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The Effect of Corporate Governance Regulatory Intervention on Firm Decisions and Market Reactions, the Italian Case

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Abstract:

This paper investigates whether Italian companies that cross-list in the United States between 1993 and 2005 show (i) a change in their internal policies as anticipated by the bonding hypothesis, (ii) an increase in market value, or (iii) an increase in the access to capital funds. We use the unique environment created by the 1998 Draghi reform which significantly improved the protection of Italian listed companies' minority shareholders and we further examine the impact of legislated changes in corporate governance in Italy on the decision of Italian companies to cross-list in the United States.

Our results indicate that following the Draghi reform (i) firms that cross-list in the United States modify their dividend and cash policies as anticipated by the bonding hypothesis. Contrary to prior research, (ii) we do not find evidence that cross-listing serves to enhance shareholder value or (iii) is used as a vehicle to more easily access capital funds either before or after the domestic corporate governance is improved.

The results of this study provide evidence that country level legislative innovations intended to enhance a weak corporate governance system can be a valid and effective substitute to the bonding mechanism by providing an alternative signal of a firm's quality.

Keywords: Italy, ADR, cross-listing, investor protection, regulation change, corporate governance, bonding hypothesis, signaling.
Data availability: The data are available from public sources.

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1. **Introduction[1]**

    This paper investigates whether Italian companies that cross-list in the United States show (i) a change in their internal policies as anticipated by the bonding hypothesis, (ii) an increase in market value, or (iii) an increase in the access to capital funds. We answer this question in both the weak corporate governance environment before the 1998 Draghi reform and also after this shareholder protection reform. In this way we provide evidence of the impact of corporate governance reform on the behavior of firms cross-listed in the United States and eventual changes in their actions (cross-list vs. not cross-list) after the incentives to cross-listing changed substantially.

    A foreign firm can cross-list its shares in the United States capital markets by either listing their shares directly on an exchange[2] or by using the American Depository Receipts (ADRs) system. ADRs are issued by custodian banks and trade on an organized exchange[3], over the counter market, or on Portal. Reese and Weisbach (2001) and Karolyi (2005) present a thorough explanation of the mechanics of cross-listing and we refer the reader to their manuscripts for further review of that process. We include all forms of cross-listing of Italian firms in our sample (type I, II, and III ADRs) as the quality signaling benefits are roughly similar for all types, even if normative requirements are different.

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[1] We would like to thank participants at the 4th Workshop on Accounting and Regulation - EIASM, Siena (Italy), AAA International Accounting Section 2007 Midyear Meeting – Charleston, SC, University of Tennessee, Ball State University, the University at Albany SUNY, and Mara Faccio (Purdue University) for their helpful comments and suggestions. We also thank Bruce Behn and Ronald Shrieves for their guidance. All mistakes are our own.

[2] This method is primarily used by Canadian and Israeli firms.

[3] Including NYSE, Nasdaq, and AMEX.

Previous research analyzes groups of non-United States countries in order to identify cross-listing motivation and outcomes. These studies find strong evidence that when firms cross-list: transactions costs decrease (Tinic and West 1974; Smith and Sofianos 1997; Domowitz et al. 1998; Foerster and Karolyi 1993, 1998); disclosure requirements increase resulting in higher stock prices (Cantale 1997; Fuerst 1998); and firm value increases, as measured by Tobin's Q (Doidge et al. 2004). However, previous research provides only weak evidence that foreign issuers cross-list in the United States in order to protect shareholder rights (Reese and Weisbach 2001). Moreover, previous research provides mixed results regarding the effect of cross-listing on dividends, a component of shareholder value. Specifically, Jensen (1986) argues that managers have an incentive to lower dividends to retain resources within the company in order to support higher salaries, investment in risky projects and perquisite consumption. La Porta and Lopez-De Silanes (2000) find that firms operating in countries with higher shareholder protection pay higher dividends than firms in countries with weaker shareholder protection. These theories seem to indicate that dividends are mainly a "benefit" for minority shareholders and a "cost" for management and majority shareholders. In contrast, Faccio et al. (2001) find that ex-ante firm value is lower in countries with weak shareholder protection, and for that reason higher dividends are required to offset the lower firm value. One of the limitations inherent in this stream of research is that, to date, the authors use groups of countries, thereby averaging the differences among individual countries and exposing the results to the risk of a missing, correlated variable at the country level.

