Cross-Border Reverse Mergers: Causes and Consequences

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Abstract

We study non-U.S. companies that have used reverse mergers as a means to adopt U.S. corporate law (and sometimes U.S. securities law as well). Early adopters of cross-border reverse mergers and those firms that hired a Big Four auditor exhibited superior corporate governance outcomes. Later adopters of cross-border reverse mergers were likely to strategically mimic the early entrants only to gain access to U.S. capital markets—that is, they took some governance actions but not others—and are shown to be likely to have worse corporate governance outcomes over time. Firm-level origins in China initially appears to be a significant negative determinant of at least some corporate governance outcomes, but the variable loses its statistical power when examining the most comprehensive data set on cross-border reverse mergers yet assembled and when including a battery of relevant control variables. Adoption of Nevada's corporate law is associated with some of the most serious restatements involving real corporate governance and data manipulation problems. In summary, the evidence supports the existence of strategic mimicry, which the capital market did not fully discern for many years. It also supports the explanatory power of reputational bonding to explain the fact that adoption of U.S. institutions can be used either to build reputation or to exploit relatively weak U.S. cross-border law enforcement.

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I. Introduction

A long line of studies has noted that weak corporate governance institutions impede financial and economic development. One hotly contested question is the extent to which firms from countries with weak governance institutions can simply rent U.S. governance institutions and commit themselves to better corporate governance (Coffee 1999, Stulz 1999, Siegel 2005). A debate has arisen pitting the concept of legal bonding (Coffee 1999, Stulz 1999)—that U.S. rules can be enforced extraterritorially and that renting U.S. institutions will significantly solve the weak-institutions problem via formal U.S. law enforcement—against the concept of reputational bonding (Siegel 2005) that U.S. law enforcement is weak outside the country's borders and that firms must choose whether to follow rules that are not formally enforced with much efficacy.

The prior literature has tended to focus solely on cross-listings. Of all the articles on bonding published since 1999, nearly all, if not all—from Coffee (1999) and Stulz (1999) to Doidge et al. (2003) and Gande and Miller (2012)—have done so. This focus is probably traceable to the international finance literature's longtime phenomenological interest in equities trading across national markets.

But if we want to know whether adopting U.S. institutions leads to a high uniform level of corporate governance, it seems odd that the literature has almost totally ignored the phenomenon of reverse mergers. Reverse mergers involve the adoption of state-level corporate law, which is even more focused than federal securities laws on preventing insiders from stealing from their firms. Securities law gets at this issue via disclosure: corporate law addresses it directly via the content of the law and the mechanism (derivative actions) specifically designed to thwart insiders from stealing from their firms. By focusing on reverse mergers, furthermore,

we can compare and contrast the set of firms that adopt only state-level corporate law and those that rent both state-level corporate law and U.S. federal securities law (by listing their shares on a major U.S. stock exchange).

We find that cross-border reverse mergers have exhibited the following patterns. (1) A majority of the cross-border reverse mergers involve Canadian and Chinese firms. (2) A majority of the enforcement actions involve Chinese firms. (3) Firms that pioneered the reverse merger early on and those that chose a Big Four auditor were less likely to have negative corporate governance outcomes, measured by late filing of annual reports to the SEC, formal enforcement actions and stock-market trading suspensions. (4) Lastly, home-country institutions partially explain these outcomes as well: firms from countries with relative better corporate governance have fewer negative corporate governance outcomes in the United States.

The patterns we find are systematically different from what we see in distantly related literatures that might otherwise provide a useful analogy. In neoinstitutional theory—influential within sociology over the last three decades—an initial set of pioneers chooses a new practice because it is economically optimal to do so. Subsequently, a set of followers chooses the same practice not because it is economically optimal but because a set of external resource providers and intermediaries forces them to do so (DiMaggio and Powell 1983). We find otherwise, since there is no evidence that non-U.S. firms are being told by reputable intermediaries to rent Nevada's corporate law. Instead, they appear to be doing so as a tactic to try to gain access to U.S. capital markets. Organizational theory offers the concept of decoupling, whereby firms announce their intention to adopt a practice demanded by the capital markets or other intermediaries, receive a stock-market bounce from the announcement, and never actually implement the practice (Westphal and Zajac 2001). By contrast, many of the reverse mergers

publicly show their cards, so to speak, by producing public filings that specify which auditor was hired and which state's corporate law was adopted. In this context there is no concealment of true practices (especially of auditor choice).

Barzuza and Smith (2011) find that Nevada is responsible for bad governance outcomes among a set of mostly domestic American firms; our comprehensive data on cross-border reverse mergers shows, by contrast, that adopting Nevada's corporate law does not significantly predict most governance outcomes—except for restatements involving a negative effect on net income, where we welcome the consistency of their results on a very different sample of firms with our findings. Templin (2011), Chen et al. (2012), Darrough et al. (2012), and Jindra et al. (2012) focus on Chinese firms as a primary source of governance problems among reverse-merger firms, whereas Ang et al. (2012: 3) suggest ways to sift through the "bad apples" of Chinese reverse merger, since some are relatively well-governed, and Lee et al. (2012) argue in contrast that Chinese reverse-merger firms are well governed relative to their reverse-merger peers. We show, by contrast, that being from China actually has a relatively trivial effect on nearly all governance outcomes we examine; instead, factors such as the year of the reverse merger and the choice of a Big Four auditor are far more important causal variables in corporate governance outcomes among cross-border reverse-merger firms. In a paper that follows ours, Chu et al. (2012) present complementary evidence that having a Big Four auditor is associated with less earnings management among reverse-merger firms.[1] In our study, having a Big Four auditor is significantly negatively associated with two out of five earnings management measures. (Having a Big Four auditor is also modestly negatively associated with one other earnings management measure.) Thus we do not find quite the same robust association between a Big Four auditor and

[1] Chen et al. (2012) also show that having a Big Four auditor is associated with a greater likelihood of firm survival.

less earnings management as Chu et al. (2012); we provide evidence for a robust association between having a Big Four auditor and a range of other positive corporate governance outcomes.

The paper is organized as follows. Section II provides a further review of the bonding literature. Section III describes the phenomenon of cross-border reverse mergers. Section IV describes our data. Section V presents the models and results, and Section VI discusses those results.

II. The Bonding Literature

We know from the last decade and a half of corporate governance literature that institutions matter, and that weak corporate governance institutions lead to slower financial and economic development. Weak institutions have been shown to be associated with smaller stock markets, fewer large firms, fewer firms in industries dependent on outside finance, and weaker economic development. The question, then, is whether firms can jump across institutional jurisdictions and commit to follow the stronger corporate governance institutions of other countries. This view was pioneered by Coffee (1999) and Stulz (1999).

The legal-bonding scholars argue that formal U.S. law enforcement, via either the U.S. Securities and Exchange Commission (SEC) or private plaintiffs, can significantly solve the weak institutions problem. The argument is that foreign firms, in order to access U.S. equity markets, must agree to follow most if not all of the disclosure and legal-liability requirements of U.S. federal securities law. Such requirements make these firms subject to formal law enforcement by the SEC and to private lawsuits. Fear of one or both forms of enforcement should significantly solve the weak institutions problem.

The alternative hypothesis of reputational bonding, proposed by Siegel (2005, 2009), points to empirical evidence that it is difficult for the SEC and private plaintiffs to enforce U.S. securities laws across borders (Siegel 2005). One of the main challenges is the frequent impossibility of gathering evidence from firms' home countries. Despite weak formal law enforcement, the market for cross-listings continues to grow, because firms can commit to following the law voluntarily. They can also show themselves to be doing so during a home-market economic downturn or crisis, when insiders have been shown to face the greatest temptation to move money illicitly to their own foreign-currency-denominated bank accounts. The evidence shows (Siegel 2005) that a representative group of Mexican firms landed in a separating equilibrium in the years after Mexico's 1994–1995 crisis. Those that were even accused of a significant corporate governance violation were systematically cut off from subsequent access to the U.S. capital market. Those that weathered the home-market crisis without being accused of a governance violation were given privileged long-term access to outside finance. This type of separating equilibrium, in which a majority follows the law even though formal law enforcement is known to be weak, can help explain why the market for cross-listings has continued to grow over the past decade.

Interestingly, the bonding literature has focused almost all of its attention on cross-listings even though U.S. institutions can be adopted in multiple ways; the route most applicable to the bonding hypothesis is adoption of U.S. state-level corporate law, either in isolation or together with the adopting of U.S. federal securities law. Therefore it is necessary to focus on whether reverse mergers lead to better corporate governance—and, if so, which causal mechanism (reputational bonding or formal legal bonding) better explains success.

III. Cross-Border Reverse Mergers

A typical reverse merger has the following characteristics. A non-U.S. company seeks to adopt U.S. state-level corporate law. It identifies a U.S. shell company already incorporated in a particular state. It then engineers a reverse merger transaction, at the end of which the non-U.S. company's controlling shareholder or shareholders control the U.S. shell company, which in turn owns the original non-U.S. company. As a result, the non-U.S. company is now owned formally by an entity that is bound by U.S. state-level corporate law.

Within the corporate law literature, Romano (1993, 2002) has provided clues as to why it might pay for foreign non-U.S. companies to adopt U.S. state-level corporate law—particularly if that law is from Delaware. Delaware has managed to come up with a corporate law regime that is highly attractive to both corporate managers and shareholders, according to Romano (1993, 2002) and Easterbrook and Fischel (2001: 222). Even if Easterbrook and Fischel would prefer yet more options for firms, they are fans of the relative high quality of Delaware corporate law. The reputed high quality of Delaware corporate law is seen in terms of the positive abnormal returns given by the capital market to firms switching over to Delaware, as well as in the high Tobin's q by firms already in Delaware (see summary of this event study literature by Romano (2002); see also the result for Tobin's q in Daines (2001)). Subramanian (2004), in contrast, argues based on statistical evidence that the positive Tobin's q effect for Delaware-incorporated U.S. firms only existed for small firms (which would still encompass many reverse merger firms) but possibly disappeared after Delaware lost some of its legal differentiation vis-à-vis other states in the mid-1990s. It is nevertheless seen that Delaware is the state of incorporation for more than half of U.S. public companies and 60 percent of the Fortune 500 (Bebchuk and Hamdani (2006)). In contrast, Barzuza (2011) argues that Nevada's corporate law

since 2001 has been aimed at attracting those corporate owner-managers eager to have the laxest rules.

We believe there are likely two motivations for such cross-border reverse mergers. The non-U.S. company may be seeking to bond itself to stricter U.S. rules of corporate law, which go further than most countries' corporate law to ban self-dealing by owner-managers and to provide so-called derivative actions as a mechanism for the owner-managers to be sued in case of self-dealing. Alternatively, some of these reverse mergers may be used as an instrument for the owner-manager to engage in fraud. Specifically, if the non-U.S. firm is seeking to evade taxes in the home country it may structure transactions with the new U.S. parent so as to avoid taxes in the home country. Or at the same time, if the non-U.S. firm senses that a state such as Nevada has one of the lowest level in the U.S. of state employees per state population and is not able to strictly enforce its own corporate law, then perhaps the reverse merger could be used as a mechanism to exploit pockets of particular weakness in U.S. formal law enforcement.

So in this paper we aim to shed light on the relative empirical importance of bonding vs. defrauding as motivations for cross-border reverse mergers. While the legal bonding theory predicts a separating equilibrium where only high-quality firms will adopt the U.S. law and that these companies will not only do basic compliance at the moment of cross border reverse mergers, but also take post-merger actions consistent with the reverse merger, this paper predicts that both high-quality and low quality firms will enter the cross-border reverse merger market but they behave differently in basic compliance and in adopting or not adopting corporate governance practices that are core to the spirit of the U.S. laws. To be more specific, we have the following three empirical predictions on cross-border reverse mergers: 1) high-quality foreign operating firms will adopt the U.S. law first via cross-border reverse mergers; 2) low-

quality foreign operating firms will follow later; and 3) the two types of firms will voluntarily choose different levels of basic compliance and different practices of corporate governance in the post-reverse merger period that may or may not be consistent with the spirit of the U.S. laws.

There is the following set of assumptions that underpin our theoretical model and that we argue to be reasonable. First, the cost for a firm to enter the cross-border reverse merger market becomes more certain and possibly decreases over time. When a new practice is first introduced, the economics behind it is unclear and key stakeholders may not buy in. As a result, early entrants have to pay a pioneer's cost (a) to figure out how (and if) the practice works and (b) to make the investment to promote the practice's legitimacy. Once the economics underlying the practice becomes clear and the legitimacy is (partially) established, low-quality firms can partially imitate the pioneer's practices without having to pay all of the pioneer's cost. Second, it is too costly for low-quality firms to mimic every dimension of high-quality firms' behaviors. Some corporate governance actions consistent with bonding are more costly than others, and hence looking at actual compliance behavior might allow the researcher to identify and differentiate among the bonded types and the fraud-seeking types. Third, there is some kind of imperfection in the U.S. capital market, or at least some presence of inexperienced, less than fully informed investors, which allows the low-quality firms to enter the market for cross-border reverse mergers and extract some firm-specific benefits for a considerable period of time. Fourth, the formal law enforcement is fairly weak, and therefore, a significant number of firms are able to engage in negative corporate governance practices for a considerable amount of time with near-impunity.

So in this paper we aim to shed light on the relative empirical importance of bonding vs. defrauding as motivations for cross-border reverse mergers. Given that Delaware is held in the

literature to foster good corporate governance whereas Nevada subsequent to 2001 is predicted to foster lower-quality corporate governance, then is the choice of Delaware vs. Nevada a good proxy for a firm's decision to bond itself vs. defraud investors? Second, it has been noted in the popular business press that Delaware and other U.S. states at least indirectly give foreign firms the opportunity to evade taxes in their home countries. According to the New York Times, a senior official of the Cayman Islands Financial Service Association asserted that, "Delaware, along with Nevada and Wyoming, promoted tax evasion and money laundering, thus qualifying the United States as a tax haven" (Browning 2009). We will examine whether these tax avoidance opportunities drown out the possibility of positive governance bonding in any state (no matter how good the corporate governance is in Delaware or in Nevada), as argued by Dyreng, Lindsey and Thornock (2011) in their study of subsidiary location choice among U.S. domestic firms.

