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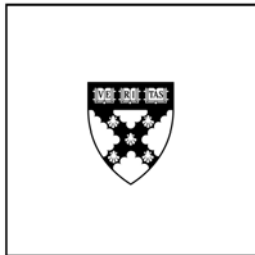
Securities and Exchange Commission
Washington, D.C.

To whom it may concern:

Attached please find a joint paper that empirically analyzes certain important aspects of the *Morrison* case. This draft replaces the earlier preliminary version, which we submitted to the Commission in response to its request for comments, and renders obsolete all prior versions. The current version includes extensive updates and multiple new findings. We request that any reference to our work would refer to this updated version and not to earlier ones. Also, reference to this work should reflect the fact that it is clearly marked as "preliminary."

Sincerely,

A handwritten signature in cursive script that reads "Jordan Siegel".



What Makes the Bonding Stick? A Natural Experiment Involving the U.S. Supreme Court and Cross-Listed Firms

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Working Paper

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What Makes the Bonding Stick? A Natural Experiment Involving the U.S. Supreme Court and Cross-Listed Firms

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Using a natural experiment to overcome the empirical challenges facing the debate over the bonding hypothesis, we analyze markets' reaction to a radical change in the law governing U.S.-listed foreign firms. On March 29, 2010, the U.S. Supreme Court signaled its intention to geographically limit the reach of the U.S. antifraud regime and thus exclude the overwhelming majority of investors in U.S.-listed foreign firms from the protection of this regime. This event nonetheless was met with either indifferent or positive, but never negative, reactions. Among other things, we find insignificant or positive abnormal returns, a reduction in the price premium for U.S.-purchased equities, and no change in bid-ask spreads or the proportion of U.S. trading volume. These results challenge the legal bonding hypothesis while suggesting that the U.S. regime of civil liability as currently designed may not have been seen as a source of economic value.

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1. Introduction

It is a truth universally acknowledged, that a foreign firm in possession of a good fortune, must be in want of a U.S. listing. This paraphrase on Austen's opening to *Pride and Prejudice*¹ may not be too far removed from the original as one might first believe. A growing literature documents positive outcomes that visit firms, especially ones with good growth opportunities, that list on a U.S. exchange.² These outcomes have been related to improved corporate governance, but the mechanisms that could engender such improvements consequent to a U.S. cross-listing remain debatable. In particular, it is unclear whether "legal bonding"—i.e., subjecting the foreign firm to U.S. legal institutions with a view to improving its corporate governance (Stulz (1999), Coffee (1999))—may be responsible for these beneficial outcomes.³

Assessing the actual impact of legal bonding is not an easy task. Potential endogeneity of cross-listing and unobserved firm heterogeneity poses a significant identification challenge (see Doidge et al. (2004); see Karolyi (2010) for a thorough review). In particular, it is difficult empirically to disentangle the legal bonding hypothesis from a different but similarly-aligned "reputational bonding" hypothesis, which highlights informal reputation building as a mechanism for committing to improved corporate governance (Siegel (2005)) and from an opposite "avoiding hypothesis," that emphasizes agency concerns that may deter from such commitment (Licht (2003)). A major difference between legal and reputational bonding is that

¹ Compare Austen (1813: 1) ("It is a truth universally acknowledged, that a single man in possession of a good fortune, must be in want of a wife.")

² For a comprehensive survey see Karolyi (2006). Karolyi (2010) provides a review of cross-listing and bonding. See, in particular, Lel and Miller (2008) (top management turnover), King and Segal (2009) (investor recognition), Hail and Leuz (2009) (cost of capital), Ball, Hail, and Vasvari (2009) (price of debt), Frésard and Salva (2010) (value of excess cash).

³ See Licht (1998) for a general theory. See, e.g., Bushee and Leuz (2005), with regard to mandatory disclosure by over-the-counter bulletin-board firms, and Doidge, Karolyi, and Stulz (2010) as well as Fernandes, Lel, and Miller (2010) with regard to opting out of stringent disclosure. We abstract from further discussion of SOX because it is highly controversial in terms of the benefits or burdens it might have brought about for firms and markets. See Li (2010) for a discussion of the overall governance regime.

the former depends on the host country's enforcement and in practice may allow some insiders to flout the law while leaving shareholders to bear the costs, whereas the latter may incentivize at least some insider to follow the weakly enforced rules for reputational reasons. Identifying a causal role for legal bonding thus may necessitate a natural experiment, but to our knowledge, only Siegel (2005) thus far has advanced a theory and tested it by implementing this methodology to identify the importance of reputational bonding over legal bonding. Answering this question has profound implications for firms and governments alike, especially in emerging economies, that contemplate corporate governance improvements. It is one thing to mimic the U.S. by adopting similar laws or listing rules; it is quite another thing to replicate the U.S. capital market should non-legal features of the latter be responsible for the bonding effects.

We exploit an abrupt change in the U.S. legal regime applicable to U.S.-listed foreign firms to conduct such a natural experiment. This regime comprises a set of disclosure duties that rest on two enforcement pillars: public enforcement by the SEC and private enforcement imposing civil liability through class actions. In the case of *Morrison v. National Australia Bank Ltd.* (2010) ("*Morrison*"), the Supreme Court of the United States ruled that civil liability for securities fraud applies only to securities listed for trading on an American market and to securities transactions effected in the United States. Rather than clarifying and stabilizing a decades-old line of cases on this subject, the Court discarded this entire body of law and replaced it with a brand new test. U.S.-listed foreign private issuers ("FPIs") (also referred to in the literature simply as cross-listed firms) thus were suddenly shielded from civil claims by investors who purchased their shares on their home markets. Moreover, although the case before the Court dealt most immediately with civil liability, much of the legal analysis revolved around the

interpretation of Congressional language of the antifraud regime in general. This analysis extends to public enforcement, as the SEC also acknowledged.

Such a massive change in the law of securities fraud is nearly unprecedented.⁴ This change presents an opportunity to examine not only the legal bonding hypothesis but more generally the value of U.S. civil liability for foreign firms. The Court's precedent-altering position on this issue became clear only during oral argument on March 29, 2010. These features render *Morrison* uniquely suitable to conducting a natural experiment for identifying causality in this complex setting. This paper thus examines whether markets reacted to *Morrison* consistently with the notion that the U.S. antifraud regime—in particular, the civil liability regime as it is currently designed—plays a beneficial bonding role.

We investigate how market participants responded to this imminent legal change at two levels of analysis – of firms and of investors. At the firm level of analysis, we look for changes in firms' market value. We examine the stock returns in a comprehensive sample of U.S.-listed FPIs primarily around the date of oral argument before the Supreme Court. In numerous specifications and using several methodologies, we fail to find any negative market reaction to this event as the legal bonding theory implies. Instead we find either insignificant or, in many cases, significantly positive abnormal returns in both the U.S. and home markets around that date. Cross-sectional analyses of abnormal returns show that FPIs' abnormal returns associate positively with the proportion of their equity capital that is listed outside the United States – in particular, by firms in which the majority of their capital is not listed in the U.S.. This finding supports the proposition that the greater the capital that was excluded from the ambit of the U.S. legal regime the more positive was the stock market reaction. We consider an array of variables

⁴ Legislative reforms are preceded by a lengthy process of public comment and hearings and court decisions of such magnitude are exceedingly rare. See Cox and Thomas (2010) for a survey. Choi (2004) reviews the evidence on the enactment of the Private Securities Litigation Reform Act of 1995.

that have been widely used as measures of home-country and firm-level corporate governance. Strikingly, abnormal returns in the U.S. exhibit virtually no relation to this set of governance variables. Moreover, the home-market returns tend to exhibit significant negative relations with these measures. That is, the weaker are the governance institutions in the companies' home markets the more *positively* these markets reacted to the exclusion of non-U.S. transactions in their shares from the U.S. antifraud regime. We also fail to find evidence that the imminent legal change caused markets to impute a higher adverse selection risk to FPIs as reflected in the bid-ask spread. An examination of FPIs' bond return reactions finds positive, though not robust, responses.

At the investor level of analysis, we examine whether investors' trading behavior reflects adjustments to the new legal regime, which from their vantage-point now provides only U.S.-located transactions the option to join a securities fraud class action and collect part of the settlement payment. An analysis of price and return differentials reveals that investors may have reduced the premium on securities that are purchased on U.S. markets (relative to similar ones that were purchased on the home market) subsequent to the oral argument event. When looking at trading volumes across markets during 2010, we find that investors did not vote with their feet for the U.S. market by shifting more transactions to U.S. exchanges after this focal event.

These results may be fairly summarized as suggesting that when the U.S. Supreme Court signaled its intention to dispense with civil liability in connection with investors (even U.S. investors) who purchase FPI shares on non-U.S. exchanges, these investors responded with a yawn and perhaps even with some glee. Moreover, legal developments around the oral argument event in *Morrison* support the idea that these market reactions also reflected a likelihood of geographically limiting the SEC's public enforcement authority, in addition to the limitation of

civil liability. This evidence entwines two separate findings and implications. First, the non-negative reaction questions the legal bonding hypothesis, at least with regard to the current U.S. civil liability regime as a beneficial corporate governance mechanism. Second, the unexpected (though less stable) positive reaction at the firm level of analysis and the virtual non-reaction in terms of investors' trading behavior might go beyond current theories on cross-listing and corporate governance to shed light on using class actions, as currently designed, to impose civil liability. Be it as it may, the present findings may call upon policy-makers in both developed and emerging economies to reassess the institutional mechanisms that could support corporate governance reform. The current evidence might be interpreted yet more broadly, as asking if secondary market civil liability indeed may be a liability. As discussed extensively in Siegel (2005), the civil liability regime as currently designed often has involved the insiders not compensating the aggrieved minority investors out of their own pockets, the minority investors only recovering a small fraction of their conservatively measured losses, and the minority investors still owning shares in the firms often in effect compensating past shareholders via the company's current insurance policy. Thus, while our natural experiment focuses on cross-listed FPIs, the results highlight the importance of an inquiry into the merits of the current U.S. civil liability regime on U.S. firms as well.

The paper proceeds as follows. Part 2 lays down the theory and hypotheses and maps this study in relation to other literature. Part 3 explicates the institutional background, the decision in *Morrison*, and its aftermath. Part 4 describes the data. Part 5 presents the analyses and the results. Part 6 concludes.

2. Theory

This part first delineates the theoretical framework on the legal bonding hypothesis and on the desirability of civil liability in general, which motivates the present empirical analysis. The following section orients the current study in relation to the literature on the subject. The last section summarizes the hypotheses.

2.1. *Theoretical Background*

Firms may often want to signal their superior quality to investors. By cross-listing on a better-regulated market such firms can legally bond themselves and their insiders to better corporate governance as they become subject to a better legal regime (Stulz (1999), Coffee (1999)). Coffee (2002: 1796) thus argues: “All that is necessary for the [legal] bonding hypothesis to have validity is that the defendant’s perceived risk of liability rises at least marginally with its entry into the U.S. markets... If, as a result, the controlling persons of the foreign issuer provide superior disclosure or consume less private benefits of control... then the value of the public shares in such companies should logically rise (and it does).”

Yet legal bonding is not the only mechanism with which firms can use cross-listing credibly to commit to better governance. Siegel’s (2005) theory of reputational bonding explains how building a reputational asset can help firms (especially in emerging economies, where outside capital is scarce) to receive privileged access to this capital. Such a reputational asset can lead many, but not all, firms to observe rules that they are not forced to follow.

Concurrently, an “avoiding hypothesis” suggests that in some cases, insiders may be deterred by a stringent legal regime and prefer to avoid the concomitant decrease of private benefit extraction (Licht (2003)). These hypotheses are not mutually exclusive. Stulz (2009: 349) thus notes that “some firms will choose stronger securities laws than those of the country in which they are located and some firms will do the opposite.”

Although there is substantial evidence that a U.S. cross-listing could be beneficial, especially for firms from emerging economies, evidence directly in support of legal bonding is limited. The identification challenge is considerable. One has to show that it is the legal system which “makes the bonding stick”—both by setting better rules *and* by inducing compliance with these rules. The former element may be difficult to show but is at least observable: one could compare the laws of two countries and try to rank them.⁵ The latter element, of the compliance mechanism, is more elusive. Legal bonding implies that compliance obtains because of the legal system—due to deterrence—as opposed to voluntary compliance. A good deal of the literature surveyed below assumes, but does not show, that a beneficial effect associated with a U.S. cross-listing can be attributed to legal bonding. In tandem, there is substantial evidence for the reputational bonding and the avoiding hypotheses. In an illuminating review of the bonding theory, Karolyi (2010: 12) tentatively concludes: “A proper verdict about the bonding hypothesis, especially of its purer ‘legal’ form, has not yet been rendered. We still need a complete understanding of the enforcement mechanisms around the world, their financial needs as inputs and the full scope of legal outcomes.”

From a broader perspective, this study deals with the law of securities fraud, which in turn is part of the general regulation of disclosure in securities markets. More accurate and timely disclosure helps market participants to price financial assets. Disclosure also helps in mitigating agency problems and is therefore generally believed to be desirable (see Beyer et al. (2010) for a survey). Although firms may have some incentive to make voluntary disclosure (see, e.g., Hollander, Pronk, and Roelfsen (2010)), securities regulation regimes also rely on deterrence to curb fraud. To this end, these regimes combine punishments, imposed through

⁵ As Spamann (2010) demonstrates, however, identifying, comparing, and ranking countries’ laws on corporate governance is no small feat.

public enforcement, with civil liability, imposed by private litigation. Both of these mechanisms appear to be important. Jackson and Roe (2009) show that the scope of regulatory staff and budget affects financial market outcomes. La Porta, Lopez-de-Silanes, and Shleifer (2006) point to rules on disclosure and on civil litigation as the rules that “work” in securities laws. In connection with legal bonding Coffee (2002: 1788) argued that the market appreciates civil liability as “a powerful engine of private enforcement (e.g., the contingent fee-motivated plaintiffs bar) [that] stands ready to enforce U.S. legal rules.”

Legal scholars, however, have long been questioning the merits of civil liability in the secondary market.⁶ Legally, an issuer or insiders who divulge misleading information to the market do not receive a direct financial benefit from any two investors who trade securities in prices affected by this information. For any transaction in the secondary market, one investor’s loss is the counterparty’s gain. Siegel’s (2005) field work on cross-listed firms examines in detail the actual operation of the civil liability regime among firms and securities lawyers. Observing the well-known fact that virtually all cases end in settlement, Siegel further finds that shareholders often only received the value of the insurance in the settlement, while insiders who committed the fraud while being covered by director and officer insurance rarely had to pay anything directly. That insurers provide additional products to the firms might be the reason that multiple generations of managers at the same companies repeatedly violated the securities laws. Consequently, public shareholders may end up paying for insiders’ misdeeds. In a recent study of markets’ reaction to the filing of class actions against foreign firms, Gande and Miller (2011) indeed find a negative response estimated at some \$73 billion for 1996-2008.

⁶ See, e.g., Alexander (1996), Coffee (2006), Jackson and Roe (2009), Mahoney (1992; 2009), Seligman (2004). Coffee thus seems to be of two minds with regard to civil liability. See also Coffee (2007). Fox (2009) argues that an issuer not publicly offering securities at the time of a disclosure violation (fraud) should have no liability.

