)	(0.53)	(0.71)	(0.25)	(1.02)	(0.01)	(1.12)
7^- Sarbanes Amendment	-0.158	-0.221	-0.231	-0.213	-0.076	-0.086	-0.069	-0.125	-0.247	0.478	-0.399	-0.138	0.587	-0.290
	(0.59)	(0.62)	(0.48)	(0.62)	(0.30)	(0.23)	(0.24)	(0.49)	(0.84)	(0.83)	(1.35)	(0.57)	(1.24)	(0.98)

Table 4, continued.

Panel a. Individual SOX event dummies	Equally-weighted portfolio returns							Value-weighted portfolio returns						
	(1) Exch listed firms	(2) All Dereg Firms	(3) Pre-Rule Dereg Firms	(4) Rule 12h-6 Dereg Firms	(5) Dereg – Exch	(6) Dereg – Exch	(7) Dereg – Exch	(8) Exch listed firms	(9) All Dereg Firms	(10) Pre-Rule Dereg Firms	(11) Rule 12h-6 Dereg Firms	(12) Dereg – Exch	(13) Dereg – Exch	(14) Dereg – Exch
8⁻ Dorgan Amendment	-0.281	-0.465	-0.658	-0.309	-0.222	-0.415	-0.067	-0.420	-0.334	-0.777	-0.274	0.098	-0.345	0.158
	(0.81)	(1.00)	(1.04)	(0.69)	(0.66)	(0.83)	(0.18)	(1.24)	(0.87)	(1.03)	(0.71)	(0.31)	(0.56)	(0.41)
9⁻ Bills pass House and Senate	0.039	0.317	0.651	0.051	0.336	0.670	0.071	0.291	0.236	1.517	-0.054	-0.062	1.218	-0.352
	(0.16)	(0.96)	(1.46)	(0.16)	(1.41)	(1.90)*	(0.27)	(1.22)	(0.87)	(2.84)***	(0.20)	(0.28)	(2.78)***	(1.29)
10⁺ Conference Report	-0.013	0.503	0.247	0.711	0.626	0.370	0.834	0.136	-0.437	-0.677	-0.403	-0.650	-0.889	-0.615
	(0.05)	(1.40)	(0.51)	(2.04)**	(2.40)**	(0.96)	(2.92)***	(0.52)	(1.49)	(1.17)	(1.36)	(2.65)***	(1.88)*	(2.08)**
11⁻ President	0.647	0.453	0.382	0.509	-0.236	-0.307	-0.180	0.185	0.146	-0.503	0.316	-0.043	-0.693	0.126
	(2.11)**	(1.10)	(0.69)	(1.28)	(0.79)	(0.70)	(0.55)	(0.62)	(0.43)	(0.75)	(0.93)	(0.15)	(1.26)	(0.37)
12⁻ SEC Rule 302: no exemption	-0.223	-0.984	-0.792	-1.136	-0.923	-0.730	-1.074	-0.008	-0.343	-0.080	-0.446	-0.380	-0.117	-0.483
	(0.73)	(2.39)**	(1.42)	(2.85)***	(3.09)***	(1.66)*	(3.29)***	(0.03)	(1.01)	(0.12)	(1.30)	(1.34)	(0.21)	(1.41)
13⁺ Pitt suggests exemptions	0.309	0.481	0.303	0.628	0.209	0.031	0.356	0.400	0.022	-0.073	0.033	-0.427	-0.522	-0.417
	(1.30)	(1.51)	(0.70)	(2.03)**	(0.90)	(0.09)	(1.41)	(1.73)*	(0.09)	(0.14)	(0.12)	(1.95)*	(1.23)	(1.58)
14⁻ SEC rules 404, 406, 407 no exemptions	-0.148	-0.500	-0.096	-0.828	-0.427	-0.023	-0.755	-0.415	-0.578	-1.446	-0.425	-0.183	-1.051	-0.031
	(0.48)	(1.22)	(0.17)	(2.08)**	(1.43)	(0.05)	(2.32)**	(1.39)	(1.71)*	(2.17)**	(1.25)	(0.65)	(1.92)*	(0.09)
Portfolio: Level 1 & Rule 144a firms	1.101	1.263	1.353	1.193	0.196	0.287	0.127	1.159	1.069	1.509	0.945	-0.103	0.337	-0.227
	(42.49)	(36.37)	(28.75)	(35.49)	(7.81)	(7.72)	(4.60)	(56.05)	(45.52)	(32.60)	(40.00)	(5.24)	(8.88)	(9.60)
Number of observations	782	782	782	782	782	782	782	782	782	782	782	782	782	782
Adjusted R^2	0.7074	0.6377	0.5242	0.6264	0.0821	0.0747	0.0422	0.8059	0.7341	0.5847	0.6819	0.0381	0.1020	0.1053

Table 4, continued

Panel b. Condensed event dummy – all SOX events included	Equally-weighted portfolio returns							Value-weighted portfolio returns						
	(1) Exch listed firms	(2) All Dereg Firms	(3) Pre-Rule Dereg Firms	(4) Rule 12h-6 Dereg Firms	(5) Dereg – Exch	(6) Dereg – Exch	(7) Dereg – Exch	(8) Exch listed firms	(9) All Dereg Firms	(10) Pre-Rule Dereg Firms	(11) Rule 12h-6 Dereg Firms	(12) Dereg – Exch	(13) Dereg – Exch	(14) Dereg – Exch
Constant	-0.025	-0.098	-0.122	-0.080	-0.088	-0.112	-0.070	-0.048	-0.056	-0.137	-0.032	-0.009	-0.090	0.015
	(1.31)	(3.77)***	(3.46)***	(3.16)***	(4.68)***	(4.02)***	(3.38)***	(2.57)**	(2.64)***	(3.25)***	(1.49)	(0.51)	(2.59)***	(0.71)
All events dummy	-0.096	-0.249	-0.239	-0.258	-0.186	-0.175	-0.195	-0.019	0.038	0.167	0.005	0.065	0.194	0.032
	(1.25)	(2.42)**	(1.71)*	(2.58)**	(2.49)**	(1.59)	(2.37)**	(0.25)	(0.45)	(1.00)	(0.06)	(0.92)	(1.41)	(0.38)
Portfolio: Level 1 & Rule 144a firms	1.102	1.256	1.350	1.184	0.187	0.281	0.115	1.159	1.072	1.509	0.950	-0.099	0.338	-0.221
	(43.42)	(36.86)	(29.28)	(35.75)	(7.57)	(7.70)	(4.23)	(56.81)	(46.15)	(32.97)	(40.63)	(5.08)	(9.00)	(9.47)
Number of observations	782	782	782	782	782	782	782	782	782	782	782	782	782	782
Adjusted R^2	0.7070	0.6354	0.5233	0.6213	0.0727	0.0710	0.0267	0.8054	0.7318	0.5816	0.679	0.0312	0.093	0.1016
Panel c. Condensed event dummy – important SOX events only	(1) Exch listed firms	(2) All Dereg Firms	(3) Pre-Rule Dereg Firms	(4) Rule 12h-6 Dereg Firms	(5) Dereg – Exch	(6) Dereg – Exch	(7) Dereg – Exch	(8) Exch listed firms	(9) All Dereg Firms	(10) Pre-Rule Dereg Firms	(11) Rule 12h-6 Dereg Firms	(12) Dereg – Exch	(13) Dereg – Exch	(14) Dereg – Exch
Constant	-0.024	-0.099	-0.125	-0.080	-0.092	-0.117	-0.072	-0.046	-0.052	-0.136	-0.027	-0.007	-0.091	0.018
	(1.22)	(3.83)***	(3.55)***	(3.17)***	(4.87)***	(4.22)***	(3.49)***	(2.46)**	(2.46)**	(3.24)***	(1.27)	(0.40)	(2.63)***	(0.84)
Important SOX events dummy	-0.211	-0.328	-0.242	-0.397	-0.142	-0.056	-0.211	-0.113	-0.091	0.212	-0.172	0.024	0.328	-0.056
	(2.17)**	(2.50)**	(1.36)	(3.12)***	(1.48)	(0.40)	(2.01)**	(1.18)	(0.84)	(0.99)	(1.57)	(0.27)	(1.87)*	(0.51)
Portfolio: Level 1 & Rule 144a firms	1.100	1.253	1.347	1.181	0.186	0.280	0.113	1.158	1.070	1.511	0.947	-0.099	0.342	-0.223
	(43.42)	(36.77)	(29.20)	(35.70)	(7.49)	(7.66)	(4.15)	(56.65)	(45.98)	(32.94)	(40.48)	(5.09)	(9.08)	(9.51)
Number of observations	782	782	782	782	782	782	782	782	782	782	782	782	782	782
Adjusted R^2	0.7081	0.6356	0.5227	0.6228	0.0680	0.0681	0.0247	0.8057	0.7319	0.5816	0.6800	0.0302	0.0948	0.1018

Table 5. Stock-Price Reactions of Exchange-Listed Firms and Rule 12h-6 Deregistering Firms Around Rule 12h-6 Events.