Third, it has been argued in Siegel (2005) and in much of the accounting literature (DeAngelo (1981), Simunic (1984), Larcker and Richardson (2004)) that high-quality intermediaries are crucial in enforcing what is an otherwise weakly enforced formal set of corporate governance laws in the U.S. So perhaps does the choice to have a Big Four auditor prove far more important in determining the quality of corporate governance than the choice of U.S. state?

Finally, there has been a series of articles in the popular business press along with academic papers focused solely on Chinese reverse merger firms and negative corporate governance outcomes (see earlier discussion of Templin (2011); Chen et al. (2012), Darrough et al. (2012), Jindra et al. (2012); Ang et al. (2012); and Lee et al. (2012). So we will explicitly test

whether it matters for corporate governance outcomes whether a firm is from Canada or China, the two main sources of cross-border reverse mergers into the U.S.

IV. Data and Models

IV.A. Data

First, we gather data on cross-border reverse mergers into the U.S., when they took place, the foreign operating company's country of headquarters, and the U.S. state law being adopted. To compile this database we screen for cross-border mergers using Capital IQ and Thomson ONE Banker, then supplement these sources with a reverse mergers database created by Private Raise. We also use the SEC's online EDGAR database to identify entities with features common to reverse merger candidates. These included the use of "Acquisition" in the company name, registering as a small business issuer under section 12(g) of the Securities & Exchange Act of 1934, and filing a large 8-K form around the time of a name change.[2] After assembling a list of likely foreign reverse merger companies, we review their SEC filings to determine whether the transaction was truly a cross-border merger. The database covers the period from 1996 until September 2012, since 1996 was the first known year of a cross-border reverse merger from these sources.[3] Also, from Capital IQ we are able to code each firm's auditor as recorded on each year's company filings given to the SEC.

Second, we gather financial data on the reverse mergers. We collect information on both the U.S.-incorporated companies before and after the reverse merger, as well as on the foreign

[2] 8-K forms are filed to announce "entry into a material definitive agreement." The 8-K filed around the time of a reverse merger is usually called a "super 8-K," and contains details of the transaction. Reverse merger companies usually change their name and board members around the time of the transaction, so looking for large 8-K filings near the time of a name change typically indicates a significant change in control of the company, which could signal a reverse merger.

[3] Note that we are continuing to look for whether there were even one or two such cross-border reverse mergers historically prior to 1996.

operating companies before and after the reverse mergers. The financial data are compiled from Capital IQ, Thomson ONE, Worldscope, and Osiris. The foreign companies usually are not reporting to the SEC prior to the merger because they do not trade on a U.S. stock exchange. After the merger, however, these firms typically report 2-3 years of financials on form 8-K, so the database includes financial data for both the U.S. (shell) company and the foreign firm prior to the merger. (One of our later findings is that cross-border reverse merger firms often delist and go dark after just a few years.) The pre-merger financials for the foreign companies come exclusively from Capital IQ, whereas all other financial data comes from Capital IQ, unless Capital IQ shows a missing value, in which case we completed our database using financial data from Thomson Reuters. Unless otherwise stated, our analysis in the tables focuses on the U.S.-incorporated parent company post-reverse merger.

Third, we gather data on SEC filing restatements and auditor change from *Audit Analytics,* which provides detailed research on over 150,000 audits and more than 10,000 accounting firms. A firm may use more than one auditor or re-audit statements after engaging a new auditor. We collect information counting the number of auditors used by a firm in each year. Restatement arises when a firm makes a mistake in its financial statement and submits corrections to the mistake. While accounting inaccuracy can result from honest errors, it can also arise out of deliberate attempt to manipulate earnings and other measures of performance.

Fourth, we gather data on formal enforcement outcomes. For firms suspended from major U.S. exchanges, we gather the date of the suspension, the SEC release number, and the company name from the SEC's trading suspensions webpage.[4] We then find the central index key for each company and used it to match the suspended firms to firms in our dataset. From the

[4] U.S. Securities and Exchange Commission. "Trading Suspensions." 1995-2011. Accessed online August 2011 at <http://www.sec.gov/litigation/suspensions.shtml>.

SEC's online library of enforcement actions, we also collect data on when firms were subject to SEC initiated litigation. Also, from the SEC online library of comment letters sent to companies from August 1, 2004, we code how many comment letters each company received and of which content type. From the Stanford Law School Securities Class Action Clearinghouse website, which covers private securities lawsuits, we collect information on which firms had been sued by private parties in the U.S. for violations of U.S. securities law.

Fifth, we examine the magnitude of problematic accounting by these reverse merger firms. We first use total accruals as a proxy for the use of managerial discretion (Srinivasan, Wahid, and Yu (2011). Total accruals is calculated as (Δ Current Assets - Δ Cash) - (Δ Current Liabilities - Δ Current Debt - Δ Tax Payable) - Δ Depreciation. Δ presents change year over year. If information was missing the change was assumed to be zero. Many companies in the sample do not report taxes as a line item because they do not pay any taxes. We require that a company have at least two non-zero/missing inputs in the equation to be included in the accruals regression analysis. Consistent with prior accounting literature, we also divide accruals by operational cash flows as an alternative measure. We also utilize two other related measures of earnings management through accruals, which together measure how well accruals map into cash flow realizations (Dechow and Dichev (2002), Wysocki (2009)). First, we use OLS regression to predict changes in working capital using cash flows:

$$\Delta WC_t = \alpha_1 + \beta_1 * CFO_{t-1} + \beta_2 * CFO_t + \beta_3 * CFO_{t+1} + \epsilon_t^1 \quad (1)$$

$$\Delta WC_t = \alpha_2 + \beta * CFO_t + \epsilon_t^2, \quad (2)$$

where *CFO* is operating cash flow, and ΔWC_t is change in working capital (accruals) using the cash flow method. Following Wysocki (2009), we subtract the adjusted R-squared of the second model from the first model to create the measure labeled "Accrual Quality Measure A." To create the second measure, labeled "Accrual Quality Measure B", we divide the adjusted R-

squared of the first model by the adjusted R-squared of the second model. The data for total accruals come first from Compustat, then Osiris if Compustat figures are not available. Any remaining gaps after consulting these sources were filled in using Capital IQ.

Sixth, we construct a ranking of auditors in the following manner. We first identify the Big Four accounting firms and signed a value of 5 to each of them. We then identified the other top 100 accounting firms based on the lists of "Top 100 Firms, 2010" by Accounting Today and "IPA's 2009 Top 100 Firms" by Inside Public Accounting and their size information in Public Company Accounting Oversight Board (PCAOB) reporting. For any firm that is ranked differently in the two lists, we always assign it with the highest rank. For international firms that are not ranked, we assign the rank number of the U.S. firm of the closest size in terms of professional staff members. We then assign a value of 4 to those non-Big Four top ten firms[5]; a value of 3 to the top 11-50 firms; a value of 2 to top 51-100 firms; a value of 1 to firms that ranked outside top 100 but are not trivially small; and finally a value of 0 to those trivially small accounting firms. We define an accounting firm as trivially small when it has less than 5 partners or less than 10 professional staff members.[6] For firms for which we cannot find information from PCAOB, we search online to identify their staff size. For those firms that are too small to have a website, we also categorize them as trivially small, even though we do not have information regarding their partner number or the size of professional staff.

Seventh, we use a set of control variables on country-level institutions to see if they explain differences in reverse merger outcomes. We use the Voice and Accountability index

[5] For Arthur Andersen, we treat it as the No.5 firm historically in the world, as is relevant to the earlier part of our sample time period.
[6] We also tried an alternative specification by collapsing the last two categories and our empirical results do not change in any substantive way.

from the World Bank World Governance Indicators project (Kaufmann et al. (2010)); along with the public enforcement of securities law index from Djankov et al. (2008).

Eighth, we use the following two controls for home-country wealth and economic dynamism. From the World Development Indicators, we utilize GDP per capita in 2000 constant dollars and then take the natural log. From that same source, we utilize the GDP growth rate.

Ninth, we use a set of control variables meant to distinguish Chinese provinces from each other by their institutional quality. The source is NERI INDEX of Marketization of China's Provinces compiled by Fan and Wang (2009). The index characterized the progress of transition towards market economy for 31 provinces and regions in China. The index has a total of 23 subcomponents that cover five general areas: 1) market and government relationships; 2) development of the non-state enterprise sector; 3) development of the commodity market; 4) development of the factor markets; and 5) market intermediaries and the legal environment for the market. The index is constructed based on governmental statistics such as the share of government budgetary expenses in gross domestic product and the judgment of 4000 company leaders from enterprise surveys. We focus on their ranking of the overall institutional environment in each province, which is the average score across the five subcomponents.

IV.B. Models

We run a series of regressions to test the relationship between reverse merger timing, auditor reputation, and corporate governance. In Table 5, we first use a panel logit regression to model the selection of auditors of different reputation as a function of the particular firm's reverse merger timing, its total assets, and pre-merger auditor choice. We also control the regulatory environment in the U.S. as well as home country economic conditions. We further add year dummies to control for time-period effects. We next link a firm's auditor choice to its

lateness of SEC-mandated disclosure and run a series of panel logit regressions in which a firm's lateness of SEC-mandated disclosure is a function of auditor rank, the year when the particular firm's reverse merger took place, the U.S. regulatory environment, the log of the firm's total assets, home country's economic conditions as well as time-period effects. Thus, our

our basic models are:

$$AuditorChoice_{kt} = a + b(ReverseMergerYear_k) + c(PreMergerUseOfBigFour_k) + d(FirmFinancials_{kt}) + e(USRegulationControl_t) + f(USExchangeListing_t) + g(HomeCountryEconomicControls_{kt}) + Time_t, \quad (3)$$

$$LatenessOfSEC\ MandatedDisclosure_{kt} = a + b(AuditorChoice_{kt}) + c(ReverseMergerYear_k) + d(PreMergerUseOfBigFour_k) + e(FirmFinancials_{kt}) + f(USRegulationControl_t) + g(USExchangeListing_t) + h(HomeCountryEconomicControls_{kt}) + Time_t, \quad (4)$$

where $AuditorChoice_{kt}$ represents the reputation of firm *k's* chosen auditor at time *t* and $LatenessOfSEC\ MandatedDisclosure_{kt}$ alternatively presents the particular firm *k*'s Late-Filed Annual Report to the SEC at time *t,* or Anything Filed Late to the SEC at time *t*. $ReverseMergerYear_k$ represents the year when the particular firm *k's* reverse merger took place. $PreMergerUseOfBigFour_k$ presents if firm *k* ever used a big four as an auditor before its entry into the U.S. financial market through reverse merger. $FirmFinancials_{kt}$ presents three firm-level controls: a) the log of firm *k*'s asset; b) firm *k*'s leverage as the ratio between its total liability and total asset; and c) firm *k*'s earnings before the deduction of interest, tax and amortization expenses. $USRegulationControl_t$ presents the change of the regulatory environment in the US financial market due to the pass of the Sarbanes-Oxley Act in 2002. $USExchangeListing_t$ represents if firm *k* is listed on a major U.S. exchange such as NYSE, AMEX, NASDAQ, or ARCA. $HomeCountryEconomicControls_{kt}$ presents two home-country controls: a) the log of home-country GDP per capita; and b) the growth rate of home-country GDP.

In Table 6, we run the first and second models described above and add to it a series of further country-level institutional control variables. We also take the two models above and focus just on the Chinese reverse mergers, with the ability thus to include controls for the varying quality of Chinese province-level institutions.

In Table 7, we examine the location choice of the reverse merger firms to see if there is anything special about Nevada in terms of who adopts Nevada's corporate law, what is the auditor choice for these same firms, and what is the resulting lateness of filing SEC-mandated disclosures. We estimate three models:

$$Nevada_k = a + b(ReverseMergerYear_k) + c(PreMergerUseOfBigFour_k) + d(FirmFinancials_k) + e(USRegulationControl_t) + f(HomeCountryControls_k), \quad (5)$$

$$AuditorChoice_{kt} = a + b(StateOfIncorporation_k) + c(ReverseMergerYear_k) + d(PreMergerUseOfBigFour_k) + e(FirmFinancials_{kt}) + f(USRegulationControl_t) + g(USExchangeListing_t) + h(HomeCountryEconomicControls_{kt}) + Time_t\ , \quad (6)$$

$$LatenessOfSEC\ MandatedDisclosure_{kt} = a + b(StateOfIncorporation_k) + c(AuditorChoice_{kt}) + d(ReverseMergerYear_k) + e(PreMergerUseOfBigFour_k) + f(FirmFinancials_{kt}) + g(USRegulationControl_t) + h(USExchangeListing_t) + i(HomeCountryEconomicControls_{kt}) + Time_t\ , \quad (7)$$

where $StateOfIncorporation_k$ are two dummies measuring if a firm selected to engage in reverse merger with a shell company that was incorporated in Nevada or incorporated in Delaware. Once again, $AuditorChoice_{kt}$ represents the reputation of firm k's chosen auditor at time t and $LatenessOfSEC\ MandatedDisclosure_{kt}$ presents the particular firm k's Late-Filed Annual Report to the SEC at time t. In all three models, *HomeCountryControls* includes both *HomeCountryEconomicControls* and three dummy variables indicating if the home country's legal system has common law origin, if the home country is Canada or if the home country is China.