The upshot is that civil liability as currently designed may mobilize lawyers as private enforcers of the securities laws but such liability might not achieve optimal deterrence and instead engender inefficient redistribution among past and present shareholders and social harm to the entire market as a public institution (compare Bhattacharya and Daouk (2002)). A 1995 legal reform that sought to address several deficiencies in the U.S. civil liability regime yielded mixed results, such that the general desirability of civil antifraud liability remains debatable (see Cox and Thomas (2010) for a review). Langevoort (2008: 199) thus opines that “a case can be made for some pull back in terms of [FPIs’] antifraud liability exposure in private actions.”

2.2. *Related Literature*

This study relates most closely to the burgeoning literature on cross-listing as a bonding mechanism. As noted, it is empirically challenging to identify causality with regard to the legal bonding hypothesis. Firstly, specific firm characteristics may provide financial or strategic motivations for cross-listing, in addition to corporate governance factors, thus leading to identification problems due to endogeneity (see Karolyi (2010), Hail and Leuz (2009)). Whether the U.S. legal regime works to support bonding or deter from it is also ambiguous. Corporate insiders—who in non-U.S./U.K. firms are primarily controlling shareholders—may prefer to avoid institutional constraints on their ability to extract private benefits. Evidence for this avoiding hypothesis has been accumulating recently.⁷ It is especially difficult to disentangle legal bonding from reputational bonding. Some studies refer simply to “bonding” (e.g., Bancel, Kalimipalli, and Mittoo (2009), Boubakri, Cosset, and Anis (2010), Melvin and Valero (2009)). Several studies mention both legal and reputational bonding and assume that both play a causal

⁷ See Doidge, Karolyi, Lins, Miller, and Stulz (2009); see also Boubakri, Cosset, and Samet (2010), Doidge, Karolyi, and Stulz (2010), Hope, Kang, and Zang (2007). Li (2010) shows that only about 15 percent of the cross-listed FPIs in 2001 have more than 10% controlling shareholders, suggesting the dominant shareholders may prefer to avoid the U.S. market.

role in engendering the observed beneficial effect.⁸ Other studies find direct evidence consistent with reputational bonding irrespective of legal bonding. Frésard and Salva (2010) find “clear-cut evidence” for increased monitoring in cross-listed firms, including firms listed in the over-the-counter market, which, they argue, are not subject to increased regulation. Crawford (2009) finds an increase in analyst coverage following a cross-listing, especially in firms from countries with *better* corporate governance institutions. He attributes this effect primarily to market forces, irrespective of legal institutions. Similarly, Ammer, Holland, Smith, and Warnock (2008: 6) show that cross-listing increases information production “without necessarily putting weight on explicit protections provided by the U.S. legal system” (see also Burns, Francis, and Hasan (2007), King and Segal (2009), Litvak (2009)).

Doidge et al. (2009: 428) argue that “direct U.S. securities laws and enforcement are more important constraints in the extraction of private benefits than is the scrutiny of financial analysts” as they find that firms, in which private benefits extraction is more likely, tend to avoid the higher regulation U.S. listings (in line with the avoiding hypothesis), while analyst coverage increases for all types of foreign listings. Analysts indeed play a pivotal role in firms’ informational environment (Lang, Lins, and Miller (2004)), but the number of analysts does not preclude other mechanisms for reputational bonding such as creditors and investment banks.

Two studies exploit a legal reform that made it easier for cross-listed firms to delist and deregister from the American market and could therefore shed light on legal bonding. Fernandes, Lel, and Miller (2010) and Doidge, Karolyi, and Stulz (2010) find that the market reacted more negatively to this reform with regard to firms from countries with weak disclosure and governance regimes. This finding suggests that such firms more extensively rely on, and

⁸ See Ball, Hail, and Vasvari (2008), Bris, Cantale, and Nishiotis (2007), Doidge, Karolyi, and Stulz (2004), Doidge, Karolyi, and Stulz (2009), Hail and Leuz (2009), and Lel and Miller (2010).

benefit from, the American corporate governance components in the hybrid regime created by the cross-listing. A closer look reveals that the evidence for the legal bonding hypothesis is only partial. The observed effects support Rock's (2002) "lobster trap" argument—namely, that the (then-in-force) rules applying U.S. securities laws to foreign firms with U.S. shareholders operate like a lobster trap: easy to enter voluntarily; hard to exit (see also Marosi and Massoud (2008) and Li (2010)). This structure enables foreign firms to make a credible commitment to remain subject to U.S. laws for a long time—a critical feature, which the legal reform eroded. However, while this mechanism is legally-based and may be instrumental for bonding, it leaves open the question which mechanism may induce compliance—whether it is legal deterrence or reputation-based. Finally, in a study that appeared after a preliminary version of this study came out, Gagnon and Karolyi (2011) also examine the economic consequences of *Morrison*. These authors fail to find in their sample a significant change in firms' market value on the oral argument focal event. This is in contrast to what the legal bonding hypothesis implies and is therefore not inconsistent with our results in this respect.⁹ The present study relates more generally to a new rivulet of research that reflects disenchantment with cross-listing not only as a vehicle for bonding. Several studies fail to find valuation increases that could be attributed to bonding to better institutions (Gozzi, Levine, and Scmukler (2008), King and Segal (2009), Sarkissian and Schill (2008), see also Iliev, Miller, and Roth (2011)). Using a global panel, Sarkissian and Schill (2010) observe waves of cross-listings and observe that in the long run, value premiums tend to be fleeting. Sarkissian and Schill (2011) show that the foreign listing

⁹ Gagnon and Karolyi (2011) in fact find in their sample a significant positive market reaction on the decision publication event on June 24, 2010, which is consistent with our results. As noted below, the publication event is a noisy one because it could be confounded with other major legal reforms so to be conservative, we here focus on the oral argument event. Gagnon and Karolyi's (2011) central finding refers to post-*Morrison* return deviations between firms' U.S.-listed securities and their respective home-market-listed shares. This finding refers to the investor level of analysis discussed below.

premium is a universal phenomenon, experienced also by U.S. firms, and is largely unrelated to governance variables. While these findings do not disprove the bonding hypothesis, in either of its versions, they underscore the idea that insiders may use cross-listing to time (or game) the market.

On a broader level yet, our study relates to a vast literature on legal regulation of corporate disclosure (see Beyer et al. (2010)). Several studies within this field discuss the role of public and private enforcement mechanisms as necessary components in every disclosure regime, needed to overcome insiders' inclination to hide or delay bad news because they may fear getting sued (Skinner (1994)). Importantly, much of the extant empirical literature does not distinguish between public and private enforcement (but see La Porta et al. (2006)). For example, Bushman and Piotroski (2006) find that firms in countries with strong public enforcement are more conservative, but private enforcement (disclosure and litigation) has no impact on conservative financial reporting (see also Hope (2003)). DeFond, Hung, and Trezevant (2007) find that annual earnings announcements are more informative in countries with better-enforced anti-insider trading laws. Daske, Hail, Leuz, and Verdi (2008) argue that capital market benefits to more transparent firms accrue only to firms from countries where the rule of law prevails.

Finally, this study relies on the research of relations between market trading and corporate governance (see Healy and Palepu (2001) for a survey). We are especially interested in the bid-ask spread as a measure of adverse selection risk (or costs) due to different levels of disclosure quality. Prior research has shown that the spread narrows for firms that are subject to higher disclosure requirements and to better corporate governance in general (Leuz and Verrecchia (2000), Chung, Elder, and Kim (2010)) and for firms that are based in countries with

better institutions and investor protection institutions in particular (e.g., Chung (2006), Eleswarapu and Venkataraman (2006)).

2.3. Hypotheses

To summarize the research questions, the *legal bonding hypothesis* implies that by denying a U.S. civil liability cause of action from foreign securities transactions the U.S. Supreme Court severed the ties that bond FPIs vis-à-vis their non-U.S. investors. One therefore expects *Morrison* to exert a negative effect proportionate to the share of non-U.S. investors within firms' shareholder basis. This hypothesis further implies that the weaker the firm's corporate governance the greater will be the loss due to severing these bonds. In addition, more valuable firms, e.g., ones with greater growth opportunities, might suffer more from the loss of these bonds. Finally, we expect the weaker deterrent effect due to the diminished civil liability will cause the spread to widen, and more strongly so for firms with weak corporate governance. With regard to civil antifraud liability in general, the literature suggests opposite hypotheses. A *beneficial deterrence hypothesis* dovetails the legal bonding hypothesis, as it implies that markets should react negatively to *Morrison* as it eroded the credibility of firms' disclosures by blunting the threat of liability. In contrast, a *regulatory burden hypothesis* implies that *Morrison* relieved a set of issuers from a wasteful costly burden such that markets would react positively with regard to these issuers.

3. The scope of legal liability before and after *Morrison*

The central pillar of the U.S. civil liability regime in the secondary market is Section 10(b) of the Securities and Exchange Act of 1934 ("SEA"), which prohibits securities fraud, and SEC Rule 10b-5, which implements it. Famously, the SEA does not explicitly provide for civil liability and it is silent with regard to its extraterritorial reach. The U.S. Supreme Court

nonetheless had held that civil liability for securities fraud is clearly implied by §10(b) and later adopted the fraud-on-the-market doctrine.¹⁰ This paved the way for numerous investors to be grouped in a single class action. Most other countries do not recognize this doctrine and class actions are much less developed, which significantly limits the exposure to civil liability outside the United States. U.S. district courts since the 1960s have developed tests for applying U.S. securities law when foreign elements are involved, known as the “conduct test” and “effects test”. Both tests are fact-intensive and as such inevitably somewhat vague but they have become well-established in all the federal circuits (see Buxbaum (2007) for a review).

The SEC has always insisted that it can assert its regulatory jurisdiction extraterritorially under the conduct and effects tests but in practice adopted a more reserved stance. In its rule-making capacity, the SEC repeatedly promulgated more lenient regulations for FPIs and provided exemptions from certain corporate governance requirements (see Licht (2003), Li (2010), Shnitser (2010)). With regard to enforcement, too, the SEC employed a relatively light punishment approach with regard to FPIs and their insiders (Siegel (2005)). Shnitser (2010) observes that relative to domestic U.S. issuers, FPIs have benefited not only from a laxer set of rules but also from a more forgiving public enforcement agency. Put otherwise, the rumors of the SEC’s imminent threat of public enforcement have been greatly exaggerated.

Against this backdrop, *Morrison* involved a large Australian bank with common shares trading in Australia and in several other countries and ADRs trading in the U.S. The fraud took place in a wholly-owned Florida subsidiary but was communicated to the market by the Australian bank. In these circumstances, it was natural for the U.S. District Court of Appeals to

¹⁰ Respectively, *Blue Chip Stamps v. Manor Drug Stores*, 421 U.S. 723 (1975) and *Basic, Inc. v. Levinson*, 485 U.S. 224 (1988).

dismiss the claim of a class made up solely of foreign investors who purchased common stocks in Australia for lack of sufficient linkage to the U.S., based on the regular tests.

Oral argument before the Supreme Court took place between 11:07 am-12:06 pm on March 29, 2010. The media began to discuss the impending hearing already on Friday, March 26, 2010. In the widely-followed Conglomerate blog, Buxbaum (2010) emphasized that “the question the case presents is a more general one: how to define the scope of application of U.S. securities law in cases with foreign elements.” (see also (Denniston (2010a)). Describing the case as “one of the most keenly-awaited of the year”, the Times of London said: “The Supreme Court will on Monday hear a case that threatens to scare foreign companies from investing in America by hugely expanding overseas investors’ rights to bring multi-million dollar securities actions in the US.” A blogger on the *Wall Street Journal* Blogs wrote: “We can’t remember a case about jurisdiction that’s generated such feverish interest as the one to be argued Monday at the U.S. Supreme Court” (Jones, 2010). The oral argument transcript reveals that it already reflected all the major elements which would later appear in the Court’s written decision—in particular, abolishing the conduct and effects tests with regard to civil liability. After Justice Ginsburg commented that this case “has ‘Australia’ written all over it” (*Morrison Transcript*, 2010: 5), Justice Scalia explicitly stated: “We don’t want the determination of whether there has been a misrepresentation on the Australian exchange and whether Australian purchasers relied upon that misrepresentation to be determined by an American court” (p. 16). Chief Justice Roberts complained that “there are a lot of moving parts in that [conduct] test. You know, significant conduct, material, you require it to have a direct causal relationship. Doesn’t the complication of that kind of defeat the whole purpose?” (p. 41).

Shortly after the oral argument concluded, at 12:28 pm, the leading SCOTUSblog posted an analysis titled “Curb on securities suits?” that said: “U.S. Supreme Court on Monday explored ways to sharply limit or perhaps even forbid private securities fraud lawsuits in U.S. courts that might intrude on foreign governments’ powers to police their own stock markets. Little sentiment was expressed on the bench in favor of allowing foreign investors to come to America to sue for fraud that occurred mainly overseas, even if there were some connection to the United States.” (Denniston, 2010b). At 1:37 pm, the Associated Press published an article saying: “The Supreme Court indicated Monday it could prohibit foreign investors from using U.S. securities law and American courts to sue a foreign bank for fraud.” (Sherman, 2010).

In its written opinion, the majority of Supreme Court justices, led by Justice Scalia, discarded the conduct and effects tests and replaced them with a new “transaction test,” under which civil liability applies only to transactions in securities listed on an American stock exchange and to securities transactions in the United States.¹¹ The majority thus leveled the elaborate legal edifice built in the course of over 40 years, which was part and parcel of the general U.S. jurisprudence on extraterritoriality (American Law Institute, 1987: §416).

The Supreme Court’s decision was publicized on June 24, 2010. Within less than 24 hours, on June 25, 2010, a conference committee approved the final version of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (“DFA”). It transpired that in the last round of legislative process, two sections were added to this mammoth statute. Sections 929P and 929Y provide that U.S. courts will have jurisdiction regarding public enforcement of the Securities Acts by the SEC and the Department of Justice based on the conduct and effects test.

¹¹ The Court’s exact language (*Morrison*: 2888) closely follows the statutory language of Section 10(b):
Section 10(b) reaches the use of a manipulative or deceptive device or contrivance only in connection with the purchase or sale of a security listed on an American stock exchange, and the purchase or sale of any other security in the United States.

With regard to civil liability Congress only instructed the SEC to conduct a study on the desirability of using these two tests, thus leaving the ruling in *Morrison* intact. FPIS thus remained shielded from civil antifraud liability under U.S. law.

Although the case before the Court involved civil liability, much of the legal argument revolved around general principles of statutory interpretation, treatment of Congressional silence, and international comity. These principles are equally applicable to public enforcement, such that people who followed the case could infer that the Justices' apparent intention to limit the extraterritorial reach of U.S. law extends to public enforcement as well. The SEC, for one, clearly made this inference. The legislative history and language of the June 25 amendments to the DFA show that the SEC was keenly aware of—and concerned about—the likelihood that the Supreme Court could limit its international enforcement authority (see Painter (2011) for a detailed analysis). The SEC later officially acknowledged that *Morrison* affected its public enforcement authority abroad, as it stated: “In the Dodd-Frank Act, Congress *restored* the ability of the Commission and the United States to bring actions under Section 10(b) in cases involving transnational securities fraud.” (SEC 2010b: 5; emphasis added). In its enforcement proceedings against Goldman Sachs's Fabrice Tourre, the SEC argued that “Congress effectively overruled *Morrison*,” which had “repudiated” the prior law (SEC 2010c: 10). The SEC, however, did not claim that this provision was retroactive and thus conceded *Morrison*'s applicability to public enforcement – a position that the court approved. The upshot is that extraterritorial fraudulent conduct that took place prior to June 24, 2010 is excluded from the ambit the SEC's authority.