The regression $R_{p,t} = \alpha + \beta \times R_{b,t} + \boldsymbol{\delta}' \mathbf{Event\_Dummy} + \varepsilon_t$, is estimated from Jan 1, 2005 – Dec 31, 2007. **Event_Dummy** is a vector that includes dummy variables for deregistration event dates from www.sec.gov. In (1) and (4), R_p is the daily U.S. dollar return on a portfolio that includes all non-U.S. firms cross-listed on U.S. exchanges. In (2) and (5), R_p is the return on a portfolio of firms that subsequently deregistered using Rule 12h-6 in 2007 or 2008. In (3) and (6), R_p is the difference in returns on the portfolio of deregistering firms and the portfolio of exchange-listed firms that did not deregister (denoted "Dereg – Exch"). R_b is the return on the benchmark portfolio that includes all non-U.S. firms listed in the U.S. via Level 1 or Rule 144a ADRs. Firms with less than 260 daily observations and firms with less than $10 million in total assets are excluded. In Panel a, coefficients are estimated for each dummy variable. In Panel b, a single dummy variable that equals one over all event days is defined. Coefficients on the constant and the event dummies are multiplied by 100. *t*-statistics are in parentheses. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

	Equally-weighted portfolio returns			Value-weighted portfolio returns		
Panel a. Individual deregistration event dummies	(1) All exchange-listed firms	(2) Deregistering firms	(3) Dereg – Exch	(4) All exchange-listed firms	(5) Deregistering firms	(6) Dereg – Exch
Constant	-0.029	-0.041	-0.012	-0.015	-0.001	0.016
	(2.05)**	(2.49)**	(0.75)	(1.35)	(0.06)	(1.25)
1 December 14, 2005	-0.053	-0.099	-0.038	-0.128	-0.078	0.058
	(0.24)	(0.38)	(0.15)	(0.72)	(0.31)	(0.29)
2 December 13, 2006	-0.028	0.034	0.076	0.145	0.200	0.059
	(0.12)	(0.13)	(0.29)	(0.82)	(0.80)	(0.29)
3 March 21, 2007	0.148	0.021	-0.136	0.140	0.019	-0.141
	(0.65)	(0.08)	(0.52)	(0.79)	(0.08)	(0.71)
Portfolio: Level 1 & Rule 144a firms	0.868	0.881	0.014	0.870	0.870	0.001
	(51.27)***	(45.37)***	(0.72)	(67.74)***	(48.15)***	(0.07)
Number of observations	780	780	780	780	780	780
Adjusted R^2	0.7722	0.726	-0.004	0.8555	0.7491	-0.0043
Panel b. Condensed event dummy	(1) All exchange-listed firms	(2) Deregistering firms	(3) Dereg – Exch	(4) All exchange-listed firms	(5) Deregistering firms	(6) Dereg – Exch
Constant	-0.029	-0.041	-0.012	-0.015	-0.001	0.016
	(2.06)**	(2.49)**	(0.75)	(1.35)	(0.06)	(1.26)
All events dummy	0.022	-0.015	-0.033	0.052	0.047	-0.008
	(0.17)	(0.10)	(0.22)	(0.51)	(0.33)	(0.07)
Portfolio: Level 1 & Rule 144a firms	0.868	0.881	0.014	0.870	0.870	0.000
	(51.44)***	(45.50)***	(0.70)	(67.88)***	(48.25)***	(0.03)
Number of observations	780	780	780	780	780	780
Adjusted R^2	0.7727	0.7266	-0.0019	0.8556	0.7495	-0.0026

Table 6. Stock-Price Reactions Around Deregistration Announcements.
This table shows the cumulative abnormal returns for firms that announced deregistration between 2002 and 2008. The sample includes 140 deregistering firms (67 firms prior to Rule 12h-6 and 73 firms after Rule 12h-6) with returns data in Datastream around the deregistration announcement. Six firms are excluded because they released other significant news on the same day they announced deregistration. Announcement dates are identified from Lexis Nexis searches, from SEC filings such as Form 6K, and for firms that deregistered under Rule 12h-6, from Form 15F. All returns are in U.S. dollars. Returns are adjusted with a market model. In Panel a, the benchmark portfolio includes all non-U.S. firms cross-listed in the U.S. via Level 1 or Rule 144a ADRs. In Panel b, the benchmark portfolio includes all non-U.S. cross-listed on U.S. exchanges that did not deregister. In both portfolios, firms are required to have at least 260 daily observations and $10 million in total assets. Market model parameters are estimated over the period from day -244 to -6. Cumulative abnormal returns (CARs) are computed over the three day window (-1, +1) around the announcement date. Significance of average CARs is based on *t*-statistics that account for cross-sectional dependence as in Brown and Warner (1985). The binomial test tests whether the percentage of negative CARs is different from 50% (*p*-value reported). *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively. #, ##, and ### indicate that the average CAR for Rule 12h-6 firms is significantly different from the average CAR for firms that deregistered prior to Rule 12h-6.

	Panel a. Level 1 and Rule 144a ADRs as benchmark firms		Panel b. Non-U.S. firms on U.S. exchanges as benchmark firms	
	EW benchmark portfolio	VW benchmark portfolio	EW benchmark portfolio	VW benchmark portfolio
All firms				
CAR	-1.26%	-1.18%	-1.11%	-1.18%
t-statistic	(2.89)***	(2.66)**	(2.47)**	(2.64)**
% negative	64%	64%	61%	60%
Binomial test (*p*-value)	0.001***	0.001***	0.006***	0.001***
Pre-Rule 12h-6 deregistering firms				
CAR	-2.15%	-2.01%	-1.94%	-1.92%
t-statistic	(2.53)**	(2.34)**	(2.26)**	(2.23)**
% negative	68%	65%	62%	62%
Binomial test (*p*-value)	0.003***	0.011**	0.038**	0.038**
Rule 12h-6 deregistering firms				
CAR	-0.48%#	-0.44%#	-0.38%#	-0.51%
t-statistic	(1.14)	(1.06)	(0.87)	(1.21)
% negative	61%	63%	61%	59%
Binomial test (*p*-value)	0.047**	0.016**	0.048**	0.077*

Table 7. Cross-Sectional Regressions of CARs Around Deregistration Announcement Dates.
This table presents cross-sectional regressions that examine the impact of firm and country characteristics on the stock-price reaction around firms deregistration announcement dates (-1,+1). Stock market reactions are estimated in Table 6. The sample includes 140 firms that deregistered from U.S. markets between 2002 and 2009. Six firms are excluded because they released other significant news on the same day they announced deregistration. The regressions include 119 firms (52 firms that deregistered prior to Rule 12h-6 and 67 firms that deregistered after Rule 12h-6) that have complete data on firm characteristics. Firm-level accounting data is from the Worldscope database. All variables are measured in the year prior to deregistration. Sales growth is inflation adjusted two-year sales growth (winsorized at 1% and 99% tails), Tobin's *q* is computed as ((Total Assets – Book Equity) + Market Value of Equity) / Total Assets (all variables are in local currency), global industry *q* is the median global industry *q*, the financing deficit is computed as the sum of cash dividends, investments, change in net working capital less internal cash flow, scaled by total assets (multiplied by 10 in the table for reporting purposes), total assets are in $ thousands, leverage is defined as total debt divided by total assets, ROA is the return on assets, and ownership is the data item "closely-held shares" from Worldscope. U.S. Trading % is the percentage of the total average daily trading volume (home market plus U.S. market) that takes place in the U.S. SOX cost is a dummy variable that equals one for 28 firms that mentioned compliance costs associated with SOX as motivation for the deregistration decision in press releases. Legal is anti-director × rule of law, from Djankov et al. (2008) and La Porta et al. (1998). Log of GNP per capita ($) and stock market capitalization to GDP are from the World Bank WDI Database. *t*-statistics are in parentheses. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