In Table 8, we examine the association between entry timing, auditor reputation and SEC comment letters. When the SEC wants to ask questions about a company's SEC filing, it sends the company a comment letter. Such comment letters are now publicly available on the Internet for the time since August 1, 2004. We look at three set of outcome variables, measuring the number of SEC letters a firm received, the type of SEC letters that a firm received and the nature of the SEC comment that a firm received. Thus, we estimate:

$$SECLetter_{kt} = a + b(AuditorChoice_{kt}) + c(ReverseMergerYear_k) + d(PreMergerUseOfBigFour_k) + e(FirmFinancials_{kt}) + f(USRegulationControl_t) + g(USExchangeListing_t) h(HomeCountryControls_{kt}) + i(StateOfIncorporation_k) + Time_t , \quad (8)$$

where *SECLetterkt* is the count of letters sent by the SEC to firm *k* at time *t* (Model 1), or if firm *k* received SEC letter with particular type of comment such as on press release (Models 2) or registration statement (Model 3), or if firm *k* received SEC letter with comment of particular nature, such as corporate governance practices (Model 4), business risks (Model 5), accounting policies (Model 6), business operations (Model 7), firms securities (Model 8), compensations (Model 9), transactions with other companies (Model 10), or other disclosure issues (Model 11).

In Table 9, we examine the correlation between auditor status and SEC filing restatement. We estimate:

$$SECRestatement_{kt} = a + b(AuditorChoice_{kt}) + c(ReverseMergerYear_k) + d(PreMergerUseOfBigFour_k) + e(FirmFinancials_{kt}) + f(USRegulationControl_t) + g(USExchangeListing_t) + h(HomeCountryControls_{kt}) + i(StateOfIncorporation_k) + Time_t , \quad (9)$$

where $SECRestatement_{kt}$ alternatively represents if firm *k* restated its financials for time *t* (Models 1-4), if the firm's financial restatement revealed SEC investigation, identified financial fraud, irregularities, or misrepresentation, or had revised its earnings downward to negatively

impact the net income (Models 5-8), and if the firm's restatement has revised its earnings downward to negatively impact the net income (Models 9-12).

In Table 10, we examine the correlation between entry timing, auditor reputation and firm's earnings management. We estimate:

$$EarningsManagement_{kt} = a + b(AuditorChoice_{kt}) + c(ReverseMergerYear_k) + d(PreMergerUseOfBigFour_k) + e(FirmFinancials_{kt}) + f(USRegulationControl_t) + g(USExchangeListing_t) + h(HomeCountryControls_{kt}) + i(StateOfIncorporation_k) + Time_t, \quad (10)$$

where $EarningsManagement_{kt}$ alternatively represents firm k's total accrual at time t (Models 1-2), Accruals over Operations at time t (Models 3-4), Accrual Quality at time t (Models 5-8), and Rho value of Accruals at time t (Models 9-10).

In Table 11, we further examine Tobin's Q. We estimate:

$$TobinQ_{kt} = a + b(AuditorChoice_{kt}) + c(ReverseMergerYear_k) + d(PreMergerUseOfBigFour_k) + e(FirmFinancials_{kt}) + g(USRegulationControl_t) + g(USExchangeListing_t) + h(HomeCountryControls_{kt}) + i(StateOfIncorporation_k) + Time_t, \quad (11)$$

where $TobinQ_{kt}$ alternatively represents firm k's value of Tobin's Q Winsorized at 1% and 99% of the percentile distribution at time t (Models 1-3), and raw Tobin's Q value less than 25.07 (Models 4-9). In Models 4-9, we temporarily exclude the extreme outliers with Tobin's q value at 25.07 or higher because we attribute those extreme values of Tobin's q to possibly inaccurate firm-level accounting practices among that subset. The cutoff point of 25.07 was chosen based on a download we did of the distribution of Tobin's q among U.S. listed firms. In the same year, there were but a very few outliers with Tobin's q values above 25.07.

V. Results

We first examine the time at which cross-border reverse mergers into the U.S. began and when their number most increased in frequency. We show in Table 1 that they began in 1996 with a tiny number and then dramatically took off during the 2004-2010 time period. There was only a small drop in new reverse mergers during 2008-2010, after the start of the most recent global financial crisis. By 2011-12 the number of new cross-border reverse mergers had slowed considerably. Clearly, reverse mergers are not an isolated occurrence (there have been 1,139 reverse mergers captured in our database), they did not come out of nowhere (they started 16 years ago), and their numbers have increased dramatically over time (particularly from 2004 onward).

We next look in Table 1 at the main foreign country of business operation for each reverse merger. Clearly, the overwhelming majority of reverse mergers come from Canada (405 out of 1,139 total cases) and China (444 out of 1,139 total cases). While not shown in Table 1, we can also point out that the remaining 290 cases are from a diverse set of countries, consisting of both developed and emerging economies. Thus, it is interesting how the majority of cases involve Canada and China, although a range of different countries has nontrivial participation in the market for cross-border reverse mergers as well. We have asked at this point why China and Canada should be so prevalent. In the market for cross-listings, these are two of the most important countries, and to the extent that the cross-border market for reverse mergers does in fact involve some firms looking to commit fraud, it is worth noting the prevalence of Canada among the cases of severe corporate governance scandals involving cross-listed firms in the U.S. (Siegel, 2005).

Next, given that foreign companies can freely choose which of the U.S. states' corporate law to rent, we also examine in Table 1 which states are most prevalent in the data. In the U.S.

context, most domestic U.S. firms are known to typically choose between their home-state corporate law or that of Delaware. In contrast, what we find in the case of cross-border reverse mergers is far different. A majority of the reverse mergers (605 out of 1,139 total cases) involve the adopting of Nevada's corporate law, and more than a quarter of reverse mergers (309 out of 1,139 total cases) involve Delaware. One possible reason for the popularity of Nevada is the state's notably low white-collar enforcement budget and the removal over the prior decade of a great deal of legal liability for corporate insiders (see Barzuza (2011)). Nevada and Delaware are followed by a set of many states with only a small number of reverse mergers each.

Next, it is useful to ask how many of these reverse merger cases also involve adopting U.S. securities law via a major U.S. stock exchange listing. We find in Table 1 that 37 of the 1,140 reverse merger cases involve also a stock listing on NYSE, AMEX, or NASDAQ at the same time of the reverse merger. Of those 37, 21 involve NASDAQ. Yet while only 37 cross-border reverse mergers simultaneously included a major U.S. stock exchange listing, fully 111 other reverse merger firms attained a major U.S. stock exchange list after their reverse merger had taken place. So clearly an economically significant number of firms, 148 of them, are doing both a reverse merger and a major U.S. stock listing over time. The remaining supermajority of the cross-border reverse merger firms are also typically accessing the U.S. capital market in some way (a small portion are missing any data on their past capital market access), but they are doing so mostly through the so-called Pink Sheets (979 of 1,140 cases).

Then, we examine the prevalence of formal enforcement actions and trading suspensions as well as their country origins. We first find that trading suspensions among the listed exchange set have been numerous (35 out of 148 that eventually had a major exchange listing) (see Table 2). Of the reverse merger sample of 1,139 firms, 43 had by September of 2012 been the subject

of an SEC enforcement action while 44 had been the subject of a private lawsuit in that same timeframe (with at least some overlap across those two subsets). With few exceptions, these enforcement actions and trading suspensions occur once per firm. Five firms were each twice the subject of SEC litigation, and one firm was three times the subject of SEC litigation. What is striking, as shown in Tables 2 and 3, is that a plurality of the SEC litigation actions (17 out of 43 firms, or 19 out of 50 cases) involve Chinese firms, although 12 out of 43 firms, or 16 out of 50 cases (almost proportion to their relative number) involve Canadian firms. In contrast, an overwhelming majority of the private actions (37 out of 44 cases/firms) involve Chinese firms. What is at first glance striking is there does not appear to be an economically meaningful difference between Delaware incorporation and Nevada incorporate for these SEC and private enforcement outcomes. In fact, given the relative numbers of incorporations between those two states, the incidence rate for negative Nevada outcomes is considerably less than would be expected.

In Table 3 we see the names and country origins of the companies subject to these trading suspensions, SEC litigation actions, and private lawsuits. What is most striking is how the three lists do not overlap much at all. There are only seven firms in common among the SEC enforcement and private enforcement lists. Oftentimes, the private litigants have been shown to pursue redress where the SEC has failed to act in severe fraud cases (Siegel, 2005). So that latter pattern is consistent with what is previously known about private lawsuits.

Next, we examine which auditors are most commonly involved with cross-border reverse mergers. As seen in Table 4, two of the top five are Big Four firms KPMG and Ernst & Young. But the overall list shows a highly fragmented industry structure for auditors in the cross-border reverse merger space. Just under 10 percent of all observations involve firms using Big Four

auditors, and on the one hand that 10 percent (involving 109 firms) is economically meaningful. On the other hand, the fact that more than 90 percent chose to use something less than a Big Four accounting firm is telling in regards to the quality of corporate governance monitoring many of these cross-border reverse merger firms were receiving. Among these smaller auditors being frequently used are numerous very small accounting firms (with fewer than 5 partners or 10 professional staff members in a large proportion of cases).

Then we look at what predicts the choice of a quality auditor. We rank the auditors from 0 to 5, with the Big Four assigned a value of 5 and the others ranked below them by size. Figure 1a shows that early entrants (i.e. firms that had a cross-border reverse merger before 2002) chose the Big Four auditors for 15-25% of the time, much higher than the number (around 5%) for late entrants (i.e. firms that had reverse merger after 2001). In contrast, these late entrants were more likely (between 25-40% of the time) to use trivially small auditors. The pattern is particularly stark for firms that entered after 2007. Figure 1b examines the choice of auditors across filing years. It shows distinctive patterns of auditor selection deterioration over time: after the year 2001, an ever smaller number of firms use the Big Four but an ever increasing number of firms choose small auditors.

We use regression analyses to further examine the patterns above. We find in Table 5 that the choice of a larger and/or more reputable auditor is negatively correlated with reverse merger year. In other words, the early pioneers of reverse mergers were significantly more likely to select a larger and/or more reputable auditor than the later cases. These results are robust to different specification of auditor ranking, such as collapsing the bottom two categories together, or such as by categorizing firms into two categories only (i.e. either the Big Four vs. the rest or

the small ones vs. the rest).[7] We also examine the effect of the Sarbanes-Oxley Act and find no evidence that firms are more likely to select reputable auditors in the era of the Sarbanes-Oxley Act. We do find that foreign operating firms listed on major U.S. exchanges tend to hire more reputable auditors. Foreign operating firms that used the Big Four before the reverse merger are likely to still use the Big Four after the reverse merger, although this fact does nothing to take away the reverse merger year result reported earlier.

One may argue that reverse merger year is likely to pick up business cycle fluctuations. Hence, our finding—that more recent reverse mergers have worse governance–might at first appear simply be due to the fact that we observe more recent deals during a crisis while we observe firms that did a reverse merger in the past during a boom. We believe this is not the case for two reasons: first, we add year dummies to reduce the time-trend related concerns; second, as Figure 1a shows, the most dramatic decrease in the use of Big Four auditors took place among firms that had reverse mergers between 2001 and 2002, and continued to decrease (but at a much lower rate) afterward, including during the growth years of 2003-2007. There is no clear sign that the 2008 global financial crisis expedited the deterioration.

Next, we ask the question: are the so-called pioneers of reverse mergers less likely to issue their required annual reports late to the SEC? Indeed, we find that to be the case in Panel B of Table 5. (This marked progression in late filing by later reverse merger cohorts is also illustrated in Figure 2.) At the same time, firms with more reputable auditors are significant less likely to be late filers of their SEC-mandated annual reports. They are also less likely to file anything late to the SEC. The results above are shown to be robust to including country fixed effects, year fixed effects, and country*Big Four auditor fixed effects in Model 3 of Panel B of

[7] These results are available in a separate appendix from the authors.

Table 5. As would be expected, cross-border reverse merger firms in the wake of the Sarbanes-Oxley Act are somewhat less likely to turn in their annual reports late to the SEC. Larger firms are also less likely to turn in their annual reports late over the course of the 16-year sample time period.

Then we examine the effect of country-level institutions on governance outcomes. As seen in Panel A of Table 6, firms from countries ranking higher on the World Bank's Voice and Accountability index tend to be marginally more likely to hire a higher reputation auditor, and certainly the hiring of a higher reputation auditor is associated with fewer annual reports being sent late to the SEC. As seen in Panel B of the same table, firms from countries with higher public enforcement of securities laws tend to be much more likely to hire a Big Four auditor. When restricting the analysis temporarily to Chinese reverse mergers in Panel C of Table 6, we find that within-China institutional differences matter to some extent. Chinese firms from Chinese provinces with better overall institutions on the NERI index were less likely to issue late annual reports to the SEC, although they were no more or less likely to choose large and/or more reputable auditors. The overall story is that home-market institutions continue to matter to at least some extent in explaining governance outcomes, even for the firms that are adopting U.S. state-level corporate law.

We go on to examine whether there is anything special about Nevada in terms of who adopts Nevada's corporate law, what is the choice of auditor for these same firms, and what is the resulting lateness of filing SEC-mandated disclosures. As seen in Table 7, we find first of all that more recent reverse merger firms are more likely to select Nevada and also that Canadian firms are significantly more likely to adopt Nevada corporate law. Interestingly, the Chinese firms are choosing a diverse range of states to do a reverse merger, whereas the Canadian firms

are overwhelmingly picking Nevada. At the same time, there is no significant association between Nevada and choice of a reputable auditor, and there is no significant association of Nevada and filing annual reports late with the SEC. We did a robustness check and also found a non-significant result for Nevada interacted with the post-2004 and post-2005 time periods.