Our paper seeks to add to the existing literature by examining cross-listed firms from only one country. This research design allows us to directly examine the effects of cross-listing without the confounding effects of averaging groups of countries with different economic, political, social, corporate governance, and legal environments. In this way we are better able to evaluate the effects of cross-listing and of changes in corporate governance on the firms in our sample, with fewer confounding factors. We chose Italy, specifically, because this country provides an excellent setting in which to examine our research questions. Indeed, as several previous studies have indicated, the domestic Italian shareholder protection environment has been historically weak (La Porta et al. 1998; La Porta et al. 2000; Faccio and Lang 2002). In 1998 the Draghi reform dramatically improved shareholder protection for domestically listed firms (Dyck and Zingales 2004). This unique setting allows us to add to the existing literature by examining the change in cross-listing behavior and corporate policy decisions surrounding this significant legislated corporate governance reform.

Our contribution to the literature is two-fold: first, we evaluate three different effects of cross-listing in the United States by a firm domiciled in a country with a weak corporate governance system without the confounding effects of the differences in the economic, political, social, corporate governance, and legal environments; second, we study the effects of the Italian corporate governance reform on the corporate decisions of listed firms. The results can be helpful to other countries with weak corporate governance systems that are evaluating the possible benefits of legislating corporate governance reform.

Research has shown that civil law countries, in general, have weaker corporate governance systems in the form of lower shareholder protection (La Porta et al. 2000).

Additionally, within the civil law countries, French civil law countries (including Italy) provide even less protection for minority shareholders (Reese and Weisbach 2001) than do other civil law countries. Specifically, previous literature (La Porta et al. 1998) indicates that Italy, before the Draghi reform, was historically characterized by a low level of shareholder protection. Hence, *ex ante 1998*, we argue that one of the incentives for Italian firms with high quality corporate governance to cross-list in the United States is the desire to signal to the market their own "high quality" by bonding to the legal system of a country with stronger shareholder protection laws. To test this hypothesis we look at two indicators - the dividend ratio and cash balance to total assets ratio. Previous literature (Zhang 2005) has adopted both ratios as proxies to measure the level of protection of minority shareholders. The bonding hypothesis predicts that cross-listing firms, because they are bonded to a legal system where the protection of minority shareholders is stronger, can afford to pay lower dividends and maintain higher cash balances than non-cross-listed firms. Our results provide support for this hypothesis. Cross-listed firms in our sample pay lower dividends and maintain higher cash to total assets ratios than do the non-cross-listed firms, confirming that when the domestic corporate governance system is weak, bonding to a stronger corporate governance system allows companies to reduce dividends paid.

However, following the 1998 corporate governance reform, the statistically significant difference in the dividends paid between cross-listed companies and non-cross-listed companies disappears. This result, again, supports the bonding hypothesis: as the improvements in the domestic corporate governance system level the playing field, cross-listed companies can no longer afford to pay lower dividends than do non-cross-listed

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companies. In contrast, the cash to total assets ratio (untabulated results) is still statistically different between cross-listing (higher) and non cross-listing (lower) companies after the 1998 Draghi reform. Overall, we can argue that one of the effects of the corporate governance reform in Italy was to eliminate the incentive for companies to signal their corporate governance quality by bonding to a legal system where shareholders' rights were more strongly protected.

Moreover, we use this unique regulatory change at a country level to test whether cross-listed Italian companies were able to deliver to their shareholders a higher firm value - measured by both Tobin's Q and the annual return on investment[4] - than firms not cross-listing. We measure this effect both *ex ante and ex post 1998*. Contrary to previous literature, our results do not indicate a consistent difference between firm valuations of cross-listed and non-cross-listed firms, nor do we find any difference in firm valuations before and after the Draghi reform. Based on these results, Italian firms neither experience increases in firm value following cross-listing in the United States, nor following the legislated improvement in the local corporate governance system. One likely reason for the differences in our results from other cross-country studies is that we examine cross-listing and corporate governance changes in only one country, with homogeneous country level factors, thus avoiding confounding effects that are difficult to disentangle and omitted correlated variables.

Lastly, we used this unique setting to test whether Italian companies that cross-list in the United States experienced an easier access to capital funds than companies that do not cross-list. In order to test this hypothesis, we examined the increases in the number of outstanding

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[4] We calculate return on investment both with and without dividends with the same results.