4. Data

4.1. *Dependent Variable*

Our sample of FPIs contains foreign companies with cross listings on U.S. stock exchanges and foreign companies trading on OTC markets. We identify our sample FPIs using numerous sources. The primary sources, however, were the SEC and the websites of the various exchanges, COMPUSTAT North America, the CRSP Monthly Stock File, the CUSIP Master File, and the depository services directories of BNY Mellon, JP Morgan Chase, and Citigroup. Information on which exchanges the firms list on, and whether they have a listing in a foreign market, was also verified using Capital IQ's screening tools. In addition to those principal sources, the other sources consulted are detailed in Appendix 1.

We identify the set of cross-listed FPIs with SEC compliance at the end of 2009 along with their country of incorporation from the SEC website. A total of 676 FPIs were listed in the U.S. on December 31, 2009 according to the SEC. We hand-match the list of cross-listed FPIs with CRSP, Compustat, Worldscope, and Interactive Data Corporation to obtain various identifiers for our sample FPIs. We require that FPIs have listings in both the U.S. and home markets because the *Morrison* decision refers to transactions effected outside the U.S. We also require that sample FPIs have non-missing returns on at least one of the event days to maintain consistency in the cross-sectional regressions. We further require that sample FPIs have at least 50 valid returns over the estimation period between January 1, 2008 and December 31, 2009, with at least 20 valid returns after November 16, 2009. We examine the U.S. and home market returns separately, so firms do not need to meet these requirements simultaneously in both markets in order to be included in the analysis. A firm whose U.S. listing meets the above requirements, but whose home listing does not, would be included in the U.S. analysis and excluded from the analysis of returns on the foreign exchange. These requirements result in a

sample of 578 cross-listed FPIs with home market return data and 583 cross-listed FPIs with U.S. market return data. The difference between the U.S. and home samples is due to data availability.

U.S. daily returns data come from CRSP and home market daily returns data – from Worldscope. For missing observations we use data from Capital IQ, Inc., a division of Standard & Poor’s, which is also the source of bond returns data. Data on intraday 15-minute interval returns come from the New York Stock Exchange’s Trade and Quote (TAQ) database. Our sample includes firms that are no longer traded but were covered by these data vendors.

A lesser-known fact about foreign firms listed in the U.S. is that not all of them qualify as foreign private issuers for regulatory purposes. The SEC’s definition of a foreign private issuer excludes firms incorporated outside the United States, in which the majority of voting rights are held by American shareholders and one of the following criteria is also met: the majority of the top management is American; the majority of assets is located in the U.S.; the business of the firm is managed primarily from in the U.S (SEC Rule 405 and Rule 3b-4). We obtain the roster of firms that are foreign according to the banks’ websites but are regarded as domestic firms by the SEC. We compare the rosters of cross-listed FPIs from the banks’ websites and from the SEC. Any cross-listed FPI that is not on the SEC roster but is on the roster of the banks’ websites is classified into this category of “domestic foreigners.” We further verify the domestic foreigner status of these firms through EDGAR database and Thomson Analytics.

While many foreign firms enter U.S. securities markets using ADRs or other depositary facilities issued by depositary banks, a subset of 273 foreign firms use “direct listing,” namely, they list the same shares or stocks that are listed in their home market. Such direct listing is

common among Canadian and Israeli issuers and a small number of firms from other countries.

We identify the direct listings from the above-mentioned sources.

Because the benchmark choice is a major methodological issue in event studies of cross-listed firms (Karolyi (2010)) we use several market benchmarks to verify the robustness of our findings. Our primary market benchmark is the S&P 500 index, as it has the advantage of not including any foreign firms. For robustness tests we construct an FPI-Free World Index by using all the firms, live or dead, outside of the U.S. in the Datastream database. We exclude the home market returns of FPIs with SEC reporting obligations for the period during which they are cross-listed or OTC-traded in the U.S.

4.2. *Explanatory and Control Variables*

We use firms' market capitalization outside the U.S. as a proxy for the capital that (transactions in which) became shielded from liability due to *Morrison. Non-U.S.-Market Capitalization* is one minus the ratio of the market value of equity in the form of cross-listed securities in the U.S. divided by company market value. To obtain reliable data on this item we began with CRSP, Compustat, and public data from NYSE, NASDAQ, and AMEX. We then incorporated data provided to us directly by NASDAQ and company annual reports and consulted Capital IQ with regard to Chinese firms. Remaining ambiguities were reconciled through individual phone calls to specific firms. We obtain accounting data from Compustat and Worldscope.

From prior literature and international organizations we obtain data on countries' institutional factors pertaining to corporate governance and governance more generally, as follows. We use the indexes of legal rules on civil liability (*private litigation*) and on *disclosure* in securities regulation laws drawn from La Porta *et al.* (2006), namely, the securities rules that these authors identify as ones that "work" against insiders. A measure of shareholder protection

known as the *anti-director-rights index* (“ADRI”) comes from Djankov, La Porta, Lopez-de-Silanes, and Shleifer (2008). Refining and improving on a prior index of the latter three authors, the ADRI focuses on countries’ company laws. Spamann (2010) discusses alternative codings for the legal provisions included in the ADRI so we also obtain his versions of this prominent index. In addition, we consider Djankov et al.’s (2008) anti-self-dealing index (“ASDI”) of formal shareholder protection that emphasizes legal process. From Jackson and Roe (2009) we obtain data on *public enforcement* of securities laws as measured by the weighted sizes of the budget and of the staff of the regulatory agency.

We also control for several firm-level characteristics using data from Compustat. *Tobin’s q* is (market value of equity + total assets - common equity) / total assets. *Fixed Asset Intensity* is property, plant, and equipment as a percentage of total assets. *Log (total assets)* the natural logarithm of total assets, controls for firm size. *Return on Equity* is net income as a percentage of common equity. *Capital expenditure* is capital expenditure as a percentage of total assets. *Sales growth* is one-year sales growth and controls for growth opportunities. *Leverage* is short-term debt as a percentage of total assets. With data from the Stanford Securities Class Action Clearinghouse we identify all the FPIs in our sample that have been thus sued and the number of such lawsuits. For the analysis of price/return differentials we rely on price data provided by Capital IQ for both the U.S. security, and the home country security. We then limit the sample to days in which both firms have available prices. To avoid spurious effects from wrongly coded data (especially for ADR bundling ratios) we winsorize the dataset by removing observations on the extreme ends of the distribution in price differences. For the analysis of trading volume we identify all of a company’s active equities in Capital IQ and categorize them by exchange into foreign- versus U.S.-exchange groups. We then download a daily time series of volume for all

days from Capital IQ, and sum the volume by group and month. The analysis of bid-ask spreads also relies on daily data from Capital IQ.

4.3. *Summary Statistics*

Panel A of Table 1 reports the number of sample FPIs by country. These firms are from 48 countries, based on the SEC's country designation. The countries with the most FPIs are Canada (168 FPIs), Cayman Islands (63), Israel (46), and the United Kingdom (32). These countries also have far more FPIs than any other country. Sample FPIs are geographically diverse and are also somewhat diverse in their legal origin. English legal origin has the greatest number of sample FPIs, with 321 FPIs from 15 countries. Panel B reports the summary statistics for the variables used in our cross-sectional regressions. We report the number of observations with non-missing value for a specific variable. We also report the mean, median, standard deviation, and the 5th and 95th percentiles of these variables across all sample FPIs.

5. **Tests and Results**

The empirical analysis consists of two parts. At the firm level of analysis, we first test markets' reaction to the oral argument event using several methodologies. Next, we examine whether abnormal returns relate to a set of institutional factors that may affect legal bonding. At the investor level of analysis, we examine whether market participants adjusted their trading behavior to the legal change that would provide an advantage to trading on U.S. exchanges. We thus consider differential price and return changes and changes in relative trading volumes.

5.1. *Abnormal Returns around the Focal Event*

We examine the U.S. and home market stock returns of FPIs listed on U.S. stock exchanges around the focal event of oral argument in *Morrison* on March 29, 2010. We use market model adjusted returns to measure abnormal returns with the period from January 2008 to

December 2009 as the estimation period. We begin with the classic Brown-Warner t-test analysis. Table 2 reports in Panel A abnormal returns using either the S&P 500 index or the FPI-Free World Index as benchmarks, for samples consisting only of ADRs or of ADRs and direct-listing firms, both in the U.S. and in the home markets. The results are consistent across different combinations of benchmarks, samples, and markets: U.S.-listed foreign firms experienced positive abnormal returns on the oral argument event, ranging between 0.41%-0.59% for March 29 alone and 0.67%-1.17% for the entire event window. Panel B repeats the analyses while using market adjusted returns and assuming independence of the residuals and shows similar results. In light of Fama and French (2000), in the following tests we drop this independence assumption. Dropping it in Table 2 would cause the Brown-Warner t-statistics to lose their significance.

To illustrate the market reaction to the focal event, Figure 1 shows the cumulative stock returns of cross-listed FPIs during 15-minute intervals of the trading hours on March 29, 2010. Because the location of the transaction is the linchpin of *Morrison*, FPIs with more transactions likely to take place outside the U.S. would be more strongly affected by the new legal rule. Figure 1 thus distinguishes subsamples of FPIs with above and below median non-U.S. market capitalization.¹² Cumulative returns of these two subgroups were moving in lockstep until 12:30 pm, after which time returns of the above-median subgroup started to increase. The below-median subgroup remained largely stable until about 3:00 pm, when its returns began to increase but did not close the gap from the above-median group. This pattern is consistent with market participants quickly impounding the reports that were coming from the Supreme Court as good news for FPIs with especially high ratios of capital only listed outside the United States. For a

¹² Neither during the oral argument nor in the written opinion did the Supreme Court specify in detail how the location of the transaction is to be determined. Subsequent court cases that implemented *Morrison* indeed held that the location of the transaction is determined by the exchange on which it is executed.

different perspective on the market reaction and the role of non-U.S. market capitalization, Figure 2 shows the scatter plot of event period cumulative abnormal returns along an axis of non-U.S. market capitalization of individual FPIs. One may note the relative number of positive observations and in particular their concentration in the range above the median of 0.82 non-U.S. market capitalization. We address this feature in more detail below.

We also considered the event in which the Supreme Court announced it will hear the case (writ of certiorari), on November 30, 2009, and found insignificant abnormal returns. With regard to the event in which the written decision was publicized, on June 24, 2010, preliminary tests in an early stage of this study suggested a positive (or at least non-negative) market reaction. An in-depth analysis of the event itself unfortunately suggests that it does not render itself for conducting a reliable event study. In terms of news value for market participants, the written decision provided relatively little if any of it. Already in the oral argument, the full Court, led by Justice Scalia and Chief Justice Roberts and supported by Justice Ginsburg from the more liberal wing, among others, clearly signaled its intention to limit the reach of the U.S. anti-fraud regime abroad. While the majority's opinion in the decision was abrupt in its treatment of prior law, it did not stray from the course charted during oral argument. The bane of the this event, however, comes from the circumstances surrounding it - primarily its close proximity to the DFA, with its momentous implications for the capital market, which was discussed in Congress at the same time and was concluded within less than 24 hours. Worse yet, the provisions added to the DFA with regard to extraterritorial reach, at least with regard to public enforcement, were anything but clear (see Painter (2011)). Finally, for the oral argument we checked that there were no major news events or currency movements around it and in fact confirmed that currency movements do not drive our results. The same cannot be said about the

decision event. In addition to the DFA, banking sector and world economic news was published around that date, thus tainting the time window. Thus, we hereinafter focus on the oral argument event.

To address the cross-correlation of returns in the most rigorous way we implement Greenwood's (2005) methodology. This approach uses pre-event return data stocks to estimate the covariance matrix for individual stock returns. This estimated covariance matrix then serves to calculate standard error estimates that adjust for the observed correlations between different stocks. We implement this approach in two versions, presented in Panels A and B of Table 3, respectively. We consider U.S. and home market returns, for ADRs only and for ADRs together with direct listings, and various event windows and sub-samples. While there are some differences between the two versions – specifically, some more significantly positive excess returns in Panel A – the results are consistent in that in no case do we observe a negative market reaction as expected from the legal bonding hypothesis.

5.2. *Portfolio and Matched Sample Analyses*

Tables 4 presents our central tests of markets' assessments of the imminent legal change using a portfolio analysis approach, which we augment with a matched sample approach in Table 5.¹³ In both of these methods we consider returns both in the U.S. and in the home market, and as benchmarks we use the S&P 500 Index as well as the FPI-Free World Index (the latter in value-weighted and equal-weighted versions). We focus on firms with ADRs to keep the presentation tractable and also for substantive reasons – because direct listing FPIs differ from FPIs with ADRs. The median level of non-U.S. market capitalization among direct listers is only about 40%, which is less than half of the level among ADRs of about 88% (the median level for

¹³ A preliminary version of this paper also looked at bootstrapped p-values but the latter approach has been criticized in the finance literature (see Brav (2000)).

the overall sample of both ADRs and direct listers is about 82%). This lower level of non-U.S. market capitalization for direct listers is mostly due to a smaller proportion of FPIs with high non-U.S. market capitalization among direct listers, which also happen to be dominated by Canadian and Israeli issuers. Moreover, a certain legal ambiguity in the wake of *Morrison* applies to direct listing FPIs. The majority's reasoning underscores both the utmost importance of Congressional language in Section 10(b), which refers to listing on a U.S. exchange, and the presumption against extraterritorial reach of U.S. legislation. One might wonder, therefore, if the *Morrison* Court intended to exert any differential effect on foreign issuers that directly list their securities on U.S. exchanges, yet this point did not arise at all during the oral argument.¹⁴

Table 4 shows the portfolio approach analysis, where we used the sample FPIs to create a daily equal-weighted portfolio. We regress the portfolio returns on intercept, relevant benchmark returns, and an indicator that is 1 for March 26, 29, and 30 of 2010 and zero otherwise. We report three times the coefficient estimates of the indicator (due to three event days) and its t-statistics. We also examine subsamples without a 25 percent return restriction, excluding tax haven companies, and focusing on firms from emerging markets. This method presents difficulties for using robust standard errors, however, due to the small number of event days relative to the estimation period (see Long and Ervin (2000)). We therefore tabulate portfolio approach results with both unadjusted and robust standard errors in Panels A and B, respectively. One may observe that with unadjusted standard errors, many of the abnormal returns are insignificant, although in no case do we find a negative market reaction.

In Table 5 we implement a matched sample approach to examine whether abnormal returns of U.S.-listed FPIs in fact differ from returns of as-similar-as-possible foreign firms not

¹⁴ In any event, repeating the analyses of Tables 4 and 5 in the full sample of ADRs and direct listers yields similar results, which are available from the authors.

listed in the U.S. and thus unaffected by *Morrison*. We use several sequential matching procedures (Panel A) as well as different nearest-neighbor matches based on propensity score matching (Panel B) that consider market capitalization, book-to-market ratio, size by assets, industry, and home country. The results are consistent throughout and support the inference that markets tended to react positively to the imminent legal change.

Finally, Ball et al. (2009) argue that by cross-listing equity in the U.S. foreign firms may be able to lower their cost of debt, *inter alia*, thanks to lower information costs due to the U.S. disclosure regime and class actions. We therefore examine whether bond returns of PFIs may have responded to *Morrison* in line with the legal bonding hypothesis. In a test of bond returns around the oral argument event, we observe a significant increase but this increase is not robust (not shown). Bond returns thus do not reveal a negative reaction to *Morrison*.