Next, we take advantage of the fact that since 2004 the SEC has publicly released the comment letters it sends to companies asking for more information on their stated disclosures. As shown in Table 8, we find that the one consistently robust variable is the year of the reverse merger. Later reverse cohorts are more likely to get into early trouble with the SEC, both in terms of the number of letters they receive and on nearly all of a diverse range of content dimensions reported by the SEC.

Next, we look in Table 9 at what predicts the likelihood of a reverse merger firm's restating its SEC filings in a given year. We find that those firms with higher reputation auditors are less likely to issue restatements. Furthermore, among firms that issue financial restatements, those using the Big Four auditors were less likely to issue restatements that would negatively impact their financials such as net income, or restatements that would be associated with financial fraud or SEC investigation. While Nevada firms are not more likely to issue financial restatements; among firms that issue restatements, Nevada firms are more likely to be associated with serious corporate governance and data manipulation problems. Thus, Nevada may be associated with some of the most serious restatements involving real corporate governance and data manipulation problems.

Lastly, we test to see whether the reverse merger companies display problematic accounting (as proxied by the use of accruals). As shown in Table 10, later cohorts of reverse merger firms tend to use more accruals—when one focuses on the more sophisticated measures

of accruals. Also, those firms with Big Four auditors use significantly fewer accruals for two out of five accrual measures. Interestingly, Chinese firms appear at first to use more accruals in Models 1-2, but when one looks at the more sophisticate measures of accruals from the accounting literature, China makes no difference. Also, across all accruals measures, a Nevada incorporation makes no difference.

We then examine in Table 11 what predicts levels of Tobin's q among the cross-border reverse merger sample. We conduct four sets of analyses. First, we look at the value of Tobin's q winsorized at the 1st and 99th percentiles for the full sample. Yet it is important to note that values of q vary dramatically in the full cross-border reverse merger sample, perhaps because of the illiquid nature of many OTC shares and some dubious accounting among a subset of the OTC firms. Firms with Big Four auditors tend to have lower values of q in the OTC market, perhaps because after a certain point the qs among some reverse merger sample reflect fraud schemes that are too good to be true.

In the second set of analyses, we look at values of Tobin's q below 25.07 (based again on the distribution of q among U.S. publicly listed firms during comparable years). Models 4-6 show that, once the extreme q observations above 25.07 are temporarily dropped, firms with Big Four auditors tend to have higher q values; in contrast, firms with trivially small auditors tend to have lower q values. In the third set of analyses, we repeat the same exercise as in Models 4-6 but temporarily restrict the sample to the subset of observation by which time the firm were listed on a major U.S. stock exchange. Once again, we find that firms with Big Four auditors are associated with higher q values and that firms with small auditors are associated with lower q values.[8]

[8] We also winsorize Tobin's q at the 1% and 99% of the percentile distribution within the subsample and re-run the analyses in Models 7-9. The results are substantively identical.

A final question to answer is whether the incidence of bad governance seen among the cross-border reverse merger sample is qualitatively difference from those seem among domestic reverse merger firms and among American OTC firms in general? In other words, are cross-border reverse mergers particularly bad and corrupt relative to comparable peers? As seen in Figure 3a, the cross-border reverse mergers had lower incidences of trading suspensions than U.S. OTCs for nearly all of the sample time period (although they reached the same level in 2012). As shown in Figure 3b, the cross-border reverse mergers had lower incidences of SEC enforcement than either the domestic reverse mergers or the American OTC firms for nearly the entire sample time period—until 2012 when they became comparable to the U.S. OTC firms. Furthermore as shown in Figure 3c, the cross-border reverse mergers had an incidence rate of private litigation that was mostly the same or lower than the two comparison groups for most of the sample time period. There was a sudden spike in the incidence rate of private litigation for cross-border reverse mergers in 2011, but that spike appears to have ebbed completely in the first nine months of 2012. Then, as seen in Figure 4, the cross-border reverse merger firms have a slightly lower incidence rate of receiving SEC letters than the domestic reverse merger firms. Both have an incidence rate that is higher than that for U.S. OTC firms in general.

VI. Discussion and Conclusion

Using a large group of firms in that engaged in cross-border reverse mergers in the U.S., our study finds a systematic deviation from the prediction of the legal bonding literature that suggests a separating equilibrium where only high quality firms would adopt the U.S. law via cross-border reverse mergers and do basic compliance consistent with the reverse mergers. We find a key timing dimension in cross-border reverse mergers that is more consistent with the

prediction of a (partial) pooling equilibrium. High-quality firms adopt the U.S. law first via cross-border reverse mergers; they create legitimacy for this practice via costly signals (i.e. using the Big Four auditors and doing SEC compliance). Consequently, lower-quality firms perceive an opportunity to try and use the cross-border reverse merger. They partially mimic the behaviors of the highly reputable early entrants. In the legal bonding theory, formal institutions are supposed to bond even the lesser-quality firms and provide something in the order of uniform adherence to certain basic rules of the game. Yet the data shows that the formal rules do not lead to anything like uniform adherence. If anything, choosing a Big Four auditor becomes less prevalent over time. Also, the prevalence of late filing of reports to SEC is increasing over time (and particularly for firms that do cross-border reverse mergers in more recent years).

It is worth noting that there are only a few years of financial data per average firm among the cross-border reverse mergers. Indeed, an interesting feature of the cross-border reverse merger phenomenon, as revealed in the SEC database, is that these reverse mergers typically go dark, delist, and stop filing after a few years. It is interesting as to why investors do not catch on to the high probability of the typical cross-border reverse merger firm delisting and going dark after just a few years.

Our ongoing work is to test whether the capital market was slow to distinguish among these cross-border reverse merger firms who openly report whether they have hired a Big Four auditor and/or incorporated in Nevada. If the capital market is found to be slow to distinguish among these firms, then perhaps it because is the capital market is otherwise cut off from full access to investment growth opportunities in emerging economies such as China and believes that at least some of the Chinese reverse mergers are legitimate. Or perhaps the capital market in the U.S. is simply not as dominated by the so-called smart money as is frequently believed. Or

perhaps the U.S. capital market, seeing that U.S. securities law does a decent job for U.S. firms, believes that it must also have similar effectiveness for non-U.S. firms, but must learn over time that it does not.

In summary, we find that cross-border reverse mergers have been a growing phenomenon since 1996, with the fastest growth in the years 2004-2010. Over that time, the vast majority of so-called reverse mergers have taken place in Nevada, and a growing proportion has gone without the services of a Big Four auditor. Over that same time, the percentage of late filings to the SEC has increased dramatically. Having a Big Four auditor is associated with better economic and governance outcomes. In contrast, we find that, among the non-Big Four auditors, a subset (the very smallest of the accounting firms) is significantly associated with negative corporate governance and perhaps should receive additional regulation and monitoring by stakeholders and regulators. This is in contrast to most prior work, which tended to bundle together all non-Big Four auditors. Overall, the story is consistent with reputational bonding, by which some firms voluntarily to choose to follow a weakly enforced law (and hire high-quality auditors to monitor their compliance) while others appear to exploit the weak formal law enforcement.

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Table 1: Reverse Mergers across Time, Location and Exchanges

This table presents the descriptive statistics of cross-border reverse mergers in the U.S. in the period of 01/1996-09/2012. A firm needs to fulfill three requirements to be qualified as a cross-border reverse merger: 1) its country of operation (or "home country") is non-U.S.; 2) it engaged in a reverse merger transaction in the U.S.; and 3) it is incorporated in a U.S. state.

Reverse Mergers across Time			Reverse Mergers across Location*				Reverse Mergers across Exchanges **				
Reverse Merger Year	Firms	Percentage	China Home	Canada Home	Delaware Incorporation	Nevada Incorporation	NYSE	AMEX	NASDAQ	OTC BB & Other	Switch to Major Exchanges***
1996	3	0.26	0	2	2	1	0	0	1	0	0
1997	4	0.35	0	1	2	2	0	1	0	2	0
1998	12	1.05	0	7	1	8	0	0	1	8	1
1999	42	3.69	2	27	15	12	0	0	2	31	3
2000	48	4.21	6	29	10	30	0	0	2	37	0
2001	48	4.21	7	27	10	20	0	2	4	37	1
2002	47	4.13	2	35	14	17	0	1	0	39	2
2003	56	4.92	8	34	16	26	0	1	0	46	7
2004	102	8.96	35	46	33	55	0	1	0	93	14
2005	99	8.69	38	30	25	55	1	0	0	87	13
2006	138	12.12	62	37	38	64	0	0	1	120	26
2007	142	12.47	69	38	41	77	0	0	1	134	22
2008	115	10.10	68	30	39	59	1	1	2	99	16
2009	94	8.25	47	20	21	63	0	2	2	86	6
2010	123	10.80	71	28	30	80	1	4	4	104	0
2011	52	4.57	26	10	9	30	0	0	0	44	0
01/2012-09/2012	14	1.23	3	4	3	6	0	0	1	12	0
Total	1139	100	444	405	309	605	3	13	21	979	111

Note: * Other than Canada and China, the other most home countries/regions are Hong Kong (with 63 firms), Great Britain (47), Israel (30), Switzerland (20), Australia (12), Germany (11), Taiwan (11), South Korea (7), Russia (7), India (6), Singapore (6), Japan (6), South Africa (6), Chile (5), Hungary (5), and Mexico (5).The rest come from a diverse range of other emerging as well as developed economies.

** We believe that, among the 123 reverse mergers firms not listed above as major-exchange-traded or OTC-traded, most if not all of them traded once in the past on the OTC but have not yet found historical trading data on them.

*** The 111 firms that graduated to major stock exchanges were previously among the 979 firms in the second to last column.

Table 2: Possible Suspect Governance across Reverse Merger Transaction Years

This table presents the descriptive statistics of formal enforcement outcomes over firms that engaged in cross-border reverse merger at different points of time. For firms suspended from major U.S. exchanges, we gather the date of the suspension, the SEC release number, and the company name from the SEC's trading suspensions webpage. From the SEC's online library of enforcement actions, we also collect data on when firms were subject to SEC initiated litigation. From the Stanford Law School Securities Class Action Clearinghouse website, which covers private securities lawsuits, we collect information on which firms had been sued by private parties in the U.S. for violations of U.S. securities law.

	Trading Suspension Actions					SEC Litigation Actions					Private Litigation Actions				
Reverse Merger Year	Total	China Home	Canada Home	Delaware Incorporation	Nevada Incorporation	Total	China Home	Canada Home	Delaware Incorporation	Nevada Incorporation	Total	China Home	Canada Home	Delaware Incorporation	Nevada Incorporation
1996	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1999	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2001	1	0	1	1	0	0	0	0	0	0	1	0	0	0	0
2002	0	0	0	0	0	1	0	1	0	0	2	0	1	0	2
2003	0	0	0	0	0	3	1	1	0	1	1	0	0	0	1
2004	1	0	1	0	0	2	1	1	0	1	1	0	0	0	1
2005	1	0	1	1	0	2	0	2	1	0	0	0	0	0	0
2006	1	1	0	0	1	3	2	1	1	2	2	2	0	1	1
2007	4	1	1	1	2	1	1	0	0	0	1	1	0	0	1
2008	4	0	1	2	1	8	1	1	4	3	2	2	0	1	0
2009	5	0	4	1	3	4	1	3	1	1	0	0	0	0	0
2010	4	0	3	2	2	6	0	4	3	2	9	9	0	4	4
2011	6	4	1	2	3	8	6	1	2	4	23	21	1	10	11
01/2012-09/2012	8	3	0	2	5	12	6	1	5	6	2	2	0	0	2
Total	35	9	13	12	17	50	19	16	17	20	44	37	2	16	23

Table 3: Companies that Experienced Formal Enforcement Actions

This table lists down the company name, enforcement time and country of operation for cross-border reverse merger companies that experienced SEC trading suspension, SEC litigation and/or private litigation actions. There were 91 unique firms that experienced 129 formal enforcement actions between 01/1996 and 09/2012.