	Panel a. Level 1 OTC/Rule 144a Firms as Equally-Weighted Benchmark Portfolio				Panel b. Exchange-Listed Firms as Value-Weighted Benchmark Portfolio			
	Model 1	Model 2	Model 3	Model 4	Model 1	Model 2	Model 3	Model 4
Constant	-0.1839	-0.1816	-0.0354	-0.2201	-0.1938	-0.2061	-0.0526	-0.2590
	(2.07)**	(1.88)*	(0.23)	(1.58)	(2.25)**	(2.21)**	(0.36)	(1.92)*
Sales growth	-0.0017	-0.0017	0.0038	-0.0505	-0.0000	0.0002	0.0011	-0.0416
	(0.10)	(0.11)	(0.18)	(1.75)*	(0.00)	(0.01)	(0.05)	(1.48)
Tobin's *q*	0.0009	0.0009	-0.0061	0.0071	0.0030	0.0031	-0.0034	0.0081
	(0.16)	(0.16)	(0.80)	(0.85)	(0.55)	(0.57)	(0.47)	(1.00)
Global industry *q*	-0.0048	-0.0050	0.0024	-0.0131	-0.0041	-0.0034	-0.0024	-0.0082
	(0.29)	(0.29)	(0.08)	(0.63)	(0.26)	(0.21)	(0.09)	(0.41)
Financing deficit	-0.1437	-0.1437	-0.1563	-0.0390	-0.1435	-0.1437	-0.1611	-0.0561
	(4.24)***	(4.22)***	(3.61)***	(0.61)	(4.36)***	(4.35)***	(3.92)***	(0.90)
Log(Assets)	0.0020	0.0020	0.0008	0.0033	0.0027	0.0029	0.0018	0.0042
	(0.94)	(0.87)	(0.20)	(1.11)	(1.27)	(1.31)	(0.52)	(1.45)
Leverage	0.0388	0.0387	-0.0003	0.0399	0.0393	0.0400	-0.0025	0.0491
	(1.75)*	(1.73)*	(0.01)	(1.29)	(1.83)*	(1.85)*	(0.08)	(1.64)
ROA	0.0094	0.0091	0.028	-0.0351	-0.0034	-0.0020	-0.0065	-0.0094
	(0.34)	(0.32)	(0.65)	(0.80)	(0.12)	(0.07)	(0.16)	(0.22)
Ownership	-0.0013	-0.0011	-0.0040	-0.0160	-0.0003	-0.0014	-0.0043	-0.0136
	(0.07)	(0.06)	(0.14)	(0.55)	(0.02)	(0.08)	(0.16)	(0.49)
U.S. trading %	0.0266	0.0265	-0.0317	0.0420	0.0387	0.0389	-0.0190	0.0550
	(0.72)	(0.71)	(0.67)	(0.59)	(1.08)	(1.08)	(0.42)	(0.79)
SOX cost dummy	-0.0033	-0.0034	-0.0123	0.0002	-0.0038	-0.0033	-0.0105	-0.0010
	(0.34)	(0.35)	(0.62)	(0.01)	(0.42)	(0.36)	(0.55)	(0.09)
Legal	-0.0005	-0.0005	-0.0017	0.0005	-0.0005	-0.0005	-0.0020	0.0006
	(0.99)	(0.93)	(2.20)**	(0.75)	(1.06)	(1.11)	(2.72)***	(0.94)
Stock market cap / GDP	-0.0005	-0.0005	0.0012	-0.0001	-0.0010	-0.0005	0.0022	0.0004
	(0.06)	(0.07)	(0.06)	(0.01)	(0.14)	(0.07)	(0.12)	(0.05)
Log(GNP)	0.0152	0.0150	0.0078	0.0146	0.0149	0.0159	0.0091	0.0153
	(1.79)*	(1.66)*	(0.54)	(1.11)	(1.82)*	(1.82)*	(0.67)	(1.20)
Rule 12h-6 dummy		0.0007				-0.0035		
		(0.06)				(0.35)		
Number of Observations	123	123	55	68	123	123	55	68
Adjusted R^2	0.1365	0.1285	0.3054	0.0441	0.1366	0.1296	0.3192	0.0824

Figure 1. Deregistration Activity Over Time.
This figure shows the number of voluntary deregistrations from 2002 through 2008 that are included in the sample. There are 71 firms that deregistered between 2002 and March 2007 prior to Rule 12h-6. There are 73 firms that deregistered using Rule 12h-6 between March 21, 2007 and December 31 30, 2008. See Appendices A and B for full details.