5.3. *Abnormal Returns and Corporate Governance*

We now turn to examining the possible relations of abnormal returns to different factors that may affect them. In selecting these factors we are guided by theoretical considerations pertaining to corporate governance and to disclosure in securities markets and by prior literature on the bonding hypothesis, as elaborated above. Table 6 reports the results of cross-sectional regressions where firm-level and country-level variables are used to explain cross-sectional variation in the abnormal returns of individual FPIs during the oral argument event. The panels present piecewise linear specifications that distinguish four categories of the share of firms' equity capital that is listed on exchanges outside the U.S. as a proxy for the likely share of non-U.S. transactions. The most noteworthy is the above-median bracket of 0.82-1.00.

The focus of Table 6 is the role of the institutional environment pertaining to corporate governance in explaining the variability of abnormal returns in the U.S. and the home markets. We consider several variables that capture different facets of the legal environment in firms'

home country. Roughly speaking, these variables move from narrow aspects of securities regulation to broader aspects of governance. These variables feature prominently in accounts of cross-listing and the bonding hypothesis. We control for GDP per capita to avoid spurious effects from the level of national wealth and economic development. To avoid collinearity problems we enter the governance variables seriatim.

The results are intriguing. In considering U.S. returns, one would be safe to say that the legal home-country environment is unrelated to markets' reaction to the legal change. These results remained unchanged when we experimented with numerous alternative measures of corporate governance, including alternative codings of the ADRI described by Spamann (2010)¹⁵, the Anti-Self-Dealing index by Djankov et al. (2008), regulatory budget instead of regulatory staff from Jackson and Roe (2009) as a proxy for public enforcement, as well as several broader measures, including a common law origin, rule of law, and the efficiency of the judicial system from the World Bank's Doing Business database (not shown).¹⁶ In tandem, the coefficients for non-U.S. market capitalization remain largely stable and positive.

The results for home market returns portray a richer picture. Several governance factors—namely, private litigation, anti-director rights, and public enforcement of securities regulation—exhibit a significant negative sign. In other words, the weaker is the corporate governance institutional environment in the firm's home country according to these measures the *more positive* was markets' reaction to the looming exclusion of the firm from under the umbrella of the U.S. antifraud regime. Such a response goes against the logic of the legal bonding hypothesis, in which the U.S. regime serves to compensate for a firm's inferior governance environment. This response may be consistent with the regulatory burden and

¹⁵ The extent to which this index, in whatever coding, in fact captures the gist of shareholder protection under national laws is a question we abstract from.

¹⁶ Similar results obtain in a slightly different sample based on other designations of firms' home country.

reputational bonding hypotheses, however. In this view, being exposed to U.S. civil liability may be more burdensome for firms based in countries with particularly low-quality institutions but carrying this burden is actually wasteful. To the extent that *Morrison* relieved FPIs from this burden, it might have opened the door for the better firms from such countries more effectively to engage in reputational bonding. That the U.S. abnormal returns do not exhibit similar links to home-country institutions may be due to the fact that the home returns sample is far more weighted toward firms whose liquidity (trading volume) is primarily in the home market such that those firms experience a greater regulatory relief.

Most of the firm-level factors do not exhibit a significant link to market reaction to the imminent legal change. That capital markets were agnostic or even reacted positively to the partial abolition of U.S. civil antifraud liability with regard to U.S.-listed firms regardless of firm quality, size, profitability, or growth is also hard to reconcile with the legal bonding hypothesis, which underscores the value of bonding for better firms.¹⁷ This evidence is more consistent with the notion that U.S. civil liability as currently designed was simply burdensome.

Table 7 examines the effect of this likely dilution of the anti-fraud regime that FPIs are subject to on the bid-ask spread as a measure of adverse selection risk due to inferior disclosure. A wider spread after the focal event would indicate that this legal change may have loosened the bonding to full disclosure. We consider bid-ask data for the period between January 1, 2010 and August 31, 2010 on both U.S. and home markets. The main variable of interest is a post-event dummy taking 1 for the four months after the oral argument and 0 otherwise. We control for brackets of non-U.S. market capitalization and for the home-country institutional factors discussed above. To account for differential effects of these institutions on the spread we enter

¹⁷ We also experimented with other firm-level factors but these were not significant and did not change the results reported above. These results are available upon request.

interaction terms with the post-event dummy. In line with the literature on corporate governance and liquidity, Table 7 shows modest inverse relations between the U.S. spread and the quality of FPIs' home country institutional environment. Firms with more non-U.S. capital, i.e., at home, tend to exhibit narrower spreads on the home market and vice versa (though more weakly) for the U.S. market, as expected, since "liquidity attracts liquidity." In contrast, there is no discernable change in the bid-ask spread subsequent to the oral argument event, regardless of governance institutions.

In another effort to identify an effect on riskier or "worse" firms we conducted a separate set of tests where we examine if abnormal returns during the event period were different for FPIs that have been named as defendants in securities class actions since 1996. There are 115 such cases in our sample. While having been sued is not a conclusive evidence for wrongdoing, procedural rules since 1995 require that the complaint in a securities class action state with particularity the factual basis for fraud claims. Gande and Miller (2011) report that markets indeed responded negatively to the filing of those class actions at the time. Such a checkered history thus may be treated as *prima facie* evidence for investor protection quality. We find, however, that the abnormal returns of these defendant firms are similar to those of the non-defendant firms. In regressions using the basic specification as in Table 4, we enter a dummy variable taking a value of 1 for defendant FPIs or, alternatively, an index counting the number of lawsuits against the FPIs, which may better account for recidivistic firms. These variables exhibit insignificant signs in both tests. Thus, even for firms, in which investors in fact sought redress through the civil liability system, markets do not respond differently to the loss of this legal protection.

5.4. *Investors' Vantage-Point*

This section examines the reaction of market participants to the focal event from investors' vantage-point. Recall that *Morrison* denied investors in non-U.S. transactions the legal right – namely, an option – to sue in U.S. class actions in case of fraud. While the securities purchased on U.S. and non-U.S. markets are financially equivalent, purchasing in the U.S. provides investors an extra option value of participating in damages payments should the transaction be tainted by fraud. Investors may respond to this discriminatory effect in several ways: first, by paying a premium on U.S.-purchased ADRs compared with foreign-purchased shares (of equivalent equity capital amount), which would reflect this option value; second, by shifting at least some of their transactions to U.S. exchanges in order to be entitled to this option; third, by narrowing the bid-ask spread on U.S. markets relative to the spread on the home market because the option to sue for damages due to fraud may lower the adverse selection costs that the spread deals with (all else being equal). Importantly, these potential mechanisms relate to the firm's corporate governance—and hence, to bonding—only tangentially. This is because corporate governance due to bonding affects the firm, to the extent that it mitigates agency problems in it, whereas the current mechanisms affect investors due to trading and discriminate between groups of shareholders.

We begin with the observation that U.S.-traded FPI equities command a premium of about 0.9 percent on average over similar equities traded on the home market. Figure 3 graphically shows this premium for 30 business days before and after the oral argument event, adjusted for ADR bundling ratios, currency differences, splits, dividends, etc.. We therefore ask whether the oral argument event caused investors to increase this premium to reflect the extra option value that was to become attached only to U.S.-traded securities. Panel A of Table 8 tests

this question straightforwardly with the difference of the U.S. closing price minus the home market closing price. The results fail to show a significant post-event change in this difference.¹⁸

A more rigorous examination of changes in the U.S. trading premium should consider a possible differential impact of FPIs' corporate governance institutions at home. Panel B of Table 8 thus presents regressions, in which the dependent variable is the ratio between the U.S. and the home market prices, expressed in percentage points, between January 1, 2010 and August 31, 2010. We employ specifications similar to those used in the regressions of the bid-ask spread above, that include a post-event dummy, non-U.S. capitalization, governance institutions, and interaction terms. One may note that the U.S. location premium in general is lower for FPIs from countries with better institutions. Contrary to our own expectations, the results show that the premium for U.S.-located transactions actually shrank after the oral argument, regardless of home institutions, as if the event made investors less eager to place their orders in the U.S.. We repeated these analyses without clustering and with non-robust standard errors and obtained similar results. While more research may be needed, a possible conjecture is that market participants might have predicted that FPIs may shift some of their capital from the U.S. to the home market, which would harm liquidity.

Before looking at the latter surprising result from another angle, we briefly consider Gagnon and Karolyi's (2011) finding of post-*Morrison* changes in return differentials between firms' U.S.-listed securities and their respective home-market-listed shares.¹⁹ In Panel C of Table 8, we attempt to replicate in our sample these authors' finding. We run a similar regression of the return on a portfolio of return differentials of ADRs and direct listers on the

¹⁸ Using a non-winsorized dataset that includes extreme price data indicates a positive change in the premium when using mean price differences per issue pairs but an insignificant sign for individual observations.

¹⁹ Note that while we use daily price percentage (premium), which we find easy to interpret intuitively, these authors consider daily return differentials and in fact mention two slightly different definitions for this variable.

return on a benchmark index and a dummy variable as an indicator for the event days, using non-robust standard errors, yet we fail to observe a significant deviation.

Whether or not there was any change in the premium for U.S.-located transactions, one may be interested to know if investors voted with their feet by shifting at least some of the trading volume to the U.S. market with a view to secure their right to sue should fraud be discovered. In Table 9 we regress the share of total trading volume that occurs on U.S. markets, again using specifications similar to those used in Tables 7 and 8. Both the post-event dummy and the interaction terms of this dummy with institutional factors show no sign that investors somehow changed their preferences for trading venues in response to the looming legal change.

Our final inquiry examines whether, instead of exhibiting heightened interest in U.S.-located transactions by way of higher U.S.-location premium or greater U.S. trading volume, investors may have changed the relative bid-ask spread ratio between the U.S. and home markets. In this view, the option value of the right to sue in a U.S. class action that is available only to U.S.-located transactions may have allowed traders to narrow the relative U.S./home spread ratio because in the U.S. there is relatively less need to use the spread for hedging against disclosure-related adverse selection risk. Returning to Table 7, Panel C thus presents regressions of the difference in the U.S. and home spreads on the same set of regressors, only to find no evidence for such a differential change after the oral argument event.

6. Conclusion

This study examines capital markets' reaction to a legal change that abruptly curtailed the civil liability regime to which U.S.-listed foreign private issuers are subject. We exploit this event as a natural experiment for testing the legal bonding hypothesis as well as a broader,

opposite, hypothesis that rather than serving as a beneficial bonding mechanism for corporate governance self-improvement, this regime imposes a regulatory burden.

We fail to find any evidence consistent with the idea that the legal change ushered by the *Morrison* court somehow harmed U.S.-listed foreign issuers. In fact, we observe market reactions that are either positive or insignificant. We also find no evidence that the corporate governance and legal environment in the home countries of these issuers plays any positive role in explaining markets' reaction to this legal change, which denied the protection of U.S. civil liability to investors in foreign-located transactions. If anything, there is some evidence to the contrary. Finally, we fail to find any evidence that from their individual perspective, investors changed their trading behavior to secure the now-limited benefits of securities fraud class actions. These results challenge the legal bonding hypothesis, namely, the proposition that the U.S. legal regime—in particular, its civil antifraud liability regime as it is currently designed—may be used by foreign firms to compensate for home country corporate governance deficiencies. The evidence suggests that by signaling its intention to sever the ties to the U.S. civil liability regime (as well as to the public enforcement regime, as detailed above), the Supreme Court did not harm U.S.-listed foreign firms nor did it disgruntle individual investors. A cynic might quip that the parties who appear interested in this regime are insurers and lawyers.

Subject to the obvious need for more in-depth analysis, the market reaction we observe does not mean that civil liability in general *should* be abolished. Private enforcement of securities laws may be beneficial. The broad pattern of the current results does lend support to long-standing criticisms of the U.S. secondary market civil liability at it is currently structured. Which component of this regime may be particularly problematic—whether it is the fraud-on-the-market doctrine, or class action procedural rules, or another legal institution—clearly

warrants further research. Current deficiencies, by which insiders accused of civil misconduct rarely pay out of pocket to compensate outside investors, are troubling. The SEC's already weak enforcement was possibly further weakened by the *Morrison* decision, whether restricted to events prior to July 2010 or not. A system providing weak enforcement but entailing considerable costs may just not have been worthwhile. Instead, either a better designed system of civil liability that actually delivers targeted deterrence and compensation to aggrieved investors, and/or a system of SEC public enforcement that is far more active and vigilant, may be what is required for legal bonding to have teeth. Without that, reputational bonding, albeit an imperfect mechanism that relies on market sticks and rewards, can still explain any positive bonding benefits. Also, emerging economies that sought to piggy-back on U.S. legal bonding may need to reinvest in strengthening their own public enforcement at home in light of the *Morrison* decision.

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Tables

Table 1. Summary Statistics

This table reports summary statistics of our sample. Panel A reports the distribution of cross-listed FPIs by country as defined by the SEC. Panel B reports the distributions of country- and firm-level variables of cross-listed foreign private issuers (FPIs). N is the number of cross-listed FPIs in both Panels A and B. N varies for different variables in Panel B due to data availability. In Panel B, *Non-U.S. Market Cap* is the market value of equity of the FPI outside the U.S. divided by company market value at the end of February 2010. *Capital Expenditure* is capital expenditure as a percentage of total assets. *Current Leverage* is short-term debt as a percentage of total assets. *Fixed Assets Ratio* is property, plant, and equipment as a percentage of total assets. *Sales Growth* is the change in annual revenues. *Tobin's Q* is $(\text{market value of equity} + \text{total assets} - \text{common equity}) / \text{total assets}$. *Log (Total Assets)* is the logarithm of total assets. *Ownership Concentration* is the data item of closely held shares from Worldscope. *Disclosure* is an index of securities law disclosure rules and *Private Litigation* is an index of securities litigation rules, both from La Porta et al. (2006). *Anti-Director Rights* is an index of shareholder protection laws, and *Anti-Self-Dealing Rights* is an index of self-dealing regulation, both from Djankov et al. (2008). *Common Law* is a dummy taking 1 for a common law legal origin. *Public Enforcement* is the weighted size of staff of the securities regulation agency from Jackson and Roe (2009). *Rule of Law* is an index of legality from the World Bank Governance Indicators. *Log (GDP per capita)* is the logarithm of the GDP per capita of the home countries of individual FPIs. Country-level source data in Panel B vary in sample size according to the number of countries in the original data source as well as the number of countries with SEC-compliant FPIs. The sample data are from January 2008 through August 2010.