SEC Trading Suspension			SEC Litigation			Private Litigation		
	Year*	Country of Operation		Year*	Country of Operation		Year*	Country of Operation
2DoTrade Inc.	2001	CAN	AVEC Corporation	2012	ARE	Advanced Battery Technologies, Inc.	2011	CHN
AVEC Corporation	2012	ARE	Aqua Society Inc.	2011	DEU	AgFeed Industries, Inc.	2011	CHN
Affinity Networks, Inc.	2008	CAN	Asia Biotechnology Group Inc.	2008	CHN	Bodisen Biotech Inc.	2006	CHN
African Diamond Company Inc.	2009	ZAF	Auto Data Network Inc.	2012	GBR	China Agritech Inc.	2011	CHN
Aqua Society Inc.	2011	DEU	Belmont Partners LLC Investment Arm	2011	CHN	China Automotive Systems Inc.	2011	CHN
Auto Data Network Inc.	2012	GBR	Big Sky Energy Corp.	2010	CAN	China Electric Motor, Inc.	2011	CHN
Big Sky Energy Corp.	2010	CAN	Bluepoint Linux Software Corp.	2003; 2007	CHN	China Energy Savings Technology Inc.	2006	CHN
BioCurex Inc.	2004	CAN	Brilliant Technologies Corp.	2012	AUS	China Expert Technology Inc.	2007	CHN
Brilliant Technologies Corp.	2012	AUS	Business Development Solutions Inc.	2009	CHN	China Green Agriculture, Inc.	2010	CHN
China Changjiang Mining & New Energy Corp.	2011	CHN	China Digital Media Corp.	2011	CHN	China Intelligent Lighting and Electronics, Inc.	2011	CHN
China Energy Savings Technology Inc.	2006	CHN	China Energy Savings Technology Inc.	2006	CHN	China MediaExpress Holdings, Inc.	2011	HKG
China Expert Technology Inc.	2007	CHN	China Expert Technology Inc.	2011	CHN	China Medicine Corporation	2011	CHN
China North East Petroleum Holdings Limited	2012	CHN	China Intelligent Lighting and Electronics, Inc.	2011	CHN	China Natural Gas, Inc.	2010	CHN
China-Biotics, Inc.	2011	CHN	China Natural Gas, Inc.	2012	CHN	China North East Petroleum Holdings Limited	2010	CHN
Clean Systems Technology Group Ltd.	2008	ISR	China-Biotics, Inc.	2011	CHN	China Organic Agriculture, Inc.	2008	CHN
Cyper Media, Inc.	2009	CAN	Clean Systems Technology Group Ltd.	2008	ISR	China Security & Surveillance Technology, Inc.	2011	CHN
Dex-Ray Resources, Inc.	2009	CAN	CleanTech Innovations, Inc.	2011	CHN	China Shenghuo Pharmaceutical Holdings, Inc.	2008	CHN
East Delta Resources Corp.	2010	CAN	Cyper Media, Inc.	2009; 2010	CAN	China Sky One Medical, Inc.	2012	CHN
Greater China Media and Entertainment Corporation	2012	CHN	East Delta Resources Corp.	2010	CAN	China Valves Technology, Inc.	2011	CHN
Heli Electronics Corp.	2011	CHN	Environmental Solutions Worldwide Inc.	2002; 2003; 2004	CAN	China-Biotics, Inc.	2010	CHN

Table 3 (Continued)

Hydrogen Hybrid Technologies, Inc.	2009	CAN	Extensions, Inc.	2008	CAN	Deer Consumer Products, Inc.	2011	CHN
Long-e International, Inc.	2012	CHN	Greater China Media and Entertainment Corp.	2012	CHN	Diomed Holdings Inc.	2004	GBR
Northern Ethanol, Inc.	2009	CAN	Heli Electronics Corp.	2012	CHN	Duoyuan Printing, Inc.	2010	CHN
Physical Property Holdings Inc.	2007	HKG	JBI, Inc.	2012	CAN	Fuqi International, Inc.	2010	CHN
Playstar Corp.	2008	ATG	Long-e International, Inc.	2012	CHN	Fushi Copperweld, Inc.	2011	CHN
Prospero Group	2010	CAF	MSC Group, Inc.	2008	SGP	Gulf Resources, Inc.	2011	CHN
RINO International Corporation	2011	CHN	NetCare Health Group Inc.	2008	VCT	Heckmann Corporation	2010	CHN
RS Group of Companies Inc.	2011	CAN	New Energy Systems Group	2004; 2006	CHN	JBI, Inc.	2011	CAN
Rahaxi, Inc	2012	IRL	Opal Technolgies, Inc.	2008	HKG	Jiangbo Pharmaceuticals, Inc.	2011	CHN
RussOil Corp.	2012	RUS	Prospero Group	2010	CAF	Keyuan Petrochemicals, Inc.	2011	CHN
Score One Inc.	2007	HKG	Qualton Inc.	2008	MEX	Light Management Group Inc.	2002	CAN
T.W. Christian, Inc	2007	CAN	RS Group of Companies Inc.	2011	CAN	NIVS IntelliMedia Technology Group, Inc.	2011	CHN
TRADEX Global Financial Services, Inc.	2008	CRI	Rahaxi, Inc	2012	IRL	New Energy Systems Group	2012	CHN
Tekron Inc.	2005	CAN	Rica Foods, Inc.	2003; 2008	CRI	Orient Paper, Inc.	2010	CHN
Tengtu International Corp.	2010	CAN	RussOil Corp.	2012	RUS	QuickLogic Corporation	2001	TWN
			Sure Trace Security Corp.	2005	CAN	RINO International Corporation	2010	CHN
			T.W. Christian, Inc	2009	CAN	Rica Foods, Inc.	2002	CRI
			Tekron Inc.	2005; 2006	CAN	Sino Clean Energy Inc	2011	CHN
			Tengtu International Corp.	2010	CAN	SkyPeople Fruit Juice, Inc.	2011	CHN
			Varner Technologies, Inc.	2009	CAN	Topaz Group Inc.	2003	THA
			Vipc Communications, Inc.	2010	CHE	Universal Travel Group	2011	CHN
			Yi Xin International Copper, Inc.	2012	CHN	Wonder Auto Technology, Inc.	2011	CHN
			Zhongpin, Inc.	2012	CHN	Yongye International, Inc.	2011	CHN
						ZST Digital Networks, Inc.	2011	CHN

Note: * 2012 refers to the period of 01/2012-09/2012

Table 4: The Most Active Auditors for Reverse Merger SEC Filers

There are a total of 421 accounting firms that conducted 3761 cases in our data set. A "case" refers to an instance of auditing at the firm-year level. We list down the most active auditors below. Firms marked with * have less than 5 partners or less than 10 professional staff members.

Auditor Name	Cases	Auditor Name	Cases
KPMG LLP	106	Kempisty & Company	20*
Sherb & Co., LLP	88	Lake & Associates, CPA's LLC	20*
Kabani & Company, Inc.	85	Morgan & Company	20
Malone & Bailey, PLLC	80	Gruber & Company, LLC	19*
Ernst & Young LLP	72	Webb & Company, P.A.	19*
Child, Van Wagoner & Bradshaw, PLLC	68	Acquavella Chiarelli Shuster Berkower & Co. LLP	18
Deloitte & Touche LLP	66	Chisholm, Bierwolf, Nilson & Morrill, LLC	18*
PricewaterhouseCoopers LLP	64	Morison Cogen LLP	18
Friedman LLP	61	MS Group CPA LLC	18*
Weinberg & Company, P.A.	57	Parker Randall	18
Dale Matheson Carr-Hilton Labonte	55	Chisholm, Bierwolf & Nilson, LLC	17*
Manning Elliott	54	HKCMCPA Company Limited	17*
Panneil Kerr Forster	52	John Kinross-Kennedy	17*
Grant Thornton	51	KBL, LLP	17
Samuel H. Wong & Co., LLP	45*	Moore Stephens Frazer And Torbet, LLP	17
Schwartz Levitsky Feldman LLP	44	Moores Rowland Mazars	17
Madsen & Associates, CPA's Inc	41*	MSCM LLP	17
Moore Stephens	41	Bedinger & Company	16*
BDO Dunwoody LLP	39	Cordovano and Honeck, P.C.	16*
Bernstein & Pinchuk, LLP	39*	LBB & Associates Ltd., LLP	16*
Davidson & Company	39	Jewett, Schwartz, Wolfe & Associates	15
ZYCPA Company Limited	38	KCCW Accountancy Corp.	14
Paritz & Company, P.A.	37	Moen and Company LLP	14*
Frazer Frost, LLP.	35	Williams & Webster, PS	14*
Michael T. Studer CPA P.C.	35*	BDO China Li Xin Da Hua CPAs, Co Ltd	13
RBSM, LLP	35	Davis Accounting Group, PC	13*
Patrizio & Zhao, LLC	34*	Dominic K.F. Chan & Co	13*
Crowe Horwath LLP	33	James Stafford	13*
Meyler & Company, LLC	33*	Mazars	13
Albert Wong & Co.	32*	Schumacher & Associates, Inc	13*
Hansen, Barnett & Maxwell, P.C.	32	Smythe Ratcliffe	13
EFP Rotenberg, LLP	31	Arthur Andersen LLP	12
Baker Tilly Hong Kong Limited	29	BDO China Shu Lun Pan	12
Moore Stephens Wurth Frazer & Torbet LLP	29	Meyers Norris Penny LLP	12
Rotenberg & Co., LLP	29	Pritchett, Siler & Hardy, P.C.	12
De Joya & Company	28*	Yichien Yeh, CPA	12*
Marcum Bernstein & Pinchuk LLP	26*	Yu and Associates CPA Corporation	12*
Moore & Associates	26*	Amisano Hanson	11
Goldman Kurland and Mohidin, LLP	25	Chang Lee LLP	11*
Goldman Parks Kurland Mohidin LLP	25	HLB Hodgson Impey Cheng	11
Goldman Parks Kurland Mohidin LLP	25	KMJ Corbin & Company LLP	11
Jimmy C.H. Cheung & Co	25	Larry O'Donnell, CPA, P.C.	11*
Peterson Sullivan PLLC	25	Marcum LLP	11
Bagell, Josephs, Levine & Company LLC	24	Moore Stephens Ellis Foster Ltd	11
GHP Horwath, P.C	23	Simon & Edward, LLP	11*
Grobstein, Horwath & Company LLP	22	Kenne Ruan, CPA, P.C.	10*
PKF Hong Kong	22	M & K CPAS, PLLC	10*
Stonefield Josephson, Inc	22	Mazars CPA (Praxity)	10
BDO International	21	Morgenstern, Svoboda & Baer, CPA's, P.C	10
Rotenberg Meril Solomon Bertiger & Guttilla, P.C.	21	Robison, Hill & Co.	10
SF Partnership, LLP	21	Sadler, Gibb and Associates, LLC	10*
BDO McCabe Lo & Company	20	Weaver & Martin, LLC	10*

Table 5: Entry Timing, Auditor Status and Suspect Corporate Governance

Panel A demonstrates through regressions the association between the timing of a firm's reverse merger and its selection of reputable auditors after accounting for a batter of alternative explanations. GDP per capita is in constant year-2000 US Dollar from the World Development Index and the natural logarithm is used; GDP Growth rate is from the World Development Index. A dummy is included to capture the pass of the Sarbanes–Oxley Act and all post-2002 observations are coded as 1. Another dummy is included to capture if a firm had used a big four accounting firm before the reverse merger. Model 1 is an ordered logit regression where the dependent variable is auditor status (0-5) for which a higher value indicates higher reputation. Model 2 is a logit regression where the dependent variable is a dummy that equals one when the auditor was one of the Big Four. Model 3 is also a logit model where the dependent variable is a dummy that equals one when the auditor was a trivially small accounting firm. We define an accounting firm as trivially small when it has fewer than 5 partners and/or less than 10 professional staff members. For accounting firms that are too small to have a website, we also categorize them as trivially small, even though we do not have information regarding their partner number or the size of professional staff.

Panel B presents the results of logit regressions on suspect corporate governance. The dependent variable is a dummy that equals one when the firm filed annual report late to the SEC. Country dummies and Country x Big4 interactions included for model 3, but only for countries where the Big Four accounting firms were observed in the data. Robust standard errors corrected for clustering at the firm level are presented below the coefficients. Asterisks denote significance levels of two-tailed test: *, **, *** indicate significance at the 10%, 5% and 1% level, respectively.

Panel A: The Selection of Reputable Auditors

	DV: Auditor Status	DV: Big4 Auditor	DV: Small Auditor
	Model 1	Model 2	Model 3
Year of reverse merger transaction	-0.084**	-0.208**	0.076**
	(0.034)	(0.089)	(0.033)
Post Sarbanes–Oxley	-2.007**	1.027	1.239
	(0.947)	(1.290)	(1.287)
Pre-merger use of the big four	1.969***	2.923***	-1.076***
	(0.307)	(0.314)	(0.404)
Total assets, logged	0.345***	0.257**	-0.343***
	(0.055)	(0.129)	(0.062)
Firm leverage	-0.013*	-0.071**	0.007
	(0.007)	(0.030)	(0.008)
EBITA, fiscal year	0.003	0.018**	-0.000
	(0.005)	(0.009)	(0.005)
Listed on major U.S. exchange	0.454**	0.607*	-0.606**
	(0.177)	(0.356)	(0.290)
GDP per capita, logged	0.051	0.635	0.144
	(0.102)	(0.478)	(0.124)
GDP growth rate	-0.063**	0.002	0.094***
	(0.027)	(0.118)	(0.035)
Year fixed-effects	YES	YES	YES
Chi-Square	209.397	163.458	126.576
N	3290	3290	3290

Panel B: Auditor Status and Suspect Corporate Governance

	DV: Late Annual Report to the SEC			
	Model 1	Model 2	Model 3	Model 4
Auditor status	-0.119***			
	(0.042)			
Big four auditor		-0.843***	-1.381***	
		(0.253)	(0.469)	
Small auditor				0.224*
				(0.130)
Year of reverse merger	0.114***	0.111***	0.112***	0.121***
	(0.029)	(0.029)	(0.030)	(0.030)
Post Sarbanes–Oxley	-2.842***	-2.794***	-2.811***	-2.729***
	(0.744)	(0.722)	(0.732)	(0.747)
Pre-merger use of the big four	-0.256	-0.116	-0.098	-0.381*
	(0.204)	(0.210)	(0.217)	(0.200)
Total assets, logged	-0.037	-0.047	-0.049	-0.044
	(0.052)	(0.052)	(0.053)	(0.052)
Firm Leverage	0.015*	0.014*	0.014*	0.016*
	(0.008)	(0.008)	(0.008)	(0.008)
EBITA, fiscal year	-0.022***	-0.023***	-0.025***	-0.022***
	(0.006)	(0.006)	(0.006)	(0.006)
Listed on major U.S. exchange	-1.318***	-1.324***	-1.306***	-1.346***
	(0.221)	(0.224)	(0.223)	(0.223)
GDP per capita, logged	0.053	0.062	0.112	0.039
	(0.074)	(0.073)	(0.087)	(0.076)
GDP growth rate	0.037*	0.039*	0.042	0.036
	(0.023)	(0.022)	(0.027)	(0.023)
Year fixed-effects	YES	YES	YES	YES
Country dummies	NO	NO	YES	NO
Country x Big4 auditor	NO	NO	YES	NO
Chi-Square	187.149	181.902	375.232	193.160
N	2321	2321	2321	2321

Table 6: Home Institutions, Auditor Reputation, and Suspect Corporate Governance

Panels A and B examines how home country institutions influence a firm's auditor selection and suspect corporate governance. Voice and accountability index captures perception of the extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association and a free media. The measure comes from the World Bank Governance Indicators project. The public enforcement index captures the intensity of legal regulation of self-dealing transactions and the measure comes from Djankov, La Porta, Lopez-de-Silanes, and Shleifer (2008). In these panels, both GDP Growth rate and GDP per capita (in constant year-2000 US Dollar) data are from the World Development Index.