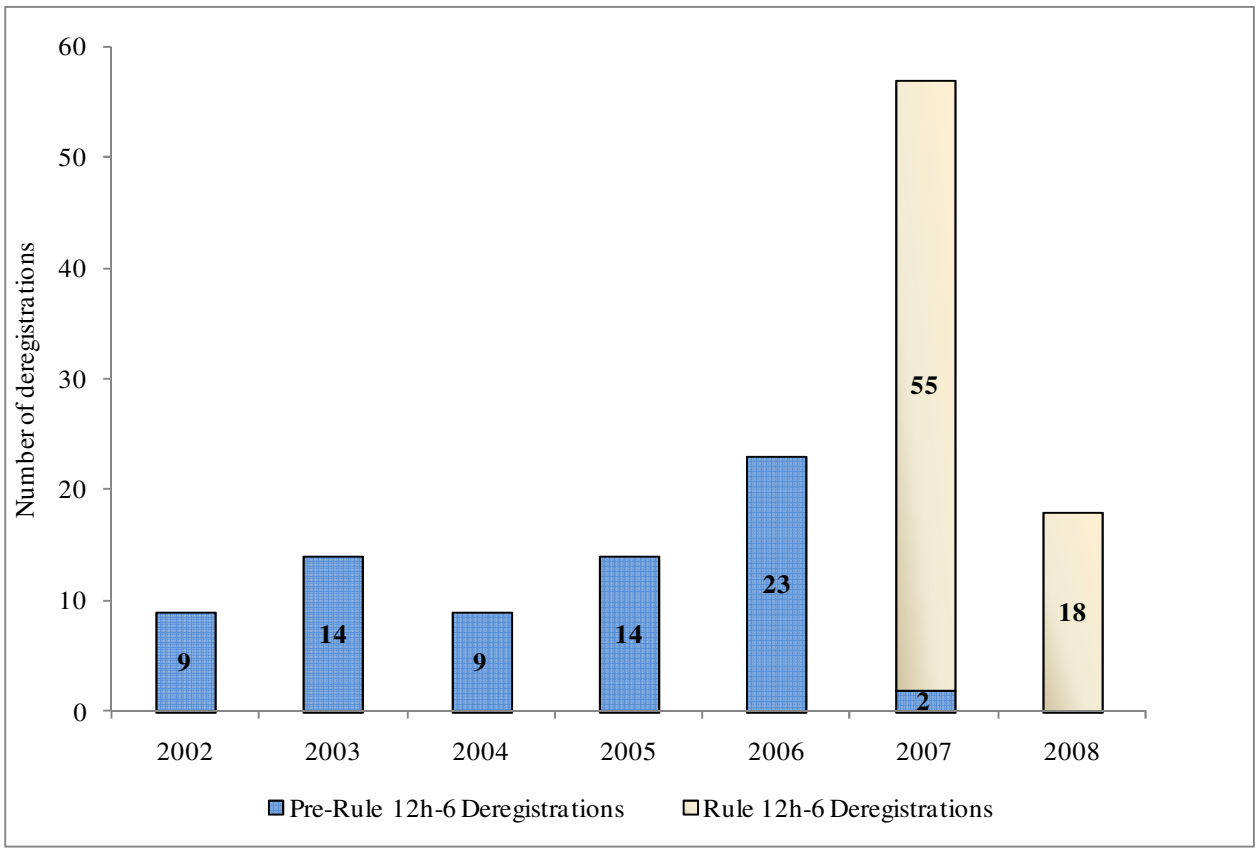
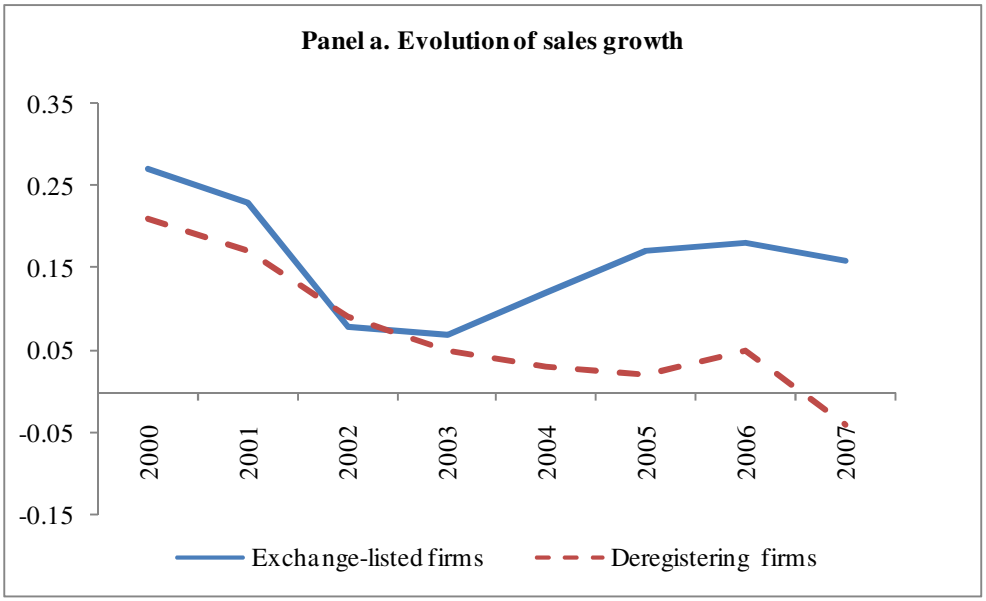
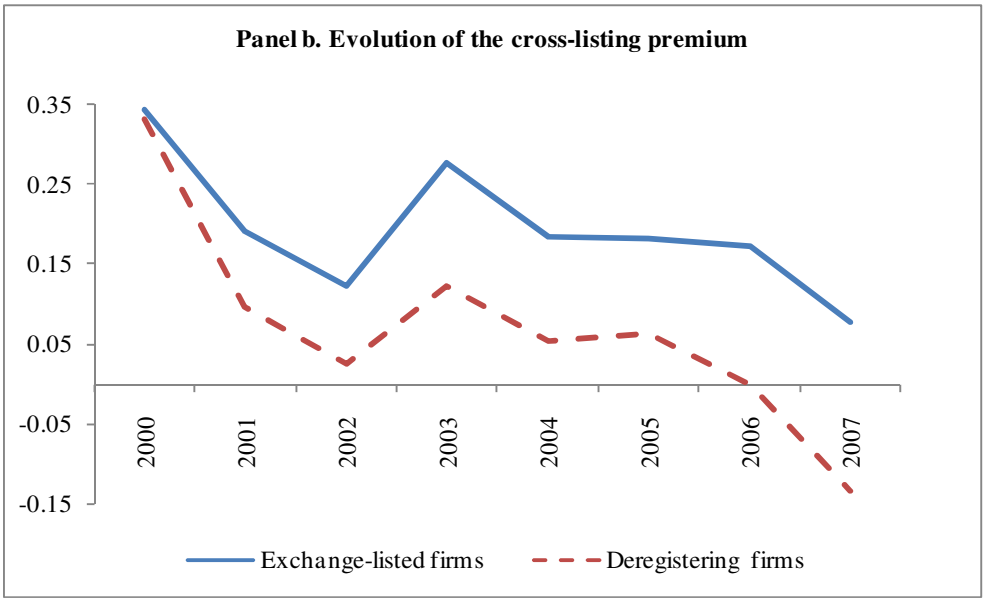


Figure 2. The Evolution of Sales Growth and the Cross-listing Premium.
In Panel a, the figure shows average sales growth each year from 2000 – 2007 for exchange-listed firms and for the sample of 73 firms that deregistered from U.S. markets using Rule 12h-6. For each sample, each year, sales growth is inflation adjusted two-year sales growth (winsorized at 1% and 99% tails). Panel b shows the estimated coefficients for δ_3 and δ_4 from the regression, $q_i = \alpha + \delta_1 \times \text{Rule 144a}_i + \delta_2 \times \text{OTC}_i + \delta_3 \times \text{Exchange-listed}_i + \delta_4 \times \text{Deregister}_i$ + control variables, which is estimated each year from 2000 – 2007. Tobin's q is computed as ((Total Assets – Book Equity) + Market Value of Equity) / Total Assets (all variables are in local currency). Exchange-listed is a dummy variable that equals one for firms listed on a major U.S. exchange in a given year and did not deregister. Deregister is a dummy that equals one for the exchange-listed firms that deregistered from U.S. markets. The sample includes non-financial firms in the Worldscope database with total assets of at least $100 million in a given year. Between 2000 and 2007, the sample size for the exchange-listed firms ranges from 395 to 444; the sample size for the deregistering listed firms ranges from 47 to 62 between 2000 and 2006 and is 14 in 2007.





Appendix A. Sample of Deregistering Firms.

This appendix provides the list of 144 non-U.S. firms that voluntarily delisted and deregistered between 2002 and 2008. There are 71 firms that deregistered prior to Rule 12h-6 and 73 firms that deregistered using Rule 12h-6. The sample includes firms that listed equity securities on major U.S. exchanges. Firms that delisted prior to Sarbanes-Oxley and firms that delisted more than two years prior to deregistration are excluded.

Company name	Deregistration form type	Filing date	Announcement date	Country of domicile	Home trading market
Pre-Rule 12h-6 deregistering firms					
Alliance Atlantis Communications Inc	15-12G	9/26/2006	9/26/2006	Canada	Toronto Stock Exchange
AT Plastics Inc	15-15D	5/30/2002	5/3/2002	Canada	Toronto Stock Exchange
Autonomy Corp PLC	15-12G	4/29/2005	4/29/2005	U.K.	London Stock Exchange
Banco Comercial Portugues SA	15-12G	10/16/2003	10/16/2003	Portugal	Euronext Lisbon
Banco Totta & Acores SA	15-12B	11/21/2003	11/21/2003	Portugal	Euronext Lisbon
Baran Group Ltd	15-12G	7/9/2004	6/25/2004	Israel	Tel Aviv Stock Exchange
Biacore International AB	15-12G	12/29/2004	12/29/2004	Sweden	Stockholm Stock Exchange
Cable & Wireless PLC	15-12B	6/9/2006	9/19/2005	U.K.	London Stock Exchange
Certicom Corp	15-12G	6/18/2002	6/12/2002	Canada	Toronto Stock Exchange
Colt Telecom Group PLC	15-12G	6/19/2006	2/3/2006	U.K.	London Stock Exchange
Completel Europe NV	15-12G	10/17/2003	5/27/2002	Netherlands	Euronext Paris
Controladora Comercial Mexicana SA de CV	15-15D	12/8/2006	10/20/2006	Mexico	Mexican Stock Exchange
Cristalerias de Chile SA (Glassworks of Chile)	15-12B	7/15/2005	4/19/2005	Chile	Santiago Stock Exchange
Datalex PLC	15-12G	8/2/2002	4/15/2002	Ireland	Irish Stock Exchange
Datamirror Corp	15-12G	3/1/2006	11/1/2005	Canada	Toronto Stock Exchange
Desc SA de CV	15-12B	1/6/2005	10/20/2004	Mexico	Mexican Stock Exchange
Dialog Semiconductor PLC	15-12G	2/7/2007	11/1/2006	Germany	Frankfurt Stock Exchange
E Machitown Co Ltd (formerly Crayfish Co)	15-12G	5/23/2005	8/22/2003	Japan	Mothers Market (Tokyo Stock Exchange)
Eimo OYJ	15-12G	12/13/2002	12/13/2002	Finland	Helsinki Stock Exchange
Elamex SA de CV	15-12G	1/30/2006	1/27/2006	Mexico	None
Enodis PLC (formerly Berisford)	15-12B	8/2/2005	5/16/2005	U.K.	London Stock Exchange
Espirito Santo Financial Group SA	15-15D	5/25/2006	4/28/2006	Luxembourg	Euronext Lisbon
Esprit Energy Trust (formerly Esprit Exploration; Canadian 88 Energy)	15-12B	9/23/2002	9/20/2002	Canada	Toronto Stock Exchange
Fisher & Paykel Healthcare Corp Ltd (formerly Fisher & Paykel Industries)	15-12G	2/28/2003	12/5/2002	New Zealand	New Zealand Stock Exchange
Fletcher Building Ltd (formerly Fletcher Challenge Building)	15-12B	12/17/2002	12/17/2002	New Zealand	New Zealand Stock Exchange
FNX Mining Company Inc (formerly Fort Knox Gold Resources)	15-12B	6/14/2006	5/23/2006	Canada	Toronto Stock Exchange
Group Iusacell SA de CV	15-15D	9/14/2006	9/14/2006	Mexico	Mexican Stock Exchange
Grupo Elektra SA de CV	15-15D	9/14/2006	9/14/2006	Mexico	Mexican Stock Exchange
Grupo Imsa SA de CV	15-12B	6/28/2006	2/10/2005	Mexico	Mexican Stock Exchange
Hot Cable Systems Media Ltd (formerly Matav-Cable Systems Media)	15-12G	6/30/2006	2/24/2005	Israel	Tel Aviv Stock Exchange
Group Iusacell SA de CV	15-15D	9/14/2006	9/14/2006	Mexico	Mexican Stock Exchange
Icos Vision Systems Corp NV	15-12G	11/6/2006	10/26/2006	Belgium	Euronext Brussels
IFCO Systems NV	15-12G	3/8/2004	3/8/2004	Netherlands	Frankfurt Stock Exchange
Incam AG	15-12G	7/11/2003	7/11/2003	Germany	OTC (Berliner Freiverkehr)