Panel A. Country Distribution

Country	N	Country	N	Country	N
Antigua and Barbuda	1	Greece	3	Norway	1
Argentina	13	Hong Kong	4	Panama	2
Australia	9	Hungary	1	Papua New Guinea	1
Belgium	2	India	13	Peru	1
Bermuda	17	Indonesia	2	Philippines	1
Brazil	14	Ireland	8	Portugal	1
British Virgin Islands	13	Israel	46	Russia	4
Canada	168	Italy	4	Singapore	1
Cayman Islands	63	Japan	21	South Africa	6
Chile	12	Liberia	1	South Korea	9
China	12	Luxembourg	5	Spain	5
Colombia	1	Marshall Islands	15	Sweden	1
Denmark	2	Mexico	21	Switzerland	6
Finland	1	Netherlands	15	Taiwan	6
France	9	Netherlands Antilles	1	Turkey	1
Germany	7	New Zealand	1	United Kingdom	32
				Total	583

Panel B. Variable Distributions

Variable	N	Mean	Median	Standard Deviation	5th Percentile	95th Percentile
Firm-Level Variables						
Non-U.S. Market Cap	431	0.62	0.81	0.37	0.00	1.00
Sales Growth	540	0.09	-0.06	1.84	-0.49	0.59
Capital Expenditure	574	0.06	0.04	0.07	0.00	0.18
Return on Equity	564	0.14	0.11	1.36	-0.43	0.59
Fixed Assets Ratio	580	0.34	0.26	0.30	0.00	0.87
Log(Total Assets)	580	13.94	14.21	3.59	6.29	19.13
Tobin's Q	579	1.68	1.00	5.72	0.21	3.91
Leverage	565	0.48	0.48	0.28	0.07	0.94
Country-Level Variables						
Disclosure	35	6.24	5.80	1.88	3.30	9.20
Private Litigation	35	0.52	0.66	0.24	0.11	1.00
Anti-Director Rights	40	3.39	3.50	1.09	1.50	5.00
Public Enforcement	19	12.14	6.17	14.74	0.43	59.59
Log(GDP Per Capita)	47	9.29	9.70	1.38	6.57	10.84

Table 2. The Abnormal Returns of Cross-Listed FPIs

This table reports the percentage abnormal returns of cross-listed FPIs and Brown and Warner (1985) t-statistics during the oral argument event. Sample FPIs are all from the NYSE, AMEX, or Nasdaq, have listings in both the U.S. and home countries, and are in the SEC's FPI compliance list. The sample in the U.S. and home countries is different only to the extent of data availability of stock returns. In Panel A, we present the results using the S&P 500 index and FPI-free world index as the benchmarks. We use market model adjusted returns to measure abnormal returns with the period from January 2008 to December 2009 as the estimation period. US Returns represents the U.S. abnormal returns of FPIs. Home Returns represents the home market abnormal returns. We construct the FPI-free world index by using all the firms, live or dead, outside of the U.S. in the Datastream database. Note that we exclude the home market returns of FPIs with SEC reporting obligations for the period during which they are cross-listed or OTC-traded in the U.S., as these firms are affected by the Supreme Court decision. We report for ADRs and ADRs plus direct listings, respectively. We report for each event day, as well as the whole event window of three trading days. Panel B is analogous to Panel A, except abnormal performance is measured using market adjusted instead of market model returns. # of Positives is the number of FPIs with positive abnormal returns out of the total number of sample FPIs with available data. ***, **, and * indicate that estimates are significant at the 1%, 5%, and 10% levels, respectively, according to the Brown and Warner t-statistics, which are reported under the heading of BW t-stat. Following Morck, Yeung, and Wu (2000), we trim the stock returns for cross-listed FPIs from Datastream and CRSP by excluding any daily return that exceeds 25% in absolute value. The data are from January 2008 through August 2010.

Panel A. Abnormal Returns

Date	U.S. Returns						Home Returns					
	ADRs			ADRs + Direct Listers			ADRs			ADRs + Direct Listers		
	Returns	BW t-stat.	# of Positives	Returns	BW t-stat.	# of Positives	Returns	BW t-stat.	# of Positives	Returns	BW t-stat.	# of Positives
Using S&P 500 as the Benchmark												
3/26/2010	0.46**	2.08		0.24	0.99		0.33	1.62		-0.05	-0.60	
3/29/2010	0.37**	2.39		0.45***	3.29		0.47***	3.03		0.68***	4.56	
3/30/2010	0.16	0.89		0.15	1.06		0.07	0.53		0.05	0.63	
Sum	0.99***	3.09	196/309	0.84***	3.09	351/583	0.87***	2.99	203/322	0.68**	2.64	349/582
Using FPI-Free World Index as the Benchmark												
3/26/2010	0.54**	2.01		0.3	1.24		0.4	1.56		0	-0.51	
3/29/2010	0.42**	2.11		0.43***	2.76		0.45**	2.36		0.57***	3.52	
3/30/2010	0.23	1.14		0.21	1.3		0.12	0.81		0.1	0.94	
Sum	1.17***	3.03	207/309	0.94***	3.06	361/583	0.97***	2.74	211/322	0.67**	2.28	351/582

Panel B. Market Adjusted Returns and Assuming Independence

Panel B. Market Adjusted Returns and Assuming Independence												
U.S. Returns							Home Returns					
Date	ADRs		# of Positives	ADRs + Direct Listers		# of Positives	ADRs		# of Positives	ADRs + Direct Listers		# of Positives
	Returns	t-stat.		Returns	t-stat.		Returns	t-stat.		Returns	t-stat.	
Using S&P 500 as the Benchmark												
3/26/2010	0.49**	2.23		0.24	1.12		0.36*	1.79		-0.05	-0.42	
3/29/2010	0.41**	2.53		0.42***	3.15		0.48***	2.93		0.59***	3.91	
3/30/2010	0.19	1.08		0.16	1.22		0.10	0.75		0.07	0.75	
Sum	1.09***	3.37	197/309	0.82***	3.17	354/583	0.94***	3.16	202/322	0.61**	2.45	348/582
Using FPI-Free World Index as the Benchmark												
3/26/2010	0.6**	2.33		0.35	2.10		0.48**	2.00		0.06	0.00	
3/29/2010	0.64***	3.09		0.65	3.88		0.71***	3.56		0.82***	5.00	
3/30/2010	0.27	1.46		0.24*	1.44		0.19	1.25		0.15	1.37	
Sum	1.51***	3.97	219/309	1.24	4.28		1.37***	3.93	225/322	1.03***	3.68	377/582

Table 3. Abnormal Returns of Cross-Listed FPIs Following Greenwood (2005)

This table reports the percentage abnormal returns of cross-listed FPIs following the approach used in Greenwood (2005). Unlike the analysis in Table 2, this approach does not assume sample company returns are independent, and corrects for dependence by using the covariance matrix of returns during the estimation period from January 2008 to December 2009. First, we calculate abnormal returns for sample FPIs and all companies in the S&P 500 index as of March 29, 2010 using the market model as described in Brown and Warner (1985). Next, we calculate the covariance matrix of abnormal returns for all companies, and create a dummy variable that takes 1 for sample FPIs and 0 for companies in the S&P 500 index (the control). This dummy variable is then used in an OLS regression to explain cumulative abnormal returns during the event period, but the standard errors are calculated using a GLS model and the observation covariance matrix of abnormal returns. We report the coefficient on the dummy variable under the heading Excess Return. This coefficient represents increase in returns of sample FPIs during the event period relative to the firms in the S&P 500 index. The t-statistic is calculating using the standard error from the GLS regression, and we assess its significance using the empirical distribution of the statistic during the estimation period. Panel A presents the results for U.S. returns for ADRs and ADRs plus direct listings, and likewise for the home market listing. Panel B repeats the analysis, but measures abnormal performance using market adjusted instead of market model returns. We find significant, positive abnormal returns for many samples that are robust to changes in the event window. Furthermore, in contradiction to the legal bonding hypothesis, we find higher abnormal returns for companies domiciled in emerging markets, which generally have weaker institutions. The data are from January 2008 through March 2010.

Panel A. Market Model Abnormal Returns with S&P 500 Benchmark

Time Window	U.S. Returns						Home Returns					
	ADRs			ADRs + Direct Listers			ADRs			ADRs + Direct Listers		
	Excess	S.E.	Test	Excess	S.E.	Test	Excess	S.E.	Test	Excess	S.E.	Test
Days (-1 to +1) - Baseline	1.09	0.85	1.28 **	0.82	1.02	0.80	0.94	0.94	1.00 *	0.61	1.19	0.51
Including Returns > 25%	1.09	0.89	1.22 **	0.82	1.08	0.76	0.94	0.96	0.98 *	0.52	1.23	0.42
Excluding Tax Havens	0.84	0.82	1.03 *	0.66	1.03	0.65	0.81	0.94	0.86	0.46	1.23	0.37
Emerging Markets	1.64	1.00	1.64 **	1.29	0.98	1.32 **	1.42	1.03	1.38 **	1.13	1.06	1.06 *
Days (-1, 0) - Baseline	0.90	0.85	1.05 *	0.66	1.02	0.64	0.84	0.94	0.89 *	0.54	1.19	0.45
Including Returns > 25%	0.90	0.89	1.01 *	0.66	1.08	0.61	0.84	0.96	0.87	0.45	1.23	0.36
Excluding Tax Havens	0.78	0.82	0.95 *	0.60	1.03	0.59	0.82	0.94	0.88	0.55	1.23	0.44
Emerging Markets	1.07	1.00	1.07 *	0.66	0.98	0.67	0.86	1.03	0.84	0.54	1.06	0.51
Days (0, +1) - Baseline	0.60	0.85	0.70	0.58	1.02	0.57	0.58	0.94	0.62	0.66	1.19	0.55
Including Returns > 25%	0.60	0.89	0.67	0.58	1.08	0.54	0.58	0.96	0.60	0.66	1.23	0.53
Excluding Tax Havens	0.39	0.82	0.48	0.42	1.03	0.41	0.42	0.94	0.45	0.50	1.23	0.41
Emerging Markets	1.21	1.00	1.22 *	1.09	0.98	1.12 *	1.26	1.03	1.22 *	1.12	1.06	1.06 *

Panel B. Market Adjusted Returns with S&P 500 Benchmark

Time Window	U.S. Returns						Home Returns					
	ADRs			ADRs + Direct Listers			ADRs			ADRs + Direct Listers		
	Excess	S.E.	Test	Excess	S.E.	Test	Excess	S.E.	Test	Excess	S.E.	Test
Days (-1 to +1) - Baseline	1.09	0.85	1.28 *	0.82	1.02	0.80	0.94	0.94	1.00	0.61	1.19	0.51
Including Returns > 25%	1.09	0.89	1.22 *	0.82	1.08	0.76	0.94	0.96	0.98	0.52	1.23	0.42
Excluding Tax Havens	0.84	0.82	1.03 *	0.66	1.03	0.65	0.81	0.94	0.86	0.46	1.23	0.37
Emerging Markets	1.64	1.00	1.64 **	1.29	0.98	1.32 *	1.42	1.03	1.38 *	1.13	1.06	1.06
Days (-1, 0) - Baseline	0.90	0.85	1.05	0.66	1.02	0.64	0.84	0.94	0.89	0.54	1.19	0.45
Including Returns > 25%	0.90	0.89	1.01	0.66	1.08	0.61	0.84	0.96	0.87	0.45	1.23	0.36
Excluding Tax Havens	0.78	0.82	0.95	0.60	1.03	0.59	0.82	0.94	0.88	0.55	1.23	0.44
Emerging Markets	1.07	1.00	1.07	0.66	0.98	0.67	0.86	1.03	0.84	0.54	1.06	0.51
Days (0, +1) - Baseline	0.60	0.85	0.70	0.58	1.02	0.57	0.58	0.94	0.62	0.66	1.19	0.55
Including Returns > 25%	0.60	0.89	0.67	0.58	1.08	0.54	0.58	0.96	0.60	0.66	1.23	0.53
Excluding Tax Havens	0.39	0.82	0.48	0.42	1.03	0.41	0.42	0.94	0.45	0.50	1.23	0.41
Emerging Markets	1.21	1.00	1.22	1.09	0.98	1.12	1.26	1.03	1.22	1.12	1.06	1.06

Table 4. Portfolio Abnormal Returns of Cross-Listed FPIs

This table reports the percentage abnormal returns of portfolios of cross-listed FPIs during the event period using multiple benchmarks. In all cases, we report three times the coefficient on an event period dummy variable (for three event days) and the associated *t*-statistic. Panel A presents results for an equal-weighted portfolio of ADRs using the S&P 500, and equal- and value-weighted FPI-free world benchmarks. We construct the FPI-free world index by using all the firms, live or dead, outside of the U.S. in the Datastream database. Note that we exclude the home market returns of FPIs with SEC reporting obligations for the period during which they are cross-listed or OTC-traded in the U.S., as these firms are affected by the Supreme Court decision. The standard errors used in the calculation of the *t*-statistics in Panel A are not corrected for heteroskedasticity because the small number of event days presents difficulties for using robust standard errors (see Long and Ervin (2000)). Panel B presents results using an equal-weighted portfolio and robust standard errors for comparison. Note that the results using robust errors are *more* significant than the results using non-robust errors due to a negative relationship between the event dummy variable and the residuals. The coefficients in both panels represent the abnormal returns of sample FPIs during the event period. In all cases we fail to find a negative reaction associated with the Supreme Court's decision in *Morrison*, which is inconsistent with the legal bonding hypothesis. The data are from January 2008 through August 2010.

Panel A. Value-Weighted Portfolio

	U.S. Returns		Home Returns		U.S. Returns		Home Returns		U.S. Returns		Home Returns		
	S&P 500 Index		S&P 500 Index		FPI-Free Value-Weighted World Index		FPI-Free Value-Weighted World Index		FPI-Free Equal-Weighted World Index		FPI-Free Equal-Weighted World Index		
	(1)	(2)	(3)	(4)	(5)	(6)							
	Ret.	t-stat.	Ret.	t-stat.	Ret.	t-stat.	Ret.	t-stat.	Ret.	t-stat.	Ret.	t-stat.	
Days (-1 to +1) - Baseline	1.01	0.68	0.90	0.56	1.11	0.35	0.93	0.33	0.75	0.23	0.54	0.18	
Including Returns > 25%	0.86		0.78	0.47	0.97	0.29	0.81	0.28	0.59	0.17	0.40	0.13	
Excluding Tax Havens	0.75		0.76	0.48	0.87	0.27	0.78	0.29	0.52	0.15	0.40	0.14	
Emerging Markets	1.54	0.56	1.36	0.76	1.64	0.49	1.40	0.47	1.27	0.37	1.02	0.33	
		0.53											
Days (-1, 0) - Baseline	1.26	0.88	0.70	1.24	0.63	1.37	0.35	1.23	0.36	0.87	0.21	0.69	0.19
Including Returns > 25%	1.10		1.10	0.54	1.21	0.30	1.10	0.31	0.69	0.16	0.54	0.14	
Excluding Tax Havens	1.06		1.22	0.63	1.19	0.30	1.20	0.36	0.71	0.17	0.67	0.19	
Emerging Markets	1.50	0.59	1.24	0.57	1.60	0.39	1.27	0.35	1.08	0.26	0.74	0.20	
		0.62											
Days (0, +1) - Baseline	0.81	0.70	0.45	0.84	0.43	0.89	0.23	0.82	0.24	0.44	0.11	0.33	0.09
Including Returns > 25%	0.66		0.71	0.35	0.74	0.18	0.69	0.19	0.26	0.06	0.18	0.05	
Excluding Tax Havens	0.48		0.60	0.31	0.58	0.15	0.56	0.17	0.14	0.03	0.08	0.02	
Emerging Markets	1.71	0.35	1.83	0.84	1.79	0.44	1.84	0.50	1.32	0.31	1.36	0.36	
		0.28											
		0.80											