Panel C looks at the Chinese cases and examines how home province institution influences a firm's auditor selection and suspect corporate governance. We use the NERI Index of Marketization of China's Provinces (Fan and Wang 2009) which has a total of 23 subcomponents that cover five general areas - 1) market and government relationships; 2) development of the non-state enterprise sector; 3) development of the commodity market; 4) development of the factor markets; and 5) market intermediaries and the legal environment for the market. We focus on their ranking of the overall institutional environment in each province, which is the average score across the five subcomponents. GDP growth rate and GDP per capita data are from the China Statistical Yearbooks.

In all three panels, Model 1 is an ordered logit regressions where the dependent variable (DV) measures the status (from 0 to 5) of the selected auditor. Models 2-6 are logit regressions where the DVs are dummies. In Model 2, the DV equals one when the auditor was a Big Four. In Model 3, the DV equals one when the auditor was trivially small. In Models 4-6, the DV equals one when the firm filed its annual report to the SEC late. Robust standard errors corrected for clustering at the firm level are presented below the coefficients. Asterisks denote significance levels of two-tailed test: *, **, *** indicate significance at the 10%, 5% and 1% level, respectively.

Panel A: Accountability, Auditor Status and Suspect Corporate Governance

	DV: Auditor reputation	DV: Big 4 auditor	DV: Small auditor	DV: Late annual report to the SEC		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Year of reverse merger	-0.078**	-0.213**	0.069*	0.114***	0.110***	0.121***
	(0.036)	(0.097)	(0.036)	(0.029)	(0.029)	(0.030)
Post Sarbanes–Oxley Era	-1.018	0.749	-0.022	-2.887***	-2.854***	-2.781***
	(0.705)	(1.278)	(1.139)	(0.727)	(0.727)	(0.721)
Pre-merger use of the big four	1.799***	2.763***	-1.015**	-0.234	-0.099	-0.355*
	(0.309)	(0.325)	(0.430)	(0.203)	(0.209)	(0.199)
Total firm assets, logged	0.377***	0.234*	-0.392***	-0.049	-0.058	-0.057
	(0.060)	(0.140)	(0.070)	(0.053)	(0.052)	(0.053)
Firm leverage	-0.011	-0.070**	0.005	0.015*	0.014*	0.016*
	(0.007)	(0.030)	(0.008)	(0.009)	(0.008)	(0.009)
EBITA, fiscal year	0.000	0.016	0.001	-0.023***	-0.024***	-0.022***
	(0.005)	(0.010)	(0.006)	(0.006)	(0.006)	(0.006)
Listed on major U.S. exchange	0.497***	0.754**	-0.581*	-1.322***	-1.328***	-1.350***
	(0.189)	(0.384)	(0.304)	(0.220)	(0.223)	(0.222)
GDP per capita at country level, logged	-0.118	0.464	0.279	0.181	0.181	0.176
	(0.148)	(0.667)	(0.199)	(0.112)	(0.112)	(0.113)
GDP growth rate at country level	-0.029	0.054	0.076**	0.013	0.015	0.010
	(0.027)	(0.098)	(0.033)	(0.028)	(0.028)	(0.029)
Voice and accountability index	0.270*	0.300	-0.189	-0.206	-0.193	-0.219
	(0.144)	(0.472)	(0.171)	(0.144)	(0.144)	(0.146)
Auditor Status				-0.117***		
				(0.042)		
Big four auditor					-0.829***	
					(0.252)	
Small auditor						0.221*
						(0.131)
Year fixed-effects	YES	YES	YES	YES	YES	YES
Chi-Square	189.646	149.081	117.942	185.181	178.804	192.302
N	2982	2982	2982	2321	2321	2321

Panel B: Public Enforcement of Security Law, Auditor Status and Corporate Governance

	DV: Auditor reputation	DV: Big 4 auditor	DV: Small auditor	DV: Late annual report to the SEC		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Year of reverse merger	-0.089***	-0.235***	0.076**	0.115***	0.113***	0.122***
	(0.034)	(0.086)	(0.034)	(0.030)	(0.029)	(0.030)
Post Sarbanes–Oxley	-2.117**	1.128	1.306	-2.730***	-2.722***	-2.593***
	(0.973)	(1.576)	(1.341)	(0.746)	(0.733)	(0.740)
Pre-merger use of the big four	1.901***	2.831***	-1.025**	-0.231	-0.098	-0.344*
	(0.309)	(0.331)	(0.410)	(0.205)	(0.212)	(0.200)
Total assets, logged	0.378***	0.417***	-0.365***	-0.029	-0.036	-0.036
	(0.056)	(0.144)	(0.063)	(0.053)	(0.053)	(0.054)

Table 6 (continued)

Firm leverage	-0.014*	-0.066**	0.008	0.017**	0.016*	0.018**
	(0.007)	(0.029)	(0.008)	(0.009)	(0.009)	(0.009)
EBITA, fiscal year	0.003	0.022***	0.000	-0.024***	-0.025***	-0.024***
	(0.005)	(0.008)	(0.005)	(0.006)	(0.006)	(0.006)
Listed on major U.S. exchange	0.466***	0.959***	-0.592**	-1.332***	-1.335***	-1.360***
	(0.176)	(0.330)	(0.288)	(0.222)	(0.225)	(0.224)
GDP per capita at country level, logged	-0.031	0.498*	0.275**	0.035	0.044	0.017
	(0.105)	(0.288)	(0.112)	(0.092)	(0.093)	(0.093)
GDP growth rate at country level	-0.052**	0.118*	0.106***	0.027	0.033	0.022
	(0.026)	(0.069)	(0.029)	(0.026)	(0.026)	(0.026)
Public enforcement index	0.525***	2.446***	-0.356	-0.080	-0.016	-0.112
	(0.195)	(0.465)	(0.223)	(0.204)	(0.206)	(0.208)
Auditor Status				-0.116***		
				(0.042)		
Big four auditor					-0.836***	
					(0.260)	
Small auditor						0.226*
						(0.132)
Year fixed-effects	YES	YES	YES	YES	YES	YES
Chi-Square	219.958	204.111	139.107	182.540	176.174	188.857
N	3242	3242	3242	2293	2293	2293

Panel C Local Institution, Auditor Status and Corporate Governance in China

	DV: Auditor reputation	DV: Big 4 auditor	DV: Small auditor	DV: Late annual report to the SEC		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Year of reverse merger	-0.158**	-0.101	0.181**	0.018	0.028	0.019
	(0.071)	(0.213)	(0.082)	(0.068)	(0.069)	(0.069)
Pre-merger use of the big four	2.109***	4.149***	-1.649***	-0.346	-0.289	-0.435
	(0.471)	(0.858)	(0.613)	(0.306)	(0.323)	(0.297)
Total firm assets, logged	0.068	-0.204	-0.143	-0.225*	-0.236*	-0.220*
	(0.138)	(0.359)	(0.154)	(0.125)	(0.125)	(0.125)
Firm leverage	0.045	0.003	0.004	-0.005	-0.010	-0.010
	(0.035)	(0.055)	(0.031)	(0.042)	(0.044)	(0.044)
EBITA, fiscal year	0.020**	0.031	-0.031***	-0.021**	-0.022**	-0.021**
	(0.009)	(0.020)	(0.011)	(0.009)	(0.009)	(0.009)
Listed on major U.S. exchange	0.687***	1.455*	-0.511	-1.111***	-1.105***	-1.112***
	(0.267)	(0.765)	(0.350)	(0.265)	(0.269)	(0.268)
GDP per capita at provincial level, logged	0.618	0.564	-0.797	0.744*	0.690*	0.742*
	(0.386)	(0.969)	(0.495)	(0.387)	(0.378)	(0.392)
GDP growth rate at level	2.979	10.937	-1.143	3.436	3.144	3.462
	(4.122)	(11.424)	(4.992)	(3.651)	(3.655)	(3.609)
Overall institutional of home province	0.015	0.190	0.061	-0.171*	-0.169*	-0.176*
	(0.103)	(0.261)	(0.113)	(0.095)	(0.095)	(0.097)
Auditor status				-0.109		
				(0.078)		
Big four auditor					-0.713	
					(0.583)	
Small auditor						0.369
						(0.240)
Year fixed-effects	YES	YES	YES	YES	YES	YES
Chi-Square	115.927	62.836	56.203	123.633	124.892	122.696
N	830	830	830	732	732	732

Table 7: Incorporation in Nevada, Auditor Status and Suspect Corporate Governance

This table reports results related to the state of Nevada. Models 1-2 are logit regressions, where the dependent variable is a dummy that equals one if the SEC filer was incorporated in the state of Nevada. Model 3 is an ordered logit regression where the dependent variable measures the reputation (from 0 to 5) of the selected auditor. Models 4-9 are logit regressions. In Model 4, the dependent variable is a dummy that equals one when the auditor was among the Big Four accounting firm. In Model 5, the dependent variable is a dummy that equals one when the accounting firm was trivially small. In Models 6-7, the dependent variable is a dummy that equals one when the firm filed its annual report to the SEC late. In Model 8-9, the dependent variable is a dummy that equals one when the firm filed anything to the SEC late. Robust standard errors are presented below the coefficients for Models 1-2 and robust standard errors corrected for clustering at the firm level are presented below the coefficients for Models 3-9. Asterisks denote significance levels of two-tailed test: *, **, *** indicate significance at the 10%, 5% and 1% level, respectively.

	DV: Nevada incorporation		DV: Auditor reputation	DV: Big 4 auditor	DV: Small auditor	DV: Late annual report to the SEC	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Year of reverse merger	0.116***	0.153***	-0.083**	-0.176**	0.085**		0.115***
	(0.036)	(0.038)	(0.033)	(0.079)	(0.034)		(0.030)
Pre-merger use of the big four	-0.779***	-0.842***	1.938***	2.813***	-1.101***		-0.236
	(0.261)	(0.269)	(0.307)	(0.335)	(0.401)		(0.205)
Post Sarbanes–Oxley	-0.033	-0.048	-1.962**	1.323	1.083		-2.736***
	(0.288)	(0.295)	(0.948)	(1.646)	(1.281)		(0.735)
Total firm assets, logged	-0.145**	-0.098	0.369***	0.370**	-0.364***		-0.043
	(0.066)	(0.067)	(0.057)	(0.152)	(0.065)		(0.053)
Firm leverage	-0.027**	-0.029**	-0.013*	-0.071**	0.007		0.015*
	(0.013)	(0.013)	(0.007)	(0.030)	(0.008)		(0.008)
EBITA, fiscal year	-0.006	-0.006	0.002	0.015*	-0.002		-0.023***
	(0.008)	(0.008)	(0.005)	(0.008)	(0.005)		(0.006)
Listed on major U.S. exchange			0.450**	0.657*	-0.615**		-1.324***
			(0.178)	(0.348)	(0.287)		(0.220)
GDP per capita at country level, logged	-0.050	-0.243*	-0.070	-0.056	0.233		0.057
	(0.110)	(0.132)	(0.123)	(0.527)	(0.190)		(0.086)
GDP growth rate at country level	-0.013	0.019	-0.029	0.095	0.038		0.022
	(0.028)	(0.033)	(0.028)	(0.079)	(0.032)		(0.028)
Common law	0.487*	-0.108	0.083	1.000	0.126		0.296
	(0.251)	(0.297)	(0.238)	(0.774)	(0.299)		(0.233)
China		-0.837**	-0.435	-0.934	0.862*		0.288
		(0.403)	(0.320)	(1.368)	(0.455)		(0.295)
Canada		1.001***	0.298	1.630***	-0.048		-0.225
		(0.242)	(0.216)	(0.496)	(0.246)		(0.196)
Nevada			-0.057	-0.468	-0.149	0.209	-0.028
			(0.174)	(0.371)	(0.199)	(0.158)	(0.152)
Delaware			-0.075	0.019	0.116	0.049	-0.023
			(0.192)	(0.413)	(0.218)	(0.173)	(0.172)
Auditor status							-0.118***
							(0.042)
Year fixed-effects	NO	NO	YES	YES	YES	YES	YES
Chi-Square	46.108	62.610	218.084	219.035	132.691	56.741	189.036
N	873	873	3290	3290	3290	2334	2321

Table 8: Entry Timing, Auditor Status and SEC Comment Letters

This tables reports regressions on SEC comment letters. When the SEC wants to ask questions about a company's SEC filing, it sends the company a comment letter. Such comment letters are now on the Internet for years 2004 onward. Model 1 is an OLS regression where the dependent variable is the number of letters sent by the SEC to the company in the given year. Models 2 – 11 are logit regressions that examine the subgroup of firms that received SEC letters. Models 2 and 3 examine the type of SEC comment and the dependent variable is a dummy that equals one if the firm receives SEC comment on press release (on 8-K or 6-K) and registration statement respectively. Models 4-11 examine the nature of the SEC comments. In Model 4, the dependent variable is a dummy that equals one if the firm received letters from the SEC that commented on the corporate governance practices of the company, its internal controls, incorporation and chart, and etc. In Model 5, the dependent variable is a dummy that equals one if the firm received letters from the SEC that commented on business risks disclosed by the company and government regulations. In Model 6, the dependent variable is a dummy that equals one if the firm received letters from the SEC that commented on accounting policies, accountants, and the opinions of auditors. In Model 7, the dependent variable is a dummy that equals one if the firm received letters from the SEC that comments on the operations of the business, its strategy, geographic location, development plan and etc. In Model 8, the dependent variable is a dummy that equals one if the company received letters from the SEC that commented on stock, shareholders, warrants, debt instruments, dividend policies, and other security-related issues. In Model 9, the dependent variable is a dummy that equals one if the company received letters from the SEC that commented on compensation policies. In Model 10, the dependent variable is a dummy that equals one if the company received letters from the SEC that commented on mergers, acquisitions, private placements, business combinations and other deals with other companies. In Model 11, the dependent variable is a dummy that equals one if the company received letters from the SEC that commented on event disclosures, legal matters and other issues. Robust standard errors corrected for clustering at the firm level are presented below the coefficients. Asterisks denote significance levels of two - tailed test: *, **, *** indicate significance at the 10%, 5% and 1% level, respectively. All the regressions have the following controls – firm's total assets, leverage, EBITA, listing, home country's level of GDP per capita, and GDP growth rate. For the consideration of space, the coefficients and standard errors for these control variables are not reported.