Appendix A, continued.

Company name	Deregistration form type	Filing date	Announcement date	Country of domicile	Home trading market
Inficon Holding AG	15-12G	9/8/2005	9/8/2005	Switzerland	SWX Swiss Exchange
Internacional de Ceramica SA de CV	15-15D	2/2/2005	9/8/2004	Mexico	Mexican Stock Exchange
Intershop Communications AG	15-12G	3/26/2004	10/30/2003	Germany	Frankfurt Stock Exchange
ITO-Yokado Co Ltd	15-12G	4/6/2004	4/9/2003	Japan	Tokyo Stock Exchange
Lastminute.com PLC	15-12G	11/24/2004	7/15/2004	U.K.	London Stock Exchange
Leitch Technology Corp	15-12G	6/27/2005	6/27/2005	Canada	Toronto Stock Exchange
LVMH Moet Hennessy Louis Vuitton	15-15D	3/8/2004	3/8/2004	France	Euronext Paris
Metro International SA	15-12G	12/23/2003	12/11/2003	Luxembourg	Stockholm Stock Exchange
Mintails (formerly Gaming and Entertainment Group; Trans Global	15-12G	3/3/2003	3/3/2003	Australia	Australian Stock Exchange
Mitchells & Butlers PLC	15-12B	8/24/2006	4/13/2005	U.K.	London Stock Exchange
Modern Times Group MTG AB	15-15D	12/23/2003	12/17/2003	Sweden	Stockholm Stock Exchange
Pioneer Corp (formerly Pioneer Electronic)	15-12B	12/18/2006	12/18/2006	Japan	Tokyo Stock Exchange
Premier Farnell PLC (formerly Farnell Electronics)	15-12B	7/1/2005	12/9/2004	U.K.	London Stock Exchange
Provalis PLC (formerly Cortecs)	15-15D	12/15/2005	2/24/2005	U.K.	London Stock Exchange
QSC AG	15-12G	5/13/2003	5/13/2003	Germany	Frankfurt Stock Exchange
Rank Group PLC	15-12G	4/6/2006	7/1/2005	U.K.	London Stock Exchange
Regus Group PLC	15-12G	5/17/2004	11/6/2002	U.K.	London Stock Exchange
Riverdeep Group PLC	15-12G	10/16/2002	10/17/2002	Ireland	Irish Stock Exchange
Robogroup TEK Ltd (formerly Eshed Robotec 1982)	15-12G	9/8/2005	8/4/2005	Israel	Tel Aviv Stock Exchange
RSA Insurance Group PLC (formerly Royal & Sun Alliance Group)	15-15D	1/8/2007	9/28/2006	U.K.	London Stock Exchange
SAES Getters SPA	15-12G	5/8/2003	5/8/2003	Italy	Italian Stock Exchange
Scania AB	15-15D	1/29/2003	1/29/2003	Sweden	Stockholm Stock Exchange
Song Networks Holding AB (formerly Tele1 Europe Holding)	15-12G	6/30/2003	6/30/2003	Sweden	Stockholm Stock Exchange
SYGNIS Pharma AG (formerly Lion Bioscience)	15-12G	5/19/2005	8/5/2004	Germany	Frankfurt Stock Exchange
Tatneft OAO	15-12B	12/15/2006	6/27/2006	Russia	London Stock Exchange
Tele2 AB (formerly Netcom AB)	15-12G	6/29/2006	6/30/2006	Sweden	Stockholm Stock Exchange
Telent PLC (formerly Marconi Corp)	15-12G	9/14/2006	10/25/2005	U.K.	London Stock Exchange
Tenon Ltd (formerly Fletcher Challenge Forests)	15-12G	6/9/2005	6/10/2005	New Zealand	New Zealand Stock Exchange
Toll NZ Ltd (formerly Tranz Rail Holdings)	15-12G	10/28/2002	10/25/2002	New Zealand	Australian Stock Exchange
Trader Classified Media NV (formerly Trader.com)	15-12G	12/19/2002	12/18/2002	Netherlands	Euronext Paris
Tradus (formerly QXL Ricardo PLC)	15-12G	3/31/2003	2/26/2003	U.K.	London Stock Exchange
Transcom Worldwide SA	15-12G	5/28/2003	5/14/2003	Luxembourg	Stockholm Stock Exchange
Transgene SA	15-15D	4/3/2006	10/12/2005	France	Euronext Paris
TV Azteca SA de CV	15-15D	9/14/2006	9/14/2006	Mexico	Mexican Stock Exchange
United Business Media PLC (formerly United News and Media)	15-12G	2/2/2006	12/22/2004	U.K.	London Stock Exchange
Vero Software PLC (formerly VI Group)	15-12G	5/12/2004	5/12/2004	U.K.	London Stock Exchange
Vivendi SA (formerly Vivendi Universal)	15-12B	10/31/2006	1/17/2006	France	Euronext Paris
Wescast Industries Inc	15-12G	7/1/2005	6/16/2005	Canada	Toronto Stock Exchange

Appendix A, continued.