Panel B. Equal-Weighted Portfolio with Robust Standard Errors

	U.S. Returns		Home Returns		U.S. Returns		Home Returns	
	S&P 500 Index		S&P 500 Index		FPI-Free Value-Weighted World Index		FPI-Free Value-Weighted World Index	
	(1)	(2)	(3)	(4)				
	Ret.	t-stat.	Ret.	t-stat.	Ret.	t-stat.	Ret.	t-stat.
Days (-1 to +1) - Baseline	1.01 ***	4.15	0.90 ***	2.85	1.11 ***	3.37	0.93 ***	2.83
Including Returns > 25%	0.86 ***	3.56	0.78 **	2.53	0.97 ***	2.87	0.81 **	2.48
Excluding Tax Havens	0.75 **	2.53	0.76 *	1.94	0.87 **	2.29	0.78 *	1.95
Emerging Markets	1.54 ***	7.74	1.36 ***	3.14	1.64 ***	5.90	1.40 ***	3.25
Days (-1, 0) - Baseline	1.26 ***	8.74	1.24 ***	6.36	1.37 ***	4.91	1.23 ***	5.55
Including Returns > 25%	1.10 ***	6.78	1.1 ***	5.97	1.21 ***	4.02	1.10 ***	4.79
Excluding Tax Havens	1.06 ***	5.84	1.22 ***	8.22	1.19 ***	3.88	1.20 ***	5.73
Emerging Markets	1.50 ***	5.83	1.24 **	2.02	1.60 ***	5.11	1.27 **	2.19
Days (0, +1) - Baseline	0.81 ***	3.26	0.84 *	1.87	0.89 ***	2.77	0.82 *	1.96
Including Returns > 25%	0.66 ***	2.82	0.71	1.64	0.74 **	2.32	0.69 *	1.71
Excluding Tax Havens	0.48 *	1.72	0.60	1.10	0.58	1.62	0.56	1.15
Emerging Markets	1.71 ***	11.54	1.83 ***	8.18	1.79 ***	6.92	1.84 ***	7.11

Table 5. Abnormal Returns of Cross-Listed FPIs Using Matched Samples

This table reports the percentage abnormal returns of cross-listed FPIs during the event period using a foreign, non-cross-listed peer company for each sample firm. In Panel A, we identify the publicly-traded peer firm for each sample FPI that is closest in terms of market capitalization, book-to-market ratio, or total assets. We draw peer firms domiciled in the same country and operating within the same industry as the sample FPI. In columns (1) and (2) we calculate market model returns for the sample FPIs using the peer firm as a benchmark, and *t*-statistics assuming independence as described by Brown and Warner (1985). For columns (3) and (4) we create an equal-weighted portfolio of all peer firms that is similar to the group of sample companies and use it as the benchmark for all sample FPIs. We find positive abnormal returns during the event that are robust to changes in the method of industry classification used for matching (GICS versus SIC) and the definition of the event window. The coefficients represent the mean abnormal return of sample FPIs over the peer firm. In Panel B we employ a propensity score matching approach that identifies the best peer firm for each sample company using market capitalization, book-to-market ratio (B/M), and total assets. The propensity score approach relies on a probit model that calculates the probability of a firm being in the sample FPI group based on market capitalization, book-to-market ratio, and total assets. The peer firm then becomes the foreign company without a cross-listing that is closest to the sample FPI in terms of propensity score. We then repeat the approach used in Panel A to calculate abnormal returns and Brown and Warner *t*-statistics. The data are from January 2008 through August 2010.

Panel A. Sequential Matching

	U.S. Individual Matches		Home Individual Matches		U.S. Equal-Weighted Peer Index		Home Equal-Weighted Peer Index	
	(1)	(2)	(3)	(4)	Ret.	t-stat	Ret.	t-stat
	Ret.	t-stat	Ret.	t-stat	Ret.	t-stat	Ret.	t-stat
Days (-1 to +1)								
Matching by: Country and 2-digit GICS Industry								
Market Capitalization	1.24 ***	3.13	1.17 ***	3.12	1.56 ***	4.32	1.41 ***	4.02
Book-to-Market	1.37 ***	3.33	1.3 ***	3.29	1.59 ***	4.06	1.85 ***	4.92
Assets	1.26 ***	3.10	1.16 ***	3.00	1.71 ***	4.21	1.41 ***	4.07
Matching by: Country and 3-Digit SIC Industry								
Market Capitalization	0.96 **	2.20	0.93 **	2.32	1.57 ***	3.88	1.40 ***	3.39
Book-to-Market	0.96 **	2.12	1.06 **	2.56	1.91 ***	4.12	1.01 **	2.42
Assets	0.93 **	2.13	0.9 **	2.26	1.56 ***	3.77	1.62 ***	3.63
Days (-1, 0)								
Matching by: Country and 2-digit GICS Industry								
Market Capitalization	1.15 ***	3.41	1.13 ***	3.56	1.39 ***	4.33	1.61 ***	5.50
Book-to-Market	1.26 ***	3.64	1.26 ***	3.84	1.45 ***	4.48	1.62 ***	5.21
Assets	1.19 ***	3.48	1.18 ***	3.68	1.73 ***	5.57	1.54 ***	4.92
Matching by: Country and 3-Digit SIC Industry								
Market Capitalization	0.94 **	2.44	0.90 **	2.54	1.07 ***	3.01	1.79 ***	5.36
Book-to-Market	1.02 **	2.53	1.10 ***	3.04	1.38 ***	3.76	1.40 ***	4.14
Assets	0.95 **	2.48	0.93 ***	2.71	1.33 ***	3.46	1.60 ***	4.85

Panel A (continued). Sequential Matching

	USA Individual Matches		Home Individual Matches		USA Equal-Weighted Peer Index		Home Equal-Weighted Peer Index	
	(1)		(2)		(3)		(4)	
	Ret.	t-stat	Ret.	t-stat	Ret.	t-stat	Ret.	t-stat
Days (0, +1)								
Matching by: Country and 2-digit GICS Industry								
Market Capitalization	0.82 ***	2.87	0.85 ***	3.04	1.11 ***	3.89	1.11 ***	4.27
Book-to-Market	0.90 ***	2.98	0.95 ***	3.24	0.78 ***	2.80	1.46 ***	5.18
Assets	0.79 ***	2.64	0.77 ***	2.65	0.91 ***	3.49	0.81 ***	3.05
Matching by: Country and 3-Digit SIC Industry								
Market Capitalization	0.78 **	2.49	0.81 ***	2.72	1.43 ***	4.37	1.16 ***	3.71
Book-to-Market	0.76 **	2.33	0.88 ***	2.83	1.00 ***	2.67	1.50 ***	4.56
Assets	0.81 **	2.34	0.78 **	2.52	1.12 ***	3.33	0.98 ***	3.32

Panel B. Nearest Neighbor Matching

	USA Individual Matches		Home Individual Matches		USA Equal-Weighted Peer Index		Home Equal-Weighted Peer Index	
	(1)		(2)		(3)		(4)	
	Ret.	t-stat	Ret.	t-stat	Ret.	t-stat	Ret.	t-stat
Days (-1 to +1)								
Cap, B/M, Country	1.61 **	2.31	1.65 ***	2.68	1.40 *	1.91	1.94 ***	3.37
Cap, Assets, Country	1.46 *	1.92	1.51 **	2.19	1.50 **	2.12	1.93 ***	3.10
Cap, Assets, B/M, Country	1.55 **	1.98	1.78 **	2.55	1.70 **	2.11	1.88 ***	2.99
Assets, B/M, Country	1.80 ***	2.89	1.86 ***	3.13	1.90 ***	2.98	1.79 ***	3.32
Days (-1, 0)								
Cap, B/M, Country	1.46 **	2.38	1.54 ***	2.99	2.16 ***	3.67	1.54 ***	3.19
Cap, Assets, Country	1.40 **	2.21	1.41 **	2.51	2.04 ***	3.49	2.07 ***	4.14
Cap, Assets, B/M, Country	1.38 **	2.00	1.53 ***	2.58	1.82 ***	2.99	1.79 ***	3.16
Assets, B/M, Country	1.22 ***	2.80	0.94 **	2.13	1.27 **	2.32	1.78 ***	3.77
Days (0, +1)								
Cap, B/M, Country	1.19 **	2.36	1.30 ***	2.76	1.36 ***	2.66	1.60 ***	3.32
Cap, Assets, Country	1.13 **	2.15	1.20 **	2.41	1.23 **	2.48	1.29 ***	2.84
Cap, Assets, B/M, Country	1.15 **	2.08	1.34 ***	2.58	1.60 ***	2.93	1.86 ***	3.88
Assets, B/M, Country	1.30 ***	2.71	1.36 ***	2.89	1.19 ***	2.69	1.54 ***	3.37

Table 6. Cross-Sectional Regression Analysis of Abnormal Returns

This table reports the results of cross-sectional regressions where country- and firm-level variables of cross-listed foreign private issuers (FPIs) are used to explain cross-sectional variation in the abnormal returns of individual FPIs during the oral argument event. All the coefficient estimates are in percentage terms. Panels A-B present piecewise linear regression results. *Non-U.S. Market Cap* is one minus the ratio of the market value of equity in the United States divided by the non-U.S. company market value at the end of February 2010. *Non-U.S. Market Cap = 0* is an indicator variable that is 1 if Non-U.S. Market Cap is equal to zero, and 0 otherwise; $0 < \text{Non-U.S. Market Cap} \leq 60\%$ equals to Non-U.S. Market Cap if Non-U.S. Market Cap is between 0 and 60%, and 0 otherwise; $60\% < \text{Non-U.S. Market Cap} \leq 82\%$ equals to Non-U.S. Market Cap if Non-U.S. Market Cap is between 60% and 82%, and 0 otherwise; $82\% < \text{Non-U.S. Market Cap}$ equals to Non-U.S. Market Cap if Non-U.S. Market Cap is between 82% and 100%, and 0 otherwise. *Disclosure* is an index of securities law disclosure rules and *Private Litigation* is an index of securities litigation rules, both from La Porta et al. (2006). *Anti-Director Rights* is an index of shareholder protection laws from Djankov et al. (2008). *Public Enforcement* is the weighted size of staff of the securities regulation agency from Jackson and Roe (2009). *Tobin's q* is (market value of equity + total assets - common equity) / total assets. *Fixed Asset Intensity* is property, plant, and equipment as a percentage of total assets. *Log (Total Assets)* is the logarithm of total assets. *Return on Equity* is net income as a percentage of common equity. *Capital Expenditure* is capital expenditure as a percentage of total assets. *Sales Growth* is one-year sales growth and controls for growth opportunities. *Leverage* is short-term debt as a percentage of total assets. *Log (GDP per capita)* is the logarithm of the GDP per capita of the home countries of individual FPIs. We estimate a country random-effects model to control for potential cross-sectional correlations among FPIs within each country. ***, **, and * indicate that z-statistics are significant at the 1%, 5%, and 10% levels, respectively, according to bootstrapped standard errors using 5,000 replications. *N* is the number of observations. The data are from January 2008 through August 2010.

Panel A. Piecewise Linear Regressions, Using S&P500 as the Benchmark

	U.S. Returns				Home Market Returns			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Non-U.S. Market Cap								
0	1.58 (1.12)	1.58 (1.12)	1.43 (1.09)	2.98* (1.69)	1.03 (0.76)	0.97 (0.75)	0.91 (0.73)	1.53 (0.85)
(0, 0.60]	2.21 (1.26)	2.25 (1.35)	1.93 (1.16)	2.77 (1.29)	2.30 (1.55)	2.3 (1.55)	2.24 (1.56)	3.65** (2.29)
(0.60, 0.82]	-2.66 (-0.38)	-2.58 (-0.39)	-2.08 (-0.32)	7.00 (1.26)	4.42 (1.28)	4.44 (1.32)	4.35 (1.24)	6.98 (1.50)
(0.82, 1]	9.27** (2.36)	9.63** (2.41)	9.02** (2.31)	8.15 (1.54)	9.48*** (2.69)	8.35** (2.34)	10.48*** (2.84)	8.30* (1.78)
Disclosure	0.06 (0.53)				-0.10 (-1.04)			
Private Litigation		0.40 (0.49)				-1.15* (-1.88)		
Anti-Director Rights			-0.18 (-0.99)				-0.30* (-1.89)	
Public Enforcement				-0.02 (-0.94)				-0.05*** (-2.77)
Tobin's q	-0.06 (-0.31)	-0.06 (-0.33)	-0.01 (-0.04)	-0.01 (-0.03)	-0.07 (-0.52)	-0.07 (-0.49)	-0.03 (-0.22)	0.07 (0.28)
Fixed Asset Intensity	0.52 (0.53)	0.46 (0.47)	1.04 (1.05)	1.55 (1.61)	1.06 (1.38)	1.2 (1.55)	1.41* (1.87)	1.79** (1.98)
Log (Total Assets)	0.19 (1.45)	0.19 (1.44)	0.18 (1.41)	0.15 (0.91)	0.06 (0.64)	0.06 (0.62)	0.05 (0.58)	-0.04 (-0.33)
Return on Equity	0.08 (0.29)	0.08 (0.28)	0.06 (0.23)	-0.18 (-0.37)	-0.02 (-0.15)	-0.02 (-0.2)	-0.04 (-0.36)	-0.12 (-0.25)
Capital Expenditure	5.72 (1.33)	5.89 (1.37)	4.63 (1.02)	9.44* (1.95)	5.93 (1.5)	5.67 (1.45)	5 (1.29)	9.14** (2.02)
Sales Growth	0.18 (0.82)	0.18 (0.8)	0.15 (0.7)	0.19 (0.81)	0.15 (0.76)	0.15 (0.8)	0.13 (0.62)	0.13 (0.68)
Leverage	-1.49 (-1.22)	-1.54 (-1.27)	-0.93 (-0.78)	0.12 (0.09)	-0.93 (-0.99)	-0.8 (-0.82)	-0.42 (-0.45)	0.77 (0.60)
Log (GDP per Capita)	-0.16 (-0.68)	-0.18 (-0.67)	-0.38* (-1.84)	0.22 (0.74)	0.08 (0.4)	0.15 (0.7)	-0.23 (-1.25)	0.58** (2.06)
Intercept	-1.83 (-0.72)	-1.46 (-0.54)	1.19 (0.47)	-5.82* (-1.76)	-1.63 (-0.79)	-2.24 (-1.05)	1.67 (0.78)	-6.2** (-2.03)
N	300	300	322	188	286	286	307	189
p-value	0.21	0.16	0.04	0.11	0.13	0.06	0.00	0.02
R-Squared	0.07	0.07	0.09	0.10	0.08	0.08	0.11	0.15
Adjusted R-Squared	0.03	0.03	0.05	0.03	0.03	0.37	0.07	0.08

Panel B. Piecewise Linear Regressions, Value-Weighted FPI-free World Index as the Benchmark