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shares before and after the cross-listing event, as well as *ex ante and ex post* the 1998 Draghi reform. Contrary to prior literature, our results indicate that there is no difference in the year over year change in shares outstanding for cross-listed firms versus non-cross-listed firms. There also appears to be no difference in the year over year change in the shares outstanding for firms before the 1998 corporate governance reform and after the reform. These results indicate that companies do not appear to cross-list in the United States in order to gain access to capital investors either before or after the 1998 corporate governance reform. Again, our results may differ from other studies because we examine data from one country, eliminating other country level confounding factors.

Overall, the results of our study indicate that countries with weak corporate governance systems can use legislation to improve shareholder protection and thus reduce the incentives for local firms to cross-list in the United States in order to signal their quality as anticipated by the bonding hypothesis. We find no evidence that Italian firms, cross-listing in the United States, enhance their shareholder value or issue more stock. These results are particularly meaningful to legislators because they indicate that a government can take action to improve domestic corporate governance and thereby reduce the cross-listing incentives for domestic firms. Additionally, firms that are domiciled in countries that introduce a stronger corporate governance system may be able to avoid the costs of cross-listing. We leave it to future research to determine if the costs of cross-listing are exceeded by the costs of compliance with the changes implemented under the Draghi reform.

The remainder of the paper is organized as follows. Section 2 presents a review of the relevant previous literature. Section 3 includes the exposition and argumentation of our

hypotheses. Section 4 describes our sample and data. Section 5 presents our empirical results

and Section 6 summarizes our conclusions and offers suggestions for future research.

2. Review of previous literature

2.1 Separation of ownership and control literature

Berle and Means (1932), and Jensen and Meckling (1976) suggest that the separation

between ownership and control of a company results in agency conflicts between owners

(shareholders) and agents (management). The root of the agency problem is the ability of

management to make decisions that benefit themselves at the cost of shareholders, while

shareholders are not able to completely monitor the actions and performance of management.

Shleifer and Vishny (1986) argue that the presence of large shareholders may offer a partial

solution to the agency problem as large shareholders would have both the motivation and

ability to monitor management, thus enhancing firm efficiency through the reduction of

agency costs.

However, in addition to the positive effect of reduced agency costs, large or dominant

shareholders can also create the negative consequence known as the entrenchment effect;

Dyck and Zingales (2004, 2002), suggest that large shareholders are able to divert corporate

resources from other (minority) shareholders through self dealing (i.e. purchase and sale of

assets are common examples of self-dealing) or tunneling (transferring resources out of the

company) (Johnson et al. 2000). These authors offer evidence that Italy is an excellent

example of a legal environment in which, before the Draghi reform, minority shareholders'

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rights were only weakly protected, resulting in obvious instances of expropriation of minority

shareholders by majority shareholders[5].

Previous research has documented the existence of control chains and pyramid structures[6]

as tools for dominant shareholders to achieve control (voting) rights larger than their

ownership (cash flow) rights[7]. These control rights can be used to dominate a firm to a

greater extent than is justified by direct ownership. Shleifer and Vishny (1986) identify

several methods used by managers and dominant shareholders to expropriate company

resources from minority shareholders: excessive management salaries, perquisite

consumption, extra dividends to certain share classes, self dealing, tunneling, and outright

theft. These types of expropriation by dominant shareholders are possible because in these

companies, either directly or indirectly, the dominant shareholder controls the firm's board of

directors (Dahya et al. 2005). Previous research has repeatedly indicated that in the absence

of strong shareholder protection, management and dominant shareholders each have both the

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[5] Johnson et al. (2000) present an Italian company where the dominant shareholders successfully expropriated wealth from the minority shareholders. Anguissola and Mignani, are minority shareholders of Marcilli, an Italian machinery maker. The controlling shareholder of the company is Sarcem, a Swiss machinery maker, who owns 51% of Marcilli. Sarcem precluded Marcilli from directly exporting its products, charged a very high markup for Marcilli products it sold, and sold Marcilli products under its own trademark, overcharging Marcilli. The court declined to appoint a judicial investigation because Marcilli's president had duty of care to Sarcem, the controlling shareholder. This case illustrates the risks borne by minority shareholders of Italian companies before the Draghi reform.