Company name	Deregistration form type	Filing date	Announcement date	Country of domicile	Home trading market
Rule 12h-6 deregistering firms					
Acambis PLC (formerly Peptide Therapeutics)	15F-12G	6/7/2007	9/13/2006	U.K.	London Stock Exchange
Air France-KLM	15F-12B	2/7/2008	11/22/2007	France	Euronext Paris
Akzo Nobel NV	15F-12G	9/28/2007	7/24/2007	Netherlands	Euronext Amsterdam
Altana	15F-12G	6/21/2007	4/26/2007	Germany	Frankfurt Stock Exchange
Amcor Ltd	15F-12G	6/4/2007	5/2/2007	Australia	Australian Stock Exchange
Ansell Ltd	15F-12G	6/5/2007	5/4/2006	Australia	Australian Stock Exchange
Arcadis NV (formerly Heidemij NV)	15F-12G	6/9/2008	5/16/2007	Netherlands	Euronext Amsterdam
Atlas South Sea Pearl LTD (formerly Atlas Pacific)	15F-12G	6/30/2008	7/11/2007	Australia	Australian Stock Exchange
Australia & New Zealand Banking Group Ltd	15F-12G	7/13/2007	6/20/2007	Australia	Australian Stock Exchange
BASF AG	15F-12B	9/6/2007	7/30/2007	Germany	Frankfurt Stock Exchange
Bayer AG	15F-12B	9/28/2007	9/5/2007	Germany	Frankfurt Stock Exchange
Benetton Group SPA	15F-12B	10/22/2007	9/12/2007	Italy	Italian Stock Exchange
BG Group PLC	15F-12B	9/21/2007	7/25/2007	U.K.	London Stock Exchange
British Airways PLC	15F-12B	6/5/2007	4/25/2007	U.K.	London Stock Exchange
Bunzl PLC	15F-12B	6/6/2007	5/1/2007	U.K.	London Stock Exchange
Canwest Global Communications Corp	15F-12B	6/13/2007	5/11/2007	Canada	Toronto Stock Exchange
Dassault Systemes SA	15F-12G	10/16/2008	7/31/2008	France	Euronext Paris
Dorel Industries Inc	15F-12G	4/1/2008	4/1/2008	Canada	Toronto Stock Exchange
Ducati Motor Holding SPA	15F-12B	6/4/2007	5/14/2007	Italy	Italian Stock Exchange
E On AG	15F-12B	9/10/2007	8/21/2007	Germany	Frankfurt Stock Exchange
EDP Energias De Portugal SA	15F-12B	6/7/2007	5/18/2007	Portugal	Euronext Lisbon
Enel SPA	15F-12B	12/20/2007	11/29/2007	Italy	Italian Stock Exchange
EPCOS AG	15F-15D	11/30/2007	11/8/2007	Germany	Frankfurt Stock Exchange
Extendicare REIT (formerly Extendicare Inc)	15F-12B	6/4/2007	6/4/2007	Canada	Toronto Stock Exchange
Fiat SPA	15F-12B	8/3/2007	8/3/2007	Italy	Italian Stock Exchange
Genesys SA	15F-12B	6/4/2007	5/10/2007	France	Euronext Paris
Groupe Danone	15F-12B	7/5/2007	4/26/2007	France	Euronext Paris
Hanaro Telecom Inc	15F-12B	6/28/2007	2/22/2006	Korea	Korea Securities Dealers (KOSDAQ)
Imperial Tobacco Group PLC	15F-12B	9/12/2008	7/24/2008	U.K.	London Stock Exchange
Infovista SA	15F-12G	6/25/2007	6/25/2007	France	Euronext Paris
International Power PLC (formerly National Power)	15F-12B	6/28/2007	6/6/2007	U.K.	London Stock Exchange
Koor Industries Ltd	15F-12B	2/11/2008	5/14/2007	Israel	Tel Aviv Stock Exchange
KPN NV (Royal KPN)	15F-12B	4/4/2008	12/17/2007	Netherlands	Euronext Amsterdam
Lafarge	15F-12B	9/24/2007	8/2/2007	France	Euronext Paris
LMS Medical Systems Inc	15F-12B	6/6/2008	6/4/2008	Canada	Toronto Stock Exchange
Macronix International Ltd	15F-12G	10/29/2007	9/21/2007	Taiwan	Taiwan Stock Exchange

Appendix A, continued.

Company name	Deregistration form type	Filing date	Announcement date	Country of domicile	Home trading market
MASISA SA (formerly Terranova)	15F-12B	3/13/2008	2/20/2008	Chile	Santiago Stock Exchange
Meldex International PLC (formerly Bioprogress)	15F-12G	6/18/2007	5/29/2007	U.K.	AIM (London Stock Exchange)
Metso Corp (formerlyValmet-Rauma)	15F-12B	9/17/2007	7/26/2007	Finland	OMX Nordic Exchange
Millea Holdings Inc (formerly (Tokyo Marine and Fire)	15F-12G	7/30/2007	7/5/2007	Japan	Tokyo Stock Exchange
Mirae Corporation	15F-12G	5/20/2008	3/7/2008	Korea	Korea Exchange (KRX)
Naspers Ltd	15F-15D	6/8/2007	5/17/2007	South Africa	Johannesburg Stock Exchange
National Australia Bank Ltd	15F-12B	6/21/2007	5/10/2007	Australia	Australian Stock Exchange
National Telephone Co of Venezuela (CANTV)	15F-12B	6/30/2008	5/17/2007	Venezuela	Caracas Stock Exchange
NIS Group (formerly Nissin Company)	15F-12G	8/8/2008	7/14/2008	Japan	Tokyo Stock Exchange
Norsk Hydro ASA	15F-12B	11/29/2007	10/22/2007	Norway	Oslo Stock Exchange
Oce NV (formerly Oce Van Der Grinten)	15F-12G	6/29/2007	6/29/2007	Netherlands	Euronext Amsterdam
PCCW Ltd (formerly Pacific Century Cyberworks)	15F-12B	6/4/2007	4/27/2007	Hong Kong	Hong Kong Stock Exchange
Petroleum Geo Services	15F-12B	7/20/2007	6/26/2007	Norway	Oslo Stock Exchange
Pfeiffer Vacuum Technology AG	15F-12B	10/4/2007	8/30/2007	Germany	Frankfurt Stock Exchange
Publicis Groupe SA	15F-12B	9/7/2007	9/7/2007	France	Euronext Paris
Rhodia	15F-12B	9/28/2007	7/31/2007	France	Euronext Paris
Royal Ahold NV	15F-12B	9/28/2007	8/29/2007	Netherlands	Euronext Amsterdam
SCOR	15F-12B	6/4/2007	4/3/2007	France	Euronext Paris
SGL Carbon AG	15F-12B	6/26/2008	3/26/2007	Germany	Frankfurt Stock Exchange
Skyepharma PLC	15F-12G	6/4/2007	5/3/2007	U.K.	London Stock Exchange
Sodexho Alliance SA	15F-12B	7/16/2007	5/30/2007	France	Euronext Paris
Spirent Communications PLC	15F-12B	6/5/2007	3/1/2007	U.K.	London Stock Exchange
Stolt Nielsen SA	15F-12G	5/28/2008	5/28/2008	U.K.	Oslo Stock Exchange
Stora Enso Corp	15F-12B	1/7/2008	12/6/2007	Finland	OMX Nordic Exchange
Suez (formerly Suez Lyonnaise Des Eaux)	15F-12B	9/21/2007	8/29/2007	France	Euronext Paris
Technip	15F-12B	8/6/2007	7/25/2007	France	Euronext Paris
Telekom Austria AG	15F-12B	6/5/2007	4/24/2007	Austria	Vienna Stock Exchange
Telenor ASA	15F-12G	6/12/2007	5/22/2007	Norway	Oslo Stock Exchange
Telstra Corp Ltd	15F-12B	6/4/2007	3/28/2007	Netherlands	Euronext Amsterdam
TNT NV (formerly TPG NV)	15F-12B	6/18/2007	5/29/2007	Netherlands	Euronext Amsterdam
Trend Micro Inc	15F-12G	6/27/2007	4/26/2007	Japan	Tokyo Stock Exchange
United Utilities PLC	15F-12B	6/25/2007	5/30/2007	U.K.	London Stock Exchange
UPM Kymmene Corp	15F-12B	12/6/2007	10/30/2007	Finland	OMX Nordic Exchange
Vernalis PLC (formerly British Biotech)	15F-12G	6/4/2007	4/24/2007	U.K.	London Stock Exchange
Volvo AB	15F-12G	12/13/2007	6/14/2007	Sweden	Stockholm Stock Exchange
Westaim Corp	15F-12G	10/21/2008	10/20/2008	Canada	Toronto Stock Exchange
Wolseley PLC	15F-12B	1/2/2008	12/11/2007	U.K.	London Stock Exchange

Appendix B. Firms Excluded From the Final Sample.
This appendix provides the list of 163 non-U.S. firms that deregistered with the SEC. We exclude 35 firms that deregistered prior to Rule 12h-6 and 128 firms that deregistered after Rule 12h-6.