	U.S. Returns				Home Market Returns			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Non-U.S. Market Cap								
0	1.57 (1.09)	1.56 (1.09)	1.43 (1.07)	3.04* (1.69)	0.97 (0.71)	0.90 (0.71)	0.89 (0.71)	1.51 (0.84)
(0, 0.60]	2.18 (1.26)	2.22 (1.31)	1.93 (1.12)	2.76 (1.34)	2.32 (1.58)	2.32 (1.55)	2.24 (1.56)	3.69** (2.27)
(0.60, 0.82]	-2.06 (-0.3)	-1.96 (-0.28)	-1.37 (-0.2)	7.68 (1.42)	5.20 (1.54)	5.26 (1.59)	5.17 (1.51)	7.51 (1.59)
(0.82, 1]	9.44 (2.38)	9.77** (2.43)	9.38** (2.3)	8.55* (1.65)	9.92*** (2.79)	8.59** (2.35)	11.17*** (3.08)	8.88* (1.84)
Disclosure	0.06 (0.52)				-0.11 (-1.15)			
Private Litigation		0.38 (0.46)				-1.33** (-2.17)		
Anti-Director Rights			-0.20 (-1.1)				-0.31* (-1.87)	
Public Enforcement				-0.02 (-0.95)				-0.05*** (-2.94)
Tobin's q	-0.05 (-0.27)	-0.05 (-0.27)	-0.01 (-0.01)	0.01 (0.02)	-0.07 (-0.49)	-0.07 (-0.49)	-0.03 (-0.19)	0.10 (0.43)
Fixed Asset Intensity	0.40 (0.4)	0.34 (0.35)	0.95 (0.95)	1.42 (1.46)	0.91 (1.2)	1.08 (1.4)	1.32* (1.69)	1.67* (1.84)
Log (Total Assets)	0.22 (1.62)	0.21 (1.59)	0.2 (1.61)	0.17 (1.08)	0.08 (0.83)	0.08 (0.81)	0.08 (0.83)	-0.02 (-0.14)
Return on Equity	0.08 (0.29)	0.08 (0.28)	0.06 (0.24)	-0.18 (-0.34)	-0.02 (-0.17)	-0.02 (-0.21)	-0.04 (-0.4)	-0.10 (-0.19)
Capital Expenditure	5.42 (1.25)	5.58 (1.29)	4.36 (0.95)	9.16* (1.88)	5.73 (1.45)	5.45 (1.4)	4.73 (1.2)	8.62* (1.93)
Sales Growth	0.14 (0.63)	0.14 (0.62)	0.12 (0.55)	0.16 (0.65)	0.10 (0.48)	0.11 (0.51)	0.08 (0.39)	0.10 (0.45)
Leverage	-1.41 (-1.17)	-1.46 (-1.15)	-0.81 (-0.69)	0.23 (0.16)	-1.05 (-1.08)	-0.91 (-0.93)	-0.54 (-0.58)	0.76 (0.57)
Log (GDP per Capita)	-0.20 (-0.83)	-0.21 (-0.79)	-0.43** (-2.09)	0.18 (0.61)	0.03 (0.14)	0.11 (0.53)	-0.31* (-1.67)	0.54* (1.91)
Intercept	-1.72 (-0.67)	-1.36 (-0.5)	1.55 (0.62)	-5.68* (-1.72)	-1.26 (-0.6)	-1.94 (-0.93)	2.16 (1.01)	-6.12** (-2.03)
N	300	300	322	188	286	286	307	189
p-value	0.18	0.17	0.02	0.11	0.16	0.02	0.00	0.02
R-Squared	0.07	0.07	0.09	0.10	0.07	0.09	0.11	0.14
Adjusted R-Squared	0.03	0.03	0.05	0.03	0.03	0.05	0.07	0.08

Table 7. Bid-Ask Spreads of Cross-Listed FPIs

This table reports the results of OLS regressions where country-level variables of cross-listed foreign private issuers (FPIs) are used in junction with a post-event dummy to explain the bid-ask spreads of the U.S. and home market issues. In Panel A, the dependent variable is the difference between the ask and bid prices of the U.S. issues. The coefficient estimates are in dollars. *Post-Event Dummy* is a dummy variable that is 1 for dates from March 31, 2010 to August 31, 2010 and 0 for dates from January 1, 2010 to March 25, 2010. In Panel B, the dependent variable is the bid-ask spread of the home market issue. In Panel C, the dependent variable is the difference in the U.S. and foreign market bid-ask spreads. *Disclosure* is an index of securities law disclosure rules and *Private Litigation* is an index of securities litigation rules, both from La Porta et al. (2006). *Anti-Director Rights* is an index of shareholder protection laws from Djankov et al. (2008). *Public Enforcement* is the weighted size of staff of the securities regulation agency from Jackson and Roe (2009). The coefficients are mainly insignificant, and illustrate that the spreads of the U.S. and home market issues were unaffected by the oral arguments in *Morrison*. Standard errors are clustered by firm. ***, **, and * indicate that *t*-statistics are significant at the 1%, 5%, and 10% levels, respectively. *N* is the number of observations. The data are from January 2010 through August 2010.

Panel A. United States Bid-Ask Spreads

	(1)	(2)	(3)	(4)	(5)	(6)
Post-Event Dummy	0.00 (0.00)	0.00 (0.00)	0.00 (0.01)	0.01 (0.01)	-0.04 (0.04)	0.01 (0.01)
Non-U.S. Market Cap.						
(0, 0.60]		-0.02** (0.01)	-0.03* (0.01)	-0.03* (0.01)	-0.03* (0.01)	-0.04* (0.02)
(0.60, 0.82]		-0.02* (0.01)	-0.03* (0.01)	-0.03* (0.01)	-0.03* (0.01)	-0.05** (0.02)
(0.82, 1]		0.03* (0.01)	0.01 (0.02)	0.00 (0.02)	0.01 (0.02)	-0.00 (0.02)
Disclosure			-0.01* (0.00)			
Private Litigation				-0.06* (0.02)		
Anti-Director Rights					-0.02* (0.01)	
Public Enforcement						0.00 (0.00)
Post-Event*Disclosure			0 (0.00)			
Post-Event*Private Litigation				0.00 (0.01)		
Post-Event*Anti-Director Rights					0.01 (0.01)	
Post-Event*Public Enforcement						0.00 (0.00)
Intercept	0.05*** (0.01)	0.04*** (0)	0.11*** (0.03)	0.10*** (0.02)	0.13*** (0.04)	0.10*** (0.02)
N	92740	70511	53913	53913	57497	35162
R-squared	0.00	0.10	0.07	0.07	0.08	0.05
p-value	0.30	0.00	0.00	0.00	0.00	0.00

Panel B. Foreign (Home) Market Bid-Ask Spreads

	(1)	(2)	(3)	(4)	(5)	(6)
Post-Event Dummy	0.00 (0.01)	-0.01 (0.00)	0.00 (0.01)	0.00 (0.01)	0.00 (0.01)	0.01 (0.01)
Non-U.S. Market Cap. (0, 0.60]		-0.12* (0.06)	-0.09 (0.07)	-0.09 (0.07)	-0.06 (0.07)	-0.08 (0.07)
(0.60, 0.82]		-0.27*** (0.04)	-0.17** (0.06)	-0.17** (0.06)	-0.15* (0.06)	-0.16* (0.06)
(0.82, 1]		-0.32*** (0.04)	-0.20*** (0.06)	-0.20** (0.06)	-0.20*** (0.06)	-0.17* (0.07)
Disclosure			-0.01 (0.00)			
Private Litigation				-0.02 (0.03)		
Anti-Director Rights					-0.02 (0.01)	
Public Enforcement						0.00 (0.00)
Post-Event*Disclosure			0.00 (0.00)			
Post-Event*Private Litigation				0.01 (0.01)		
Post-Event*Anti-Director Rights					0.00 (0.00)	
Post-Event*Public Enforcement						0.00 (0.00)
Intercept	0.19*** (0.02)	0.37*** (0.04)	0.36*** (0.04)	0.26*** (0.07)	0.30*** (0.07)	0.22** (0.07)
N	81364	61034	61034	46176	49263	28190
R-squared	0.00	0.01	0.01	0.02	0.01	0.02
p-value	0.90	0.00	0.00	0.00	0.00	0.00

Panel C. U.S./ Foreign (Home) Market Difference in Bid-Ask Spreads

	(1)	(2)	(3)	(4)	(5)	(6)
Post-Event Dummy	0.00	-0.01	0.00	-0.01	0.00	0.01
	-0.01	0.00	-0.01	-0.01	-0.01	-0.01
Non-U.S. Market Cap.						
(0, 0.60]		-0.10	-0.06	-0.06	-0.03	-0.05
		-0.06	-0.07	-0.07	-0.07	-0.07
(0.60, 0.82]		-0.26***	-0.14*	-0.14*	-0.13	-0.11
		-0.04	-0.07	-0.07	-0.06	-0.07
(0.82, 1]		-0.33***	-0.20**	-0.19**	-0.20**	-0.15*
		-0.04	-0.06	-0.07	-0.06	-0.07
Disclosure			0.00			
			0.00			
Private Litigation				0.03		
				-0.04		
Anti-Director Rights					-0.01	
					-0.01	
Public Enforcement						0.00
						0.00
Post-Event*Disclosure			0.00			
			0.00			
Post-Event*Private Litigation				0.01		
				-0.01		
Post-Event*Anti-Director Rights					0.00	
					0.00	
Post-Event*Public Enforcement						0.00
						0.00
Intercept	0.15***	0.33***	0.18*	0.16*	0.23**	0.14
	-0.02	-0.04	-0.07	-0.07	-0.07	-0.07
N	80159.00	60275.00	45526.00	45526.00	48587.00	27841.00
R-squared	0.00	0.11	0.08	0.08	0.10	0.05
p-value	0.60	0.00	0.00	0.00	0.00	0.04

Table 8. Location of Trading in Stocks of Cross-Listed FPIs

This table reports the results of OLS regressions where country-level variables of cross-listed foreign private issuers (FPIs) are used in conjunction with a post-event dummy to explain the proportion of total monthly trading volume that occurs on U.S. exchanges. The dependent variable is the sum of daily trading volume over each month that occurs in the United States divided by the sum of world (including U.S.) volume. All the coefficient estimates are in percentage terms, and represent the change in the share of total volume attributed to the U.S. associated with the independent variable. *Non-U.S. Market Cap* is one minus the ratio of the market value of equity in the United States divided by the non-U.S. company market value at the end of February 2010. *Non-U.S. Market Cap = 0* is an indicator variable that is 1 if Non-U.S. Market Cap is equal to zero, and 0 otherwise; $0 < \text{Non-U.S. Market Cap} \leq 60\%$ equals to Non-U.S. Market Cap if Non-U.S. Market Cap is between 0 and 60%, and 0 otherwise; $60\% < \text{Non-U.S. Market Cap} \leq 82\%$ equals to Non-U.S. Market Cap if Non-U.S. Market Cap is between 60% and 82%, and 0 otherwise; $82\% < \text{Non-U.S. Market Cap}$ equals to Non-U.S. Market Cap if Non-U.S. Market Cap is between 82% and 100%, and 0 otherwise. *Post-Event Dummy* is a dummy variable that is 1 for dates from March 31, 2010 to December 31, 2010 and 0 for dates from January 1, 2010 to March 25, 2010. *Disclosure* is an index of securities law disclosure rules and *Private Litigation* is an index of securities litigation rules, both from La Porta et al. (2006). *Anti-Director Rights* is an index of shareholder protection laws from Djankov et al. (2008). *Public Enforcement* is the weighted size of staff of the securities regulation agency from Jackson and Roe (2009). Standard errors are clustered by firm. ***, **, and * indicate that *t*-statistics are significant at the 1%, 5%, and 10% levels, respectively. *N* is the number of observations. The data are from January 2010 through December 2010.

	(1)	(2)	(3)	(4)	(5)
Post-Event Dummy	0.01 (0.00)	0.01 (0.01)	0.01 (0.01)	-0.01 (0.01)	0.01 (0.01)
Non-U.S. Market Cap.					
(0, 0.60]	-0.19*** (0.05)	0.15 (0.13)	0.15 (0.13)	0.16 (0.12)	0.17 (0.14)
(0.60, 0.82]	-0.34*** (0.06)	0.00 (0.13)	-0.00 (0.13)	0.02 (0.12)	0.06 (0.14)
(0.82, 1]	-0.57*** (0.05)	-0.24 (0.13)	-0.24 (0.12)	-0.19 (0.12)	-0.20 (0.14)
Disclosure		-0.04*** (0.01)			
Private Litigation			-0.21*** (0.06)		
Anti-Director Rights				0.04* (0.02)	
Public Enforcement					0.00 (0.00)
Post-Event*Disclosure		0.00 (0.00)			
Post-Event*Private Litigation			0.00 (0.01)		
Post-Event*Anti-Director Rights				0.00 (0.00)	
Post-Event*Public Enforcement					0.00 (0.00)
Intercept (0 Non-U.S. Market Cap.)	0.87*** (0.04)	0.82*** (0.16)	0.67*** (0.13)	0.35** (0.13)	0.54*** (0.15)
N	4617	3760	3760	4016	2425
R-squared	0.32	0.22	0.21	0.22	0.20
p-value	0.00	0.00	0.00	0.00	0.00

Table 9. Price Differences between U.S. and Home Markets

This table reports the results of OLS regressions where country-level variables of cross-listed foreign private issuers (FPIs) are used in conjunction with a post-event dummy to explain the price premium of U.S. listings relative to the home market listing. In Panel A, the dependent variable is the dollar difference between the U.S. and home issue prices (adjusted for currency, quotation units, and bundling ratios). The coefficient estimates are in dollars and represent the change in the difference between the U.S. and home market prices attributable to a post-event dummy. *Post-Event Dummy* is a dummy variable that is 1 for dates from March 31, 2010 to August 31, 2010 and 0 for dates from January 1, 2010 to March 25, 2010. The first part of Panel A presents results using individual firm data and clustered standard errors, whereas the second regression uses the mean difference between U.S. and home market prices for each day as the dependent variable. Panel B introduces country-level variables into the analysis to control for differences in home market regulatory environment that may affect price premia. The dependent variable is the U.S. price divided by the home market price, multiplied by 100. Coefficients therefore represent the change in the U.S. price expressed as a percentage of the home market price. *Disclosure* is an index of securities law disclosure rules and *Private Litigation* is an index of securities litigation rules, both from La Porta et al. (2006). *Anti-Director Rights* is an index of shareholder protection laws from Djankov et al. (2008). *Public Enforcement* is the weighted size of staff of the securities regulation agency from Jackson and Roe (2009). The negative coefficient on the post-event dummy indicates a reduction in the price premium of the U.S. shares. The legal bonding hypothesis predicts that shares purchased on a U.S. exchange would become more valuable owing to the legal rights uniquely assigned to those shares post-Morrison. The negative coefficient is therefore inconsistent with this hypothesis. Standard errors are clustered by firm. Panel C uses the method described in Gagnon and Karolyi (2011), which defines the dependent variable to be the equal-weighted mean difference between the U.S. and home market returns. As in Panel B, we fail to find a significant increase in the returns to the U.S. shares relative to the home market shares in our sample. ***, **, and * indicate that *t*-statistics are significant at the 1%, 5%, and 10% levels, respectively. *N* is the number of observations. The data are from January 2010 through August 2010.