[6] Pyramid structures are defined as follows. Firm Y is said to be controlled through pyramiding if it has an ultimate owner who controls Y indirectly through another corporation that it does not wholly control. For example, if a family owns 15% of Firm X (which owns 20% of Firm Y), then Firm Y is controlled through a pyramid at the 10% threshold. However, at the 20% threshold, we would say that Firm Y is directly controlled by Firm X (which is widely held at the 20% threshold) and no pyramiding would be recorded. If Firm X holds 100% of Firm Y, then again there is no pyramid. Cross holding structures are defined as follows. Cross holdings: Firm Y is controlled by a cross-holding at the 10% (or 20%) threshold if Firm X holds a stake in Firm Y of at least 10% (or 20%), and Y holds a stake in Firm X of at least 10% (or 20%), or if firm Y directly holds at least 10% (or 20%) of its own stock.

[7] Control rights are measured by voting rights a shareholder can exercise in a shareholders' meeting, while the cash flow rights are equal to the equity share owned by the shareholder.

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motivation and the ability to expropriate wealth from minority shareholders (La Porta et al. 2000; Faccio et al. 2001; Johnson et al. 2000; Claessens et al. 2002).

Faccio (2002) identified a pattern of significant differences between dominant shareholder voting rights and cash flow rights in five Western European countries including Italy (as well as Belgium, Norway, Sweden, and Switzerland). These differences signify an increased risk of loss-of-value to minority shareholders.

2.2 Dividend Policy literature

Existing literature (Faccio et al. 2001; La Porta and Lopez-De-Silanes 2000; Jensen 1986) offers mixed results regarding the effect of the excess control of large dominant shareholders over dividend policies. In general there are two views: the country-level view and the firm-level view.

At a country level, Jensen (1986) argues that managers may use lower dividend payments to retain resources that can be employed for perquisite consumption, excess salaries, or projects that benefit managers or increase private benefit of control for dominant shareholders at the expense of the other shareholders. Higher dividend payments, indeed, force firms to raise the funds they need from capital markets, who then may become a monitoring mechanism over managers and controlling shareholders. Dominant owners with higher control (voting) rights than cash flow (ownership) rights have an interest in paying lower dividends, since they receive only a small fraction of the paid dividends. Similarly, at a country level, La Porta and Lopez-De-Silanes (2000) provide evidence that firms in countries with stronger shareholder protection pay higher dividends.

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At a firm level, the bonding hypothesis suggests that investors discount *ex ante* the value of the firm due to agency concerns and the resulting higher risk to minority shareholders. Companies, however, can counter these concerns by bonding themselves to a stronger shareholder environment and thereby reducing the agency costs anticipated by minority shareholders. In this way, if agency costs between controlling and minority shareholders are reduced by cross-listing in the United States, a cross-listed company can lower its dividend payments. Faccio et al. (2001) offer both theory and empirical evidence regarding the bonding hypothesis and its effect on firms' dividend policy. Specifically, they find a positive association between the excess control held by the dominant shareholders and dividend payment. These authors argue that investors associate dominant shareholders with higher agency costs and therefore discount the value of the firm *ex ante*. To make up for this perceived lower firm value, companies distribute higher dividends, as a bonding device.

We expect the firm level results to be relevant to our study as all of our firms are from one country, Italy, thus eliminating the country-level effects that were present in other studies.

2.3 Cross-listing literature

In the last ten years the number of companies that cross-list their shares in the United States market has increased tenfold[8], with a peak in 1996 and a downturn at the beginning of this decade coinciding with regulatory changes[9] that have made listing in the US less attractive (Zhu et al. 2007). Finance, accounting, and legal literature provide different

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[8] Non-U.S. companies listing or issuing their shares on the United States market through the American Depository Receipts (ADR) program went from 158 in the early '90 to 2172 at July 2007 (data from Bank of New York ADR website: www. adrbny.com).

[9] US Congress enacted the Sarbanes-Oxley Act on July 30, 2002 (Pub. L. No. 107-204, 116 Stat. 745).

explanations and suggest different relevant factors for the development of the cross-listing activity.