Excluded firms	Reason for exclusion
Pre-Rule 12h-6 period	
Baltimore PLC (formerly Baltimore Technologies)	Deregistered after SOX, but delisted prior to SOX; deregistered more than two years after delisting
Cinram Income Fund (formerly Cinram International)	Deregistered after SOX, but delisted prior to SOX; deregistered more than two years after delisting
Quebecor Inc	Deregistered after SOX, but delisted prior to SOX; deregistered more than two years after delisting
Hilan Tech Ltd (formerly Teleweb Telegraph Comm)	Deregistered after SOX, but delisted prior to SOX; deregistered more than two years after delisting; not in Worldscope
SKF Inc	Delisted in 2003, but deregistered under Rule 12h-6
Swedish Match Corp	Delisted in 2004, but deregistered under Rule 12h-6
Telefonica Del Peru SAA	Delisted in 2004, but deregistered under Rule 12h-6
Teliasonera AB	Delisted in 2004, but deregistered under Rule 12h-6
Electrolux AB	Delisted in 2005, but deregistered under Rule 12h-6
Nera ASA	Deregistered more than two years after delisting
Virgin Express Holdings PLC	Deregistered more than two years after delisting
Carmel Container Systems	Not in Worldscope
Aegis Group PLC	Voluntarily delisted and deregistered prior to SOX
Docdata NV	Voluntarily delisted and deregistered prior to SOX
Ecsoft Group PLC	Voluntarily delisted and deregistered prior to SOX
EPI Holdings (formerly Great Wall Cybertech / Electronic)	Voluntarily delisted and deregistered prior to SOX
Grupo Movil Access SA de CV (formerly BIPER)	Voluntarily delisted and deregistered prior to SOX
Israel Land Development Company Ltd	Voluntarily delisted and deregistered prior to SOX
Mid-States PLC	Voluntarily delisted and deregistered prior to SOX
Premium Brands Inc (formerly Fletcher Fine Foods)	Voluntarily delisted and deregistered prior to SOX
Sky Network Television Ltd	Voluntarily delisted and deregistered prior to SOX
Svenska Cellulosa Aktiebolaget (SCA)	Voluntarily delisted and deregistered prior to SOX
Virgin Group PLC	Voluntarily delisted and deregistered prior to SOX
Norcen Energy Resources Ltd	Voluntarily delisted in 1994; acquired by Union Pacific Resources Inc in 1998 and subsequently deregistered the securities
English China Clays PLC (formerly ECC Group)	Voluntarily delisted in 1997; press release states it applied to the SEC to deregister its ordinary shares; we cannot find a Form 15 on Edgar or Thomson Research to verify deregistration; acquired by Imetal (now Imerys) in 1999
Nord Pacific Ltd	Voluntarily delisted in 1998; acquired by Allied Gold in 2004 and subsequently deregistered the securities
Rigel Energy Corp (formerly Total Canada Oil & Gas)	Voluntarily delisted in 1998; acquired by Talisman in 1999 and subsequently deregistered the securities
Ramco Energy PLC	Voluntarily delisted in 2000 and does not file anymore; we cannot find a Form 15 on Edgar or Thomson Research to verify deregistration
Russel Metals Inc (formerly Federal Industries)	Voluntarily delisted in 2000 and said it would deregister 90 days later, but we cannot find a Form 15 on Edgar or on Thomson Research to verify deregistration; continued filing with the SEC in connection with U.S. registered senior notes until it deregistered them in 2007
Interactive Investor International PLC (formerly III)	Voluntarily delisted in 2001; was acquired by AMP later in 2001 and subsequently deregistered the securities

Appendix B, continued.

Excluded firms	Reason for exclusion
Electrochemical Industries (1952) Ltd (formerly Electrochem Industries Frutarom)	Voluntarily delisted in 2002; we cannot find a Form 15 on Edgar or on Thomson Research to verify deregistration; in 2004, three Israeli banks filed for Electrochemical Industries to be placed in receivership
Liquidation World Inc	Voluntarily delisted in 2003 and does not file anymore; we cannot find a Form 15 on Edgar or Thomson Research to verify deregistration
Boadwalk Real REIT (formerly Boardwalk Equities)	Voluntarily delisted in 2004 and does not file anymore; we cannot find a Form 15 on Edgar or Thomson Research to verify deregistration
CSK Corp (formerly CSK Holdings)	Voluntarily delisted in 2005 and does not file anymore; we cannot find a Form 15 on Edgar or Thomson Research to verify deregistration
Kirin Brewery Company Ltd	Voluntarily delisted in 2006 and does not file anymore; we cannot find a Form 15 on Edgar or Thomson Research to verify deregistration
<u>Rule 12h-6 period</u>	
ASE Test Ltd	Acquired by ASE Inc and deregistered as a result of the takeover
Arizona Star Resource Corp	Acquired by Barrick Gold and deregistered as a result of the takeover
Bayer Schering Pharma AG	Acquired by Bayer and deregistered as a result of the takeover
Xenova Group PLC	Acquired by Celtic Pharma Development and deregistered as a result of the takeover
QUILMES Industrial SA	Acquired by Companhia de Bebidas das Americas (AmBev) (now Anheuser-Busch InBev) and deregistered as a result of the takeover
Northern Peru Copper Corp	Acquired by Copper Bridge Acquisition Corp and deregistered as a result of the takeover
Hawthorne Gold Corp	Acquired by Cusac Gold Mines Ltd and deregistered as a result of the takeover
Inco Ltd	Acquired by CVRD and deregistered as a result of the takeover
Pacific Asia China Energy Inc	Acquired by GREKA China Ltd and GREKA Acquisitions Ltd and deregistered as a result of the takeover
Hanson Building Materials PLC (formerly Hanson)	Acquired by HeidelbergCement AG and deregistered as a result of the takeover
Novatel Inc	Acquired by Hexagon Canada Acquisition Inc and deregistered as a result of the takeover
Scottish Power PLC	Acquired by Iberdrola and deregistered as a result of the takeover; also deregistered debt securities
Tyler Resources Inc	Acquired by Jinchuan Group and deregistered as a result of the takeover
Merck Serono SA	Acquired by Merck KGaA and deregistered as a result of the takeover
TDC A/S	Acquired by Nordic Telephone Company and deregistered as a result of the takeover
CDG Investments Inc	Acquired by Preo Software and deregistered as a result of the takeover
Fortel Inc	Acquired by QuStream and deregistered as a result of the takeover
Action Energy Inc	Acquired by Rolling Thunder and deregistered as a result of the takeover
SCOR Holding Ltd (formerly Converium Holding)	Acquired by SCOR and deregistered as a result of the takeover
Corporate Express NV	Acquired by Staples and deregistered as a result of the takeover
ECI Telecom Ltd	Acquired by Swarth Group and deregistered as a result of the takeover
Novamerican Steel Inc	Acquired by Symmetry Holdings Inc and deregistered as a result of the takeover
Embratel Participacoes SA	Acquired by Telefonos de Mexico and deregistered as a result of the takeover
Protherics PLC	Acquired by Therapeutic Antibodies Inc and deregistered as a result of the takeover
Breakwater Resources Ltd	Delisted by Nasdaq for violating listing standards; moved to the OTC market and subsequently deregistered
SR Telecom Inc	Delisted by Nasdaq for violating listing standards; moved to the OTC market and subsequently deregistered
Petsec Energy Ltd	Delisted by the NYSE for violating listing standards; moved to the OTC market and subsequently deregistered
Unimarc Supermarkets Inc	Delisted by the NYSE for violating listing standards; moved to the OTC market and subsequently deregistered

Appendix B, continued.

Excluded firms	Reason for exclusion
Alstom	Delisted by the NYSE for violating listing standards; previously filed form 15 and deregistered the subject securities
British Energy Group PLC	Delisted by the NYSE for violating listing standards; previously filed form 15 and deregistered the subject securities
Electrolux AB	Deregistered under Rule 12h-6, but delisted prior to Rule 12h-6 period; delisted more than two years before deregistration
SKF Inc	Deregistered under Rule 12h-6, but delisted prior to Rule 12h-6 period; delisted more than two years before deregistration
Swedish Match Corp	Deregistered under Rule 12h-6, but delisted prior to Rule 12h-6 period; delisted more than two years before deregistration
Telefonica Del Peru SAA	Deregistered under Rule 12h-6, but delisted prior to Rule 12h-6 period; delisted more than two years before deregistration
Teliasonera AB	Deregistered under Rule 12h-6, but delisted prior to Rule 12h-6 period; delisted more than two years before deregistration
Aerco Ltd	Deregistering debt securities only
AES Gener Inc	Deregistering debt securities only
Ainsworth Lumber Co Ltd	Deregistering debt securities only
Aurelia Energy NV	Deregistering debt securities only
BELL Canada	Deregistering debt securities only
Camboriu Cable System de Telecomunicacoes Ltd	Deregistering debt securities only
Cemex, SAB de CV	Deregistering debt securities only
Commercial Cable TV Sao Paulo Ltd	Deregistering debt securities only
Concordia Bus AB	Deregistering debt securities only
Concordia Bus Finland OY AB	Deregistering debt securities only
Concordia Bus Nordic AB	Deregistering debt securities only
Concordia Bus Nordic Holding AB	Deregistering debt securities only
Gracechurch Card Funding No 6 PLC	Deregistering debt securities only
Hanson Australia Funding Ltd	Deregistering debt securities only
Jean Coutu Group (PJC) Inc	Deregistering debt securities only
Kowloon Canton Railway Corp	Deregistering debt securities only
MTR Corp LTD	Deregistering debt securities only
Norbord Inc	Deregistering debt securities only
OSLO Challenger PLC	Deregistering debt securities only
OSLO Explorer PLC	Deregistering debt securities only
OSLO Seismic Services Inc	Deregistering debt securities only
PGS Geophysical AS	Deregistering debt securities only
Russel Metals Inc	Deregistering debt securities only
Smurfit Kappa Funding PLC	Deregistering debt securities only
Tevecap SA	Deregistering debt securities only
TVA Communications Ltd	Deregistering debt securities only
TVA Parana Ltd	Deregistering debt securities only
Shaw Communications Inc	Deregistration of preferred shares only; common shares are still listed on the NYSE
Third Century Bancorp	Filing under Rule 12g-4(a), a pre-existing rule; the rule change has no bearing on the decision to deregister
ACE Aviation Holdings Inc.	Holding from Air Canada court-supervised restructuring; was terminated and distributed its assets to shareholders