	DV: SEC letter counts	DV: Press release	DV: Registration	DV: Governance	DV: Risk	DV: Accounting	DV: Operation	DV: Securities	DV: Compen-sation	DV: Transaction	DV: Other disclosure
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11
Year of reverse merger	0.028***	0.150***	0.190***	0.166***	0.187***	0.099**	0.051	0.252***	0.055	0.152***	0.161***
	(0.010)	(0.041)	(0.049)	(0.037)	(0.047)	(0.041)	(0.035)	(0.047)	(0.036)	(0.038)	(0.043)
Auditor status	0.018	-0.112*	0.083	0.058	0.106	-0.032	0.057	0.069	0.048	0.054	0.045
	(0.021)	(0.061)	(0.062)	(0.065)	(0.069)	(0.065)	(0.054)	(0.079)	(0.056)	(0.055)	(0.079)
Pre-merger use of the big four	0.035	0.033	0.034	-0.474*	0.129	0.045	-0.192	-0.648**	0.170	-0.295	-0.641**
	(0.107)	(0.288)	(0.335)	(0.278)	(0.283)	(0.281)	(0.244)	(0.325)	(0.268)	(0.258)	(0.316)
Common law	-0.076	-0.788**	-0.566	-0.205	-0.915**	0.194	-0.126	-0.723	-0.276	0.135	-0.171
	(0.108)	(0.345)	(0.416)	(0.433)	(0.411)	(0.437)	(0.333)	(0.512)	(0.366)	(0.347)	(0.502)
China	-0.074	-0.432	1.837**	-1.457**	-1.424**	-0.916	-0.620	-1.447**	-0.669	0.238	-1.914**
	(0.153)	(0.549)	(0.839)	(0.622)	(0.653)	(0.765)	(0.581)	(0.732)	(0.604)	(0.539)	(0.851)
Canada	0.077	0.210	0.332	0.124	0.896**	0.112	0.537**	0.407	0.883***	-0.113	0.609*
	(0.081)	(0.270)	(0.340)	(0.303)	(0.375)	(0.328)	(0.272)	(0.359)	(0.295)	(0.263)	(0.346)
Nevada	0.109	0.372*	0.262	0.157	-0.312	0.273	-0.217	0.123	-0.136	-0.012	0.003
	(0.070)	(0.211)	(0.244)	(0.224)	(0.234)	(0.242)	(0.194)	(0.268)	(0.205)	(0.197)	(0.246)
Delaware	0.181**	0.349	0.513*	0.392	-0.201	0.132	0.022	0.175	0.131	0.207	0.202
	(0.078)	(0.238)	(0.278)	(0.256)	(0.235)	(0.244)	(0.204)	(0.296)	(0.224)	(0.208)	(0.283)
Year fixed-effects	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Chi-Square		59.162	82.842	48.651	72.147	23.670	44.408	59.282	44.357	44.009	33.333
R-Square	.13681										
N	2768	1008	1008	1008	1008	1008	1008	997	1008	1008	962

Table 9: Auditor Status and SEC Filing Restatement

This table reports logit regressions on SEC filing restatement. Models 1-4 examine the whole sample and the dependent variable is a dummy that equals one if a year is within a period that was restated. Models 5-12 examine the subsample where financial restatements were issued. In Models 5-8, the dependent variable is a dummy that equals one if the firm's financial restatement revealed SEC investigation, identified financial fraud, irregularities, or misrepresentation, or had revised its earnings downward to negatively impact the net income. In Models 9-12, the dependent variable is a dummy that equals one if the firm's financial restatement had negative impact on net income. Models 3, 7 & 11 include Country dummies and Country*Big4 interactions, but only for countries where the Big Four accounting firms were observed in the data. Some observations drop out in Models 3 & 11 due to the lack of variance in the Country dummies and the country*Big4 interaction terms. Asterisks denote significance levels of two-tailed test: *, **, *** indicate significance at the 10%, 5% and 1% level, respectively. All the regressions have the following controls – firm's total assets, leverage, EBITA, listing, home country's level of GDP per capita, and GDP growth rate. For the consideration of space, the coefficients and standard errors for these control variables are not reported.

	DV: This year is within a period that was restated				DV: Restatement revealed SEC investigation, identified financial fraud or misrepresentation, or had negative effect on net income				DV: Restatement had negative effect on net income			
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12
Auditor status	-0.095**				-0.034				-0.019			
	(0.046)				(0.115)				(0.110)			
Big 4 auditor		-0.460	-0.805**			-1.078*	-1.320*			-0.794	-0.844	
		(0.281)	(0.334)			(0.639)	(0.681)			(0.606)	(0.662)	
Small auditor				0.300**				0.056				0.139
				(0.123)				(0.343)				(0.318)
Pre-merger use of the Big 4	-0.049	-0.050	-0.140	-0.143	0.790	1.243	1.258	0.745	1.313	1.658**	1.572*	1.303
	(0.227)	(0.223)	(0.238)	(0.226)	(0.846)	(0.821)	(0.826)	(0.873)	(0.870)	(0.838)	(0.818)	(0.880)
Year of reverse merger	0.069**	0.068**	0.069**	0.065**	0.037	0.032	0.034	0.035	-0.012	-0.015	-0.008	-0.017
	(0.033)	(0.033)	(0.033)	(0.033)	(0.084)	(0.085)	(0.084)	(0.085)	(0.079)	(0.080)	(0.082)	(0.081)
Post Sarbanes–Oxley	-0.870**	-0.829**	-0.902**	-0.829**	1.409	1.254	1.016	1.428	1.394	1.297	1.710	1.396
	(0.406)	(0.402)	(0.406)	(0.408)	(1.181)	(1.248)	(1.312)	(1.187)	(1.189)	(1.226)	(1.319)	(1.190)
Common law	-0.597**	-0.599**	-0.227	-0.627**	0.304	0.329	0.480	0.307	0.140	0.162	0.539	0.136
	(0.271)	(0.272)	(0.316)	(0.272)	(0.955)	(0.946)	(1.038)	(0.953)	(0.720)	(0.711)	(0.833)	(0.712)
Canada	0.479**	0.505**	0.014	0.465**	-0.974	-0.859	-1.152	-0.972	-0.165	-0.073	0.203	-0.169
	(0.237)	(0.241)	(0.337)	(0.236)	(0.854)	(0.869)	(1.136)	(0.858)	(0.604)	(0.612)	(0.896)	(0.606)
China	-0.235	-0.253	0.153	-0.274	-0.721	-0.581	-0.468	-0.738	-0.386	-0.299	-0.430	-0.395
	(0.393)	(0.396)	(0.548)	(0.405)	(1.626)	(1.589)	(1.793)	(1.606)	(1.134)	(1.117)	(1.281)	(1.113)
Nevada	-0.037	-0.043	-0.068	-0.030	1.260***	1.322***	1.323***	1.265***	0.960**	0.994**	0.986**	0.971**
	(0.179)	(0.179)	(0.181)	(0.180)	(0.406)	(0.416)	(0.412)	(0.409)	(0.387)	(0.395)	(0.407)	(0.389)
Delaware	0.022	0.026	0.018	0.023	1.054**	1.086**	1.114**	1.054**	0.548	0.557	0.552	0.546
	(0.189)	(0.189)	(0.195)	(0.190)	(0.436)	(0.433)	(0.438)	(0.435)	(0.398)	(0.394)	(0.402)	(0.396)
Year fixed-effects	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Country dummies	NO	NO	YES	NO	NO	NO	YES	NO	NO	NO	YES	NO
CountryxBig4 Auditor	NO	NO	YES	NO	NO	NO	YES	NO	NO	NO	YES	NO
Chi-square	101.776	101.328	133.596	100.705	39.692	51.392	55.000	39.436	28.678	33.802	38.739	28.531
N	2314	2314	2302	2314	508	508	508	508	508	508	496	508

Table 10: Entry Timing, Auditor Status and Accruals

This table reports OLS regressions for accruals calculated following the method explained in Srinivasan, Wahid and Yu (2011). In Models 1& 2, the dependent variable is total accruals. In Models 3 & 4, the dependent variable is accruals over operating, which is the absolute value of total accruals over the absolute value of cash flow from operations. For the definition of the two accrual quality measures in models 5-8, please see the main text. In Models 9 & 10, the dependent variable is the negative value of the Spearman correlation of change in total accruals to the change in operating cash flows, calculated on a rolling basis over the three prior years. Robust standard errors corrected for clustering at the firm level are presented below the coefficients. Asterisks denote significance levels of two-tailed test: *, **, *** indicate significance at the 10%, 5% and 1% level, respectively. All the regressions have the following controls –home country's level of GDP per capita, and GDP growth rate. For the consideration of space, the coefficients and standard errors for these control variables are not reported.

	DV: Total Accruals		DV: Accruals over Operations		DV: Accrual Quality Measure A		DV: Accrual Quality Measures B		DV: Rho Value of Accruals	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10
Year of reverse merger	0.097***	0.093**	0.074**	0.076**	0.015*	0.015*	-0.012	-0.014	0.029***	0.028***
	(0.037)	(0.038)	(0.034)	(0.034)	(0.008)	(0.008)	(0.136)	(0.136)	(0.010)	(0.010)
Auditor status	-0.130		-0.143***		-0.004		-0.243		0.024	
	(0.080)		(0.052)		(0.012)		(0.189)		(0.015)	
Big 4 auditor		-1.221**		-0.700**		-0.011		-2.027*		0.071
		(0.573)		(0.297)		(0.074)		(1.175)		(0.089)
Pre-merger use of the big four	-0.601	-0.299	-0.342	-0.267	0.079	0.077	1.606	2.047	-0.089	-0.082
	(0.507)	(0.544)	(0.289)	(0.305)	(0.071)	(0.074)	(1.151)	(1.268)	(0.089)	(0.094)
Post Sarbanes–Oxley	-4.690***	-4.487***	0.731	0.883	-0.041	-0.038	-3.175	-2.448	-1.576***	-1.627***
	(1.562)	(1.575)	(1.169)	(1.159)	(0.146)	(0.148)	(4.298)	(4.360)	(0.225)	(0.221)
Total firm assets, logged	0.409***	0.403***	0.295***	0.275***	-0.013	-0.014	-0.115	-0.130	-0.048**	-0.044**
	(0.094)	(0.091)	(0.073)	(0.072)	(0.018)	(0.018)	(0.234)	(0.234)	(0.020)	(0.020)
Firm leverage	0.008	0.007	0.053***	0.052***	0.001	0.001	-0.008	-0.010	-0.003	-0.003
	(0.007)	(0.007)	(0.013)	(0.013)	(0.002)	(0.002)	(0.033)	(0.033)	(0.003)	(0.003)
EBITA, fiscal year	0.082***	0.083***	-0.021***	-0.020***	0.003**	0.003**	-0.021	-0.019	-0.002*	-0.003*
	(0.017)	(0.016)	(0.005)	(0.006)	(0.001)	(0.001)	(0.028)	(0.029)	(0.001)	(0.001)
Listed on major U.S. exchange	1.353***	1.367***	0.037	0.023	-0.047	-0.048	0.902	0.922	-0.010	-0.006
	(0.420)	(0.419)	(0.258)	(0.258)	(0.052)	(0.052)	(0.691)	(0.684)	(0.062)	(0.062)
Common law	0.141	0.174	0.341	0.346	0.143*	0.144*	0.457	0.546	0.139	0.140
	(0.301)	(0.299)	(0.285)	(0.286)	(0.073)	(0.073)	(1.306)	(1.304)	(0.089)	(0.089)
China	1.335**	1.273**	0.243	0.210	-0.036	-0.037	1.000	0.878	-0.077	-0.074
.	(0.548)	(0.546)	(0.452)	(0.453)	(0.110)	(0.110)	(1.827)	(1.792)	(0.119)	(0.119)
Canada	-0.171	-0.074	0.364	0.405*	-0.075	-0.074	0.195	0.426	-0.024	-0.028
	(0.245)	(0.236)	(0.227)	(0.231)	(0.064)	(0.065)	(1.148)	(1.146)	(0.074)	(0.074)
Nevada	0.283	0.259	0.096	0.090	0.006	0.006	0.341	0.286	0.034	0.033
	(0.260)	(0.261)	(0.191)	(0.190)	(0.052)	(0.052)	(0.822)	(0.822)	(0.057)	(0.058)
Delaware	0.046	0.043	0.237	0.242	-0.098*	-0.098*	0.933	0.930	-0.045	-0.046
	(0.313)	(0.315)	(0.222)	(0.220)	(0.056)	(0.056)	(0.846)	(0.845)	(0.062)	(0.062)
Year fixed-effects	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
R-Square	0.167	0.169	0.031	0.030	0.027	0.027	0.011	0.014	0.042	0.041
N	3135	3135	3283	3283	2361	2361	2361	2361	2549	2549

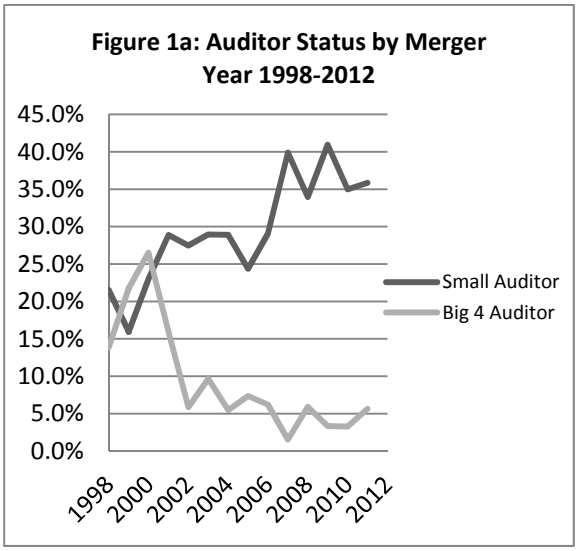
Table 11: Entry Timing, Auditor Status and Tobin's Q

This table reports regressions on Tobin's Q. All models are OLS regressions. The dependent variable is Tobin's Q Winsorized at 1% and 99% of the percentile distribution in Models 1-3. Models 1-3 examine all reverse merger cases; Models 4-6 repeat the analyses in Models 1-3 but temporarily drop observations of extreme Q values (> 25.07); Models 7-9 repeat the analyses in Models 4-6 but temporarily restrict the sample to the subset of observations by which time the firm were listed on a major U.S. stock exchange. Robust standard errors corrected for clustering at the firm level are presented below the coefficients. Asterisks denote significance levels of two-tailed test: *, **, *** indicate significance at the 10%, 5% and 1% level, respectively. All the regressions have the following controls- home country's level of GDP per capita, and GDP growth rate. For the consideration of space, the coefficients and standard errors for these control variables are not reported.