Panel A. Comparison of U.S. and Home Prices

Price Difference			
	Coef.	Std. Err.	t-stat
Post-Event Dummy	-0.01	0.05	-0.15
Intercept	0.36***	0.07	4.85

N = 87,050; 557 clusters at issue level

R-squared = 0.0

p-value = 0.88

Mean Price Difference			
	Coef.	Std. Err.	t-stat
Post-Event Dummy	-0.01	0.04	-0.33
Intercept	0.36***	0.03	12.03

N = 165 days

R-squared = 0.0

p-value = 0.75

Panel B. US Price as Percentage of Home Price, with Clustered Standard Errors

	(1)	(2)	(3)	(4)	(5)	(6)
Post-Event Dummy	-0.15** (0.04)	-0.21*** (0.05)	-0.64** (0.24)	-0.35* (0.17)	-0.25 (0.29)	-0.34* (0.17)
Non-U.S. Market Cap.						
(0, 0.60]		-1.21*** (0.24)	-0.88* (0.42)	-0.92* (0.39)	-0.97* (0.40)	-1.03* (0.48)
(0.60, 0.82]		-1.49*** (0.29)	-1.03* (0.45)	-1.08* (0.43)	-1.13** (0.43)	-1.39** (0.53)
(0.82, 1]		-1.24*** (0.26)	-0.99* (0.43)	-1.05* (0.41)	-0.84* (0.42)	-1.20* (0.53)
Disclosure			-0.28** (0.09)			
Private Litigation				-1.43** (0.47)		
Anti-Director Rights					-0.04 (0.15)	
Public Enforcement						-0.04*** (0.01)
Post-Event*Disclosure			0.06 (0.03)			
Post-Event*Private Litigation				0.18 (0.20)		
Post-Event*Anti-Director Rights					0.00 (0.07)	
Post-Event*Public Enforcement						0.00 (0.00)
Intercept	100.91*** (0.09)	101.98*** (0.20)	103.69*** (0.80)	102.63*** (0.54)	101.75*** (0.71)	102.82*** (0.57)
N	87050	65347	50527	50527	53450	33193
Clusters	557	419	321	321	340	210
R-squared	0.00	0.03	0.03	0.03	0.01	0.07
p-value	0.00	0.00	0.00	0.00	0.00	0.00

Panel C. Return Differentials of ADRs + Direct Listers with Non-Robust Standard Errors

	S&P 500 Benchmark				FPI-Free Value-Weighted World Index			
	Equal-Weighted		Value-Weighted		Equal-Weighted		Value-Weighted	
	Ret	t-stat	Ret	t-stat	Ret	t-stat	Ret	t-stat
Days (-1 to +1) - Baseline	0.07	0.38	0.17	0.33	0.10	0.52	0.25	0.48
Including Returns > 25%	0.07	0.35	0.17	0.33	0.10	0.50	0.24	0.48
Excluding Tax Havens	0.08	0.38	0.18	0.33	0.12	0.52	0.26	0.48
Emerging Markets	0.00	0.04	0.06	0.13	0.02	0.18	0.14	0.27
Days (-1, 0) - Baseline	-0.02	-0.09	-0.05	-0.07	0.03	0.11	0.06	0.10
Including Returns > 25%	-0.02	-0.09	-0.05	-0.08	0.03	0.10	0.06	0.09
Excluding Tax Havens	-0.03	-0.10	-0.05	-0.08	0.03	0.10	0.06	0.09
Emerging Markets	0.00	-0.03	0.01	0.01	0.02	0.15	0.11	0.18
Days (0, +1) - Baseline	0.06	0.30	0.21	0.33	0.11	0.48	0.32	0.52
Including Returns > 25%	0.06	0.28	0.20	0.33	0.11	0.46	0.32	0.51
Excluding Tax Havens	0.08	0.28	0.22	0.33	0.13	0.47	0.34	0.51
Emerging Markets	0.03	0.26	0.16	0.30	0.06	0.39	0.28	0.45

Figures

Figure 1. Cumulative Stock Returns of Cross-Listed FPIs Divided by Median Non-US Market Capitalization on March 29, 2010

Figure 2 reports the cumulative stock returns of cross-listed FPIs during 15 minute-intervals of the trading hours on March 29, 2010 for the samples of FPIs with above and below median non-US market capitalization, respectively. Non-US market capitalization is the market value of equity of the FPI outside the U.S. divided by company market value at the end of February 2010. The above median line represents companies whose non-U.S. market capitalization exceeds the median for FPIs in our sample. The below median line represents the bottom 50% of companies in terms of non-U.S. market capitalization. The divergence of the two groups on the event day shows that firms with a smaller U.S. presence experienced greater returns.

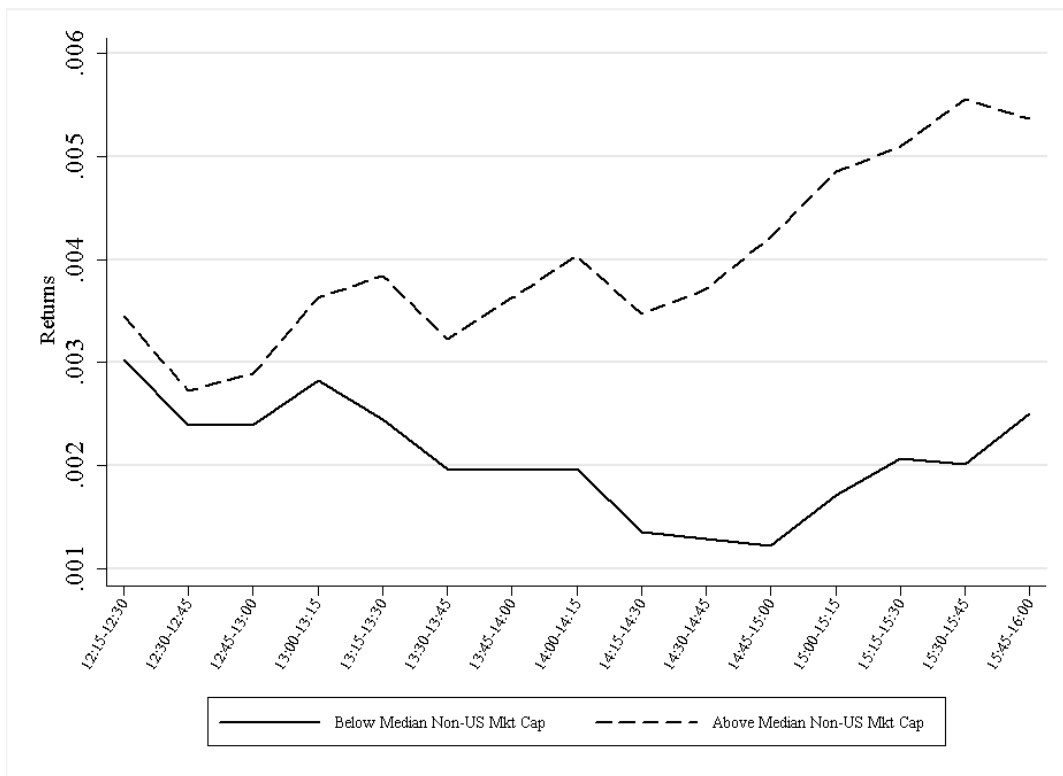


Figure 2. Scatter Plot and Fitted Relation Between Event Period Abnormal Returns and Non-U.S. Market Cap

Figure 1 shows the scatter plot and fitted relation between event period abnormal returns and non-U.S. market capitalization of individual foreign private issuers (FPIs). Non-U.S. market capitalization is the market value of equity of the FPI outside the U.S. divided by company market value at the end of February 2010. FPIs are exchange listed with SEC compliance. CAR is event period abnormal returns (market model adjusted returns of FPIs during the between March 26 and March 30 of 2010 for which we use S&P500 index as the benchmark). Fit1-Fit9 are the coefficient estimates for non-U.S. market capitalization in Panel A of Table 5 multiplied by non-U.S. market capitalization.

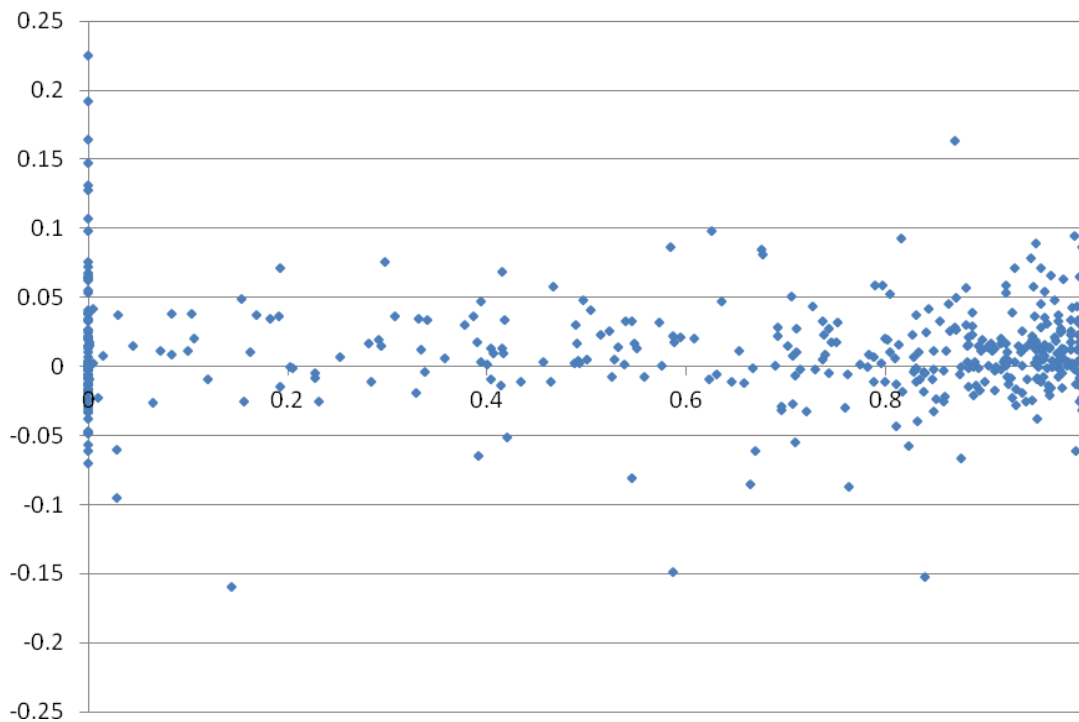
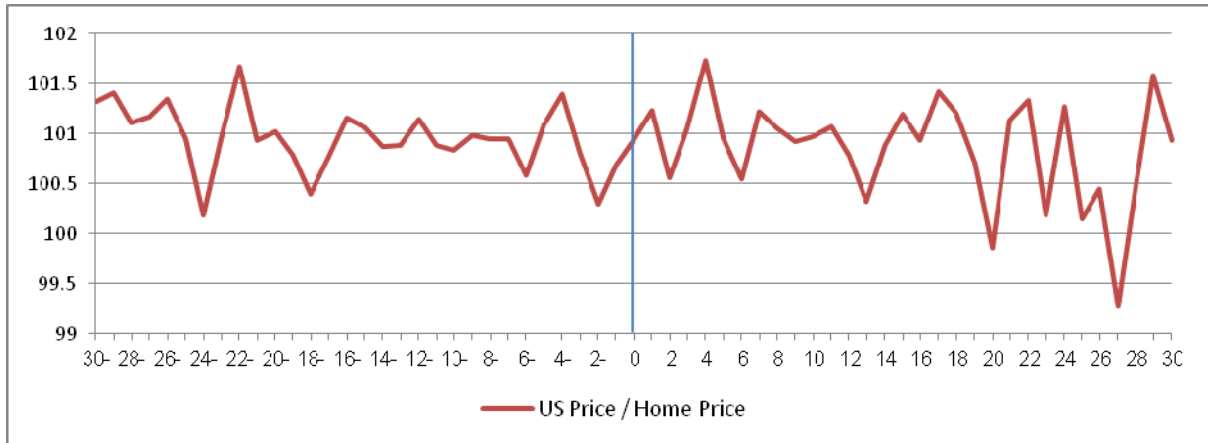


Figure 3. US Price as Percentage of Home Price

Figure 3 shows the mean U.S. market share price expressed as a percentage of the home market share price for the sixty business days surrounding March 29, 2010 ($x=0$). For example, a value of 101 means that the U.S. shares trade at a 1% premium over the home market shares. There is no clear pattern in price premiums in the days surrounding the oral argument in *Morrison*. The legal bonding hypothesis predicts that the U.S shares should become more valuable post-*Morrison*, when only transactions in those shares are afforded the protection of section 10(b). The lack of a revaluation suggests that the market did not see such protection as a source of value.



Appendices

Appendix 1. Data Sources on U.S. Cross-Listed FPIs

The database contains foreign companies with cross listings on U.S. stock exchanges, including OTC markets. Companies were identified to be foreign and listed on a U.S. exchange using all of the sources below. The primary sources, however, were the websites of the SEC and various exchanges, COMPUSTAT North America, the CRSP Monthly Stock File, the CUSIP Master File, and the depository services directories of BONY Mellen, JP Morgan Chase, and Citigroup. Information on which exchanges the firms list on, and whether they have a listing in their home country, was also verified using Capital IQ's screening tools. In addition to those principal sources, the other sources consulted included:

1. American Stock Exchange, "Amex Fact Book," New York, NY: American Stock Exchange, 1983-1998. HOLLIS #: 000166331.
2. Capital IQ. Accessed via Harvard Business School Baker Library.
3. New York Stock Exchange, "New York Stock Exchange – Listings – Listings Directory – NYSE Amex," NYSE Euronext website, http://www.nyse.com/about/listed/lc_altus_overview.shtml, accessed September 2010.
4. New York Stock Exchange, "Fact Book," New York, NY: The New York Stock Exchange, 1975-2001. HOLLIS #: 001608832.
5. New York Stock Exchange, "NYSEData.com Factbook: Non-U.S. common stock listings," NYSE Facts & Figures website, http://www.nyxdata.com/nysedata/asp/factbook/viewer_interactive.asp, accessed September 2010.
6. New York Stock Exchange, "New York Stock Exchange – Listings – Listings Directory – NYSE," NYSE Euronext website, http://www.nyse.com/about/listed/lc_ny_overview.html, accessed September 2010.
7. NASDAQ, "Company List: NASDAQ, NYSE, & AMEX Companies – NASDAQ.com," NASDAQ website, <http://www.nasdaq.com/screening/company-list.aspx>, accessed September 2010.
8. U.S. Securities and Exchange Commission. "Next-Generation EDGAR System," SEC Company Search website, <http://www.sec.gov/edgar/searchedgar/companysearch.html>, accessed September 2010.
9. Listings information from corporate action calendar for years 2005-2009, via Bloomberg LP, accessed September 2010.
10. Thomson Reuters Datastream, accessed September 2010.
11. Thomson ONE Banker, via Excel plugin, accessed September 2010.
12. Standard & Poor's Compustat data via Research Insight, access September 2010.
13. ©201009 CRSP®, Center for Research in Security Prices. Booth School of Business, The University of Chicago 2010. Used with permission. All rights reserved. www.crsp.chicagobooth.edu, Data retrieved via Wharton Research Data Service.
14. New York Stock Exchange, "NYSE Group non-U.S. Additions (2000-2007)" (PDF File), downloaded from NYSE website, http://www.nyse.com/pdfs/00_07_NonUSAdditions.pdf, accessed September 15, 2010.
15. New York Stock Exchange, "NYSE Group non-U.S. Additions (2000-2008)" (PDF File), downloaded from NYSE website, http://www.nyse.com/pdfs/00_09_NonUSAdditions.pdf, accessed September 15, 2010.
16. New York Stock Exchange, "NYSE Non-U.S. Listed Issuers from 51 Countries (December 31, 2002)" (PDF File), downloaded from NYSE website, <http://www.nyse.com/pdfs/02nonUSIssuers.pdf>, accessed September 15, 2010.
17. New York Stock Exchange, "NYSE Non-U.S. Listed Issuers from 50 Countries (December 31, 2003)" (PDF File), downloaded from NYSE website, <http://www.nyse.com/pdfs/03nonUSIssuers.pdf>, accessed September 15, 2010.
18. New York Stock Exchange, "NYSE Non-U.S. Listed Issuers from 47 Countries (December 28, 2004)" (PDF File), downloaded from NYSE website, <http://www.nyse.com/pdfs/04nonUSIssuers.pdf>, accessed September 15, 2010.
19. New York Stock Exchange, "NYSE Non-U.S. Listed Issuers from 47 Countries (December 30, 2005)" (PDF File), downloaded from NYSE website, <http://www.nyse.com/pdfs/05nonUSIssuers.pdf>, accessed September 15, 2010.

20. New York Stock Exchange, "NYSE-listed non-U.S. Issuers from 47 Countries (as of December 29, 2006)" (PDF File), downloaded from NYSE website, <http://www.nyse.com/pdfs/06nonUSIssuers.pdf>, accessed September 15, 2010.
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