Appendix B, continued.

Excluded firms	Reason for exclusion
Intesa Sanpaolo SPA	Merger between Intesa and Sanpaolo IMI; Sanpaolo IMI's securities were deregistered as a result of the merger
East Energy Corp (fomerly Gobi Gold)	Never listed on a U.S. exchange
Gemalto NV	Never listed on a U.S. exchange; successor registrant after acquiring Gemplus (registered); subsequently deregistered
Coolbrands International Inc	Never listed on a U.S. exchange; successor registrant after acquiring Integrated Brands (registered); subsequently deregistered
Genterra Inc	Never listed on a U.S. exchange; successor registrant after acquiring Mirtronics (registered); subsequently deregistered
BTG PLC	Never listed on a U.S. exchange; successor registrant after acquiring Protherics; subsequently deregistered
Iberdrola SA	Never listed on a U.S. exchange; successor registrant after acquiring Scottish Power; subsequently deregistered
Vecima Networks Inc	Never listed on a U.S. exchange; successor registrant after acquiring Spectrum Signal Processing (registered); subsequently deregistered
Sopheon PLC (formerly Polydoc)	Never listed on a U.S. exchange; successor registrant after acquired Teltech (registered); subsequently deregistered
Telecom Italia Media SPA	Never listed on a U.S. exchange; acquired Tin.it (owned by Telecom Italia) and offered ordinary shares to Telecom Italia's shareholders in the US; subsequently deregistered the securities
Arcelor Brasil (formerly Belgo-Mineira Steel)	Never listed on a U.S. exchange; merger between Belgo-Mineira, Companhia Siderurgica de Tubarao, and Vega do Sul
Daiichi Sankyo Company Ltd	Never listed on a U.S. exchange; merger between Daiichi Pharmaceutical and Sankyo Company
ETZ Lavud Ltd	No data in Worldscope
Eurotrust A/S	No data in Worldscope or Datastream
Advanced Proteome Therapeutics Corp	OTC listed, but never listed on a U.S. exchange
Alamos Gold Inc	OTC listed, but never listed on a U.S. exchange
Atlanta Gold Inc (formerly Twin Mining)	OTC listed, but never listed on a U.S. exchange
Berkley Resources Inc	OTC listed, but never listed on a U.S. exchange
Candente Resource Corp	OTC listed, but never listed on a U.S. exchange
CLP Holdings Ltd	OTC listed, but never listed on a U.S. exchange
Commonwealth Bank Of Australia	OTC listed, but never listed on a U.S. exchange
Crew Gold Corp	OTC listed, but never listed on a U.S. exchange
El Nino Ventures Inc	OTC listed, but never listed on a U.S. exchange
Euro Disney SCA	OTC listed, but never listed on a U.S. exchange
Evolving Gold Corp	OTC listed, but never listed on a U.S. exchange
Farallon Resources Ltd	OTC listed, but never listed on a U.S. exchange
Gentry Resources Ltd	OTC listed, but never listed on a U.S. exchange
Guildhall Minerals Ltd	OTC listed, but never listed on a U.S. exchange
Halo Resources Ltd	OTC listed, but never listed on a U.S. exchange
J Pacific GoldInc	OTC listed, but never listed on a U.S. exchange
Kirkland Lake Gold Inc	OTC listed, but never listed on a U.S. exchange
Lund Gold Ltd	OTC listed, but never listed on a U.S. exchange
OSI Geospatial Inc (formerly Offshore Systems Int'l)	OTC listed, but never listed on a U.S. exchange
PivX Solutions Inc	OTC listed, but never listed on a U.S. exchange
Resin Systems Inc	OTC listed, but never listed on a U.S. exchange
Rolling Thunder Exploration Ltd	OTC listed, but never listed on a U.S. exchange

Appendix B, continued.

Excluded firms	Reason for exclusion
Sonic Technology Solutions Inc	OTC listed, but never listed on a U.S. exchange
Southwestern Resources Corp	OTC listed, but never listed on a U.S. exchange
Vannessa Ventures Ltd	OTC listed, but never listed on a U.S. exchange
Wealth Minerals Ltd	OTC listed, but never listed on a U.S. exchange
Zoloto Resources Ltd	OTC listed, but never listed on a U.S. exchange
Cookson Group PLC	OTC listed, but never listed on a U.S. exchange; previously filed form 15 and deregistered the subject securities
Pernod Ricard SA	OTC listed, but never listed on a U.S. exchange; previously filed form 15 and deregistered the subject securities
Autonomy Corp PLC	Previously filed form 15 and deregistered the subject securities (included in Pre-Rule 12h-6 sample)
Cable & Wireless PLC	Previously filed form 15 and deregistered the subject securities (included in Pre-Rule 12h-6 sample)
Cinram International Income Fund (formerly Cinram Int'l)	Previously filed form 15 and deregistered the subject securities
Colt Telecom Group PLC	Previously filed form 15 and deregistered the subject securities (included in Pre-Rule 12h-6 sample)
Dialog Semiconductor PLC	Previously filed form 15 and deregistered the subject securities (included in Pre-Rule 12h-6 sample)
Enodis PLC (formerly Berisford)	Previously filed form 15 and deregistered the subject securities (included in Pre-Rule 12h-6 sample)
Fletcher Building Ltd (formerly Fletcher Challenge)	Previously filed form 15 and deregistered the subject securities (included in Pre-Rule 12h-6 sample)
ICOS Vision Systems Corp NV	Previously filed form 15 and deregistered the subject securities (included in Pre-Rule 12h-6 sample)
Mitchells & Butlers PLC	Previously filed form 15 and deregistered the subject securities (included in Pre-Rule 12h-6 sample)
OAO Tatneft	Previously filed form 15 and deregistered the subject securities (included in Pre-Rule 12h-6 sample)
Premier Farnell PLC (formerly Farnell Electronics)	Previously filed form 15 and deregistered the subject securities (included in Pre-Rule 12h-6 sample)
Rank Group PLC	Previously filed form 15 and deregistered the subject securities (included in Pre-Rule 12h-6 sample)
RSA Insurance Group PLC (formerly Royal & Sun)	Previously filed form 15 and deregistered the subject securities (included in Pre-Rule 12h-6 sample)
Tenon Ltd (formerly Fletcher Challenge Forests)	Previously filed form 15 and deregistered the subject securities (included in Pre-Rule 12h-6 sample)
United Business Media PLC	Previously filed form 15 and deregistered the subject securities (included in Pre-Rule 12h-6 sample)
Vivendi SA (formerly Vivendi Universal)	Previously filed form 15 and deregistered the subject securities (included in Pre-Rule 12h-6 sample)
Imperial Chemical Industries PLC	Received and rejected a takeover bid just prior to Form 15F filing; subsequently acquired by Akzo Nobel NV
Havas SA	Received notice of non-compliance with listing standards from Nasdaq and then announced voluntary delisting; previously filed Form 15
Coles Group Ltd (formerly Coles Myer)	Voluntarily delisted from the NYSE in 2006; became an acquisition target prior to deregistration; subsequently acquired by Wesfarmers

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