	Full sample			All observations with Q ≤25.07			Subsample on main exchanges with Q ≤25.07		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Auditor status	-16.500*			0.231***			0.011		
	(9.333)			(0.077)			(0.078)		
Big 4 auditor		-21.432			0.768*			0.804***	
		(29.915)			(0.440)			(0.307)	
Small auditor			107.807***			-0.880***			-0.602*
			(36.211)			(0.242)			(0.339)
Year of reverse merger	14.496**	15.365**	13.949**	0.087	0.106*	0.084	0.125**	0.116**	0.135***
	(6.609)	(6.683)	(6.464)	(0.055)	(0.055)	(0.054)	(0.050)	(0.048)	(0.051)
Pre-merger use of the Big 4	-36.148*	-52.224**	-51.457**	-0.104	-0.156	0.169	0.918**	0.472	0.894**
	(20.244)	(21.406)	(22.908)	(0.330)	(0.363)	(0.325)	(0.388)	(0.330)	(0.369)
Post Sarbanes–Oxley	-102.252**	-93.548*	-82.685*	1.017	0.034	0.868	3.398***	3.526***	3.329***
	(48.234)	(49.886)	(47.883)	(1.370)	(1.422)	(1.369)	(1.050)	(0.997)	(1.037)
Total firm assets, logged	-6.238	-9.668	-2.491	-1.404***	-1.404***	-1.412***	-1.220***	-1.216***	-1.253***
	(10.105)	(9.393)	(9.924)	(0.106)	(0.105)	(0.105)	(0.286)	(0.286)	(0.294)
Firm leverage	23.979***	24.058***	23.935***	0.101**	0.105**	0.098**	-0.280	-0.199	-0.173
	(4.605)	(4.620)	(4.565)	(0.044)	(0.044)	(0.044)	(0.729)	(0.729)	(0.728)
EBITA, fiscal year	0.427	0.408	0.346	0.012***	0.012**	0.013***	0.012***	0.009**	0.012***
	(0.311)	(0.309)	(0.316)	(0.004)	(0.005)	(0.004)	(0.004)	(0.004)	(0.004)
Listed on major U.S. exchange	46.401***	41.771***	46.630***	1.465***	1.378***	1.491***			
	(12.977)	(12.872)	(13.790)	(0.237)	(0.238)	(0.232)			
Common law	-53.079	-54.755	-56.589	-0.677	-0.597	-0.635	1.467	1.444	1.433
	(45.998)	(45.750)	(45.058)	(0.495)	(0.491)	(0.497)	(0.909)	(0.891)	(0.892)
Canada	76.082**	75.135*	74.084**	0.332	0.230	0.396	-1.373	-1.596	-1.399
	(37.615)	(38.641)	(36.596)	(0.426)	(0.423)	(0.423)	(1.299)	(1.303)	(1.295)
China	-84.757**	-84.226**	-96.470**	-1.556**	-1.526**	-1.467**	0.340	0.120	0.332
	(40.816)	(40.926)	(42.342)	(0.642)	(0.640)	(0.646)	(1.471)	(1.457)	(1.463)
Nevada	-53.453	-52.530	-48.996	-0.096	-0.082	-0.129	0.631	0.742*	0.609
	(41.249)	(41.340)	(39.550)	(0.279)	(0.278)	(0.279)	(0.391)	(0.379)	(0.393)
Delaware	-56.018	-55.107	-56.452	-0.252	-0.269	-0.236	0.594*	0.646*	0.634*
	(38.400)	(38.325)	(37.787)	(0.298)	(0.300)	(0.295)	(0.346)	(0.338)	(0.346)
Year fixed effects	YES	YES	YES	YES	YES	YES	YES	YES	YES
R-Square	0.126	0.125	0.132	0.247	0.248	0.249	0.300	0.308	0.305
N	3219	3219	3219	2751	2751	2751	467	467	467

Figure 1: The Use of Different Types of Auditors across Time

The sample contains 916 unique firms and 3144 firm-year observations between 1996 and 2010. As the number of observations was small for years before 1998, these observations were lumped to the year of 1998.



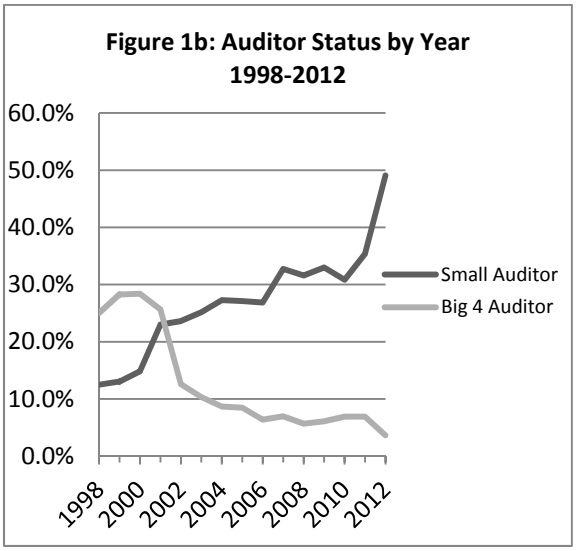


Figure 2: Reverse Merger Timing and Late Annual Report

The sample contains 990 unique firms with 3541 firm-year observations between 1997 and 2010. The variable late annual report is a dummy marker for a firm filing annual report late to the SEC in the focal year; the variable anything filed late is a dummy marker for a firm filing anything late to the SEC in the focal year.

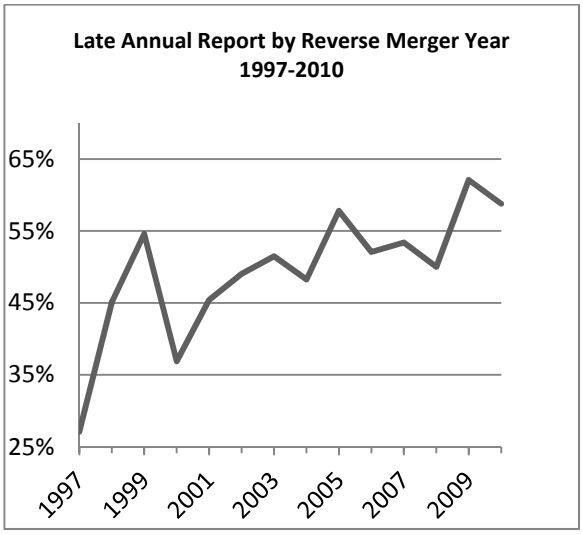
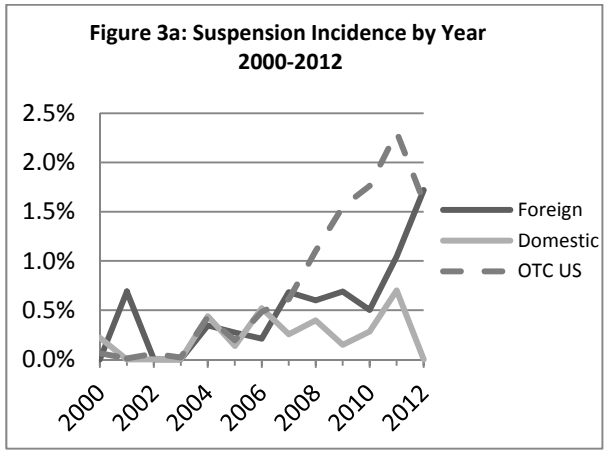
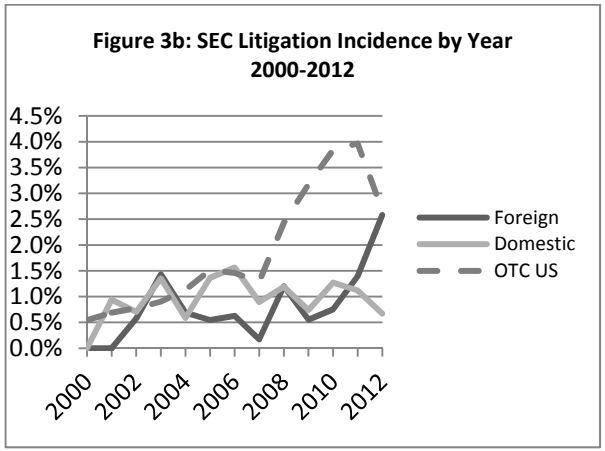


Figure 3: Formal Enforcements Across Three Types of Firms

These figures compare formal enforcement outcomes during the period of 01/2000 to 09/2012 across three types of firms – foreign firms that engaged in cross-border reverse mergers, domestic firms that engaged in reverse mergers, and firms that engaged in over-the-counter (OTC) trading in the U.S. We gathered the formal enforcement information from Knowledge Mosaic, SEC websites, and Stanford Law School Securities Class Action Clearing House website.





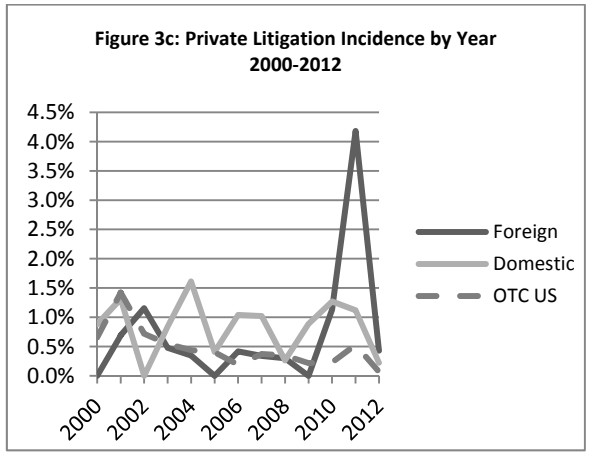
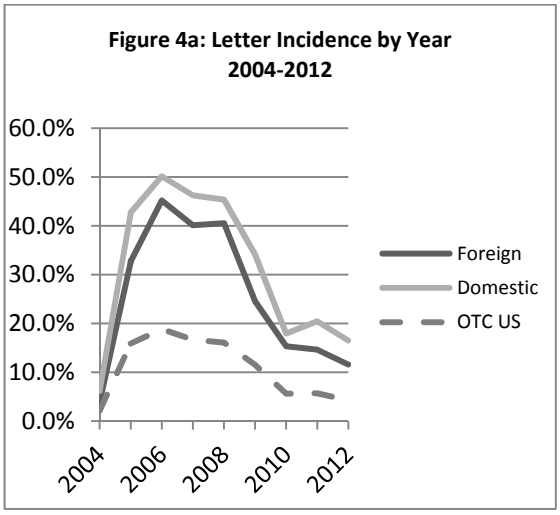
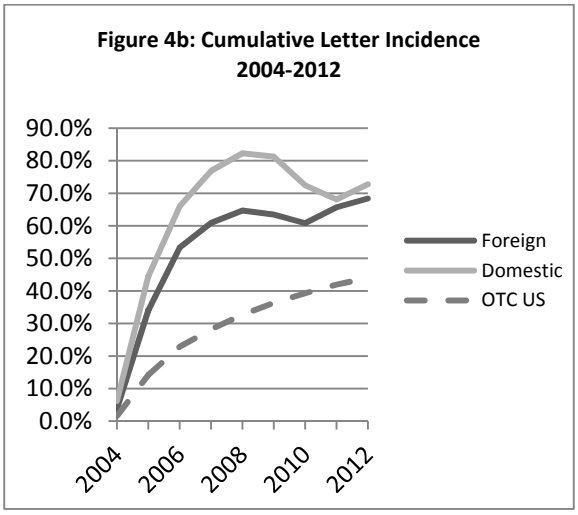


Figure 4: SEC Letters Across Three Types of Firms

These figures compare the SEC letter incidence across three types of firm during the period between 01/2004 and 09/2012. When the SEC wants to ask questions about a company's SEC filing, it sends the company a comment letter. Such comment letters are now on the Internet for years 2004 onward.





Appendix:
Figure 1: Tobin's Q