Biddle and Saudagaran (1991) identify both the costs and benefits of listing on a foreign stock exchange. They identify several financial benefits to cross-listing including: a reduction in the firm's cost of capital, lower transaction costs, lower systematic risk, and lower required rate of return by investors. Moreover, companies listing on a foreign stock exchange gain marketing, public relations, and political benefits. The costs include the accounting and regulatory costs of foreign listing, specifically: compliance with foreign accounting reporting requirements (in the United States, generally accepted accounting principles or GAAP), modification of auditing procedures, changing the frequency of financial reporting, increasing financial disclosure[10], and the upfront costs of the initial registration.

The market segmentation hypothesis emphasizes that world markets are separated by cultural, financial, legal, language, and fiscal barriers. Capital market integration theories (Alexander et al. 1987) argue that removing those barriers would help to share the risk among investors, thereby reducing the expected returns demanded by investors and the transaction costs, while increasing the stock prices. Non-United States companies can remove these investment barriers by cross-listing on a United States exchange. Indeed, empirical research has found a significant decrease in the cost of capital for cross-listing companies (Errunza and Miller 2000).

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[10] Licht (2003) notes that in the United States, current reporting rules require that companies disclose potentially sensitive information such as remuneration, related party transaction, stock-option data, and names of shareholders with more than 5% of the issuer's voting securities. These rules can reduce managers' control and financial and non-financial benefits.

Some other researchers suggest increased liquidity as another explanation for the decision to cross-list. The United States market is more liquid, and thus can alleviate capital constraints that may exist in a domestic market thereby making capital available to firms at a lower cost. In a single-country study, Davis-Friday (2005) provides evidence that Mexican companies cross-listed in the United States in order to overcome the capital constraints that existed in Mexico following the devaluation of that currency in 1995.

Another stream of research in the law and finance disciplines, defines the bonding hypothesis as a motivation for cross-listing in order to signal the "quality" of a firm. Where the legal protection of minority shareholders is weak, it is more difficult for companies to raise external capital (La Porta et al. 1997). To alleviate this problem, firms that desire external capital can bond themselves to a higher investor protection system by cross-listing their shares in the United States, because of mandatory high quality disclosure requirements, SEC enforcement actions, and shareholder litigation law, all of which make expropriation of minority shareholders by dominant shareholders and/or by management more difficult (Coffee 1999). Empirical research has consistently supported the bonding hypothesis. Doidge et al. (2004) provide evidence that at the end of 1997, foreign companies with shares cross-listed on major United States exchanges have Tobin's Q ratios significantly higher than companies that do not cross-list. These authors suggest that cross-listing in the United States reduces the opportunities for dominant shareholders and management to expropriate private benefits, thereby enhancing the value of the firm. This effect is more pronounced for firms that are based in countries with weaker investor protection laws.

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Within this line of research, analytical models consider the decision to cross-list as both a signal from dominant shareholders and managers of private information about their firm's "quality" to outside investors, and as an action designed to bond the firm to a higher quality disclosure environment.

Pagano, Roell, and Zechner (2002) examine the motivation of European companies' to cross-list, relating the cross-listing decision to the characteristics of the destination exchanges (and countries) relative to those of the home exchange (and country). They find that European companies appear more likely to cross-list in more liquid or larger markets, and in markets in which several companies from their industry already cross-list. They also find a higher likelihood of cross-listing in countries with stronger investor protection, and more efficient courts and bureaucracy, but not with more stringent accounting standards. Moreover, they suggest that a United States listing is a natural choice for high-growth and high-tech companies, while European exchanges are chosen by companies with a strong historical record of profitability.

Previous research has provided only weak evidence of equity increases following cross-listings when examining groups of foreign companies (Reese and Weisbach 2001).

2.4 Country Background

Italy has historically had one of the weakest shareholder legal protection environments among the world's industrialized countries. In the well known study by La Porta et al. (1998), Italy emerged with an antidirector rights score equal to 1 (in a scale from 1 to 6). In 1998 Italy went through a radical corporate governance reform, also known as the Draghi reform.

Among new regulations, this reform made it easier for minority shareholders to sue the company's management[11]. Furthermore, to reduce the asymmetry between cash flow and voting rights, this reform made it mandatory for anyone who acquires 30% or more of the voting shares of a listed company to bid for 100% of the shares. Before the reform, shareholders representing at least 20% of the equity issued could ask for a shareholders meeting; after the reform, the threshold was lowered to 10% (or less, if the by-laws state a lower amount). The same percentages are required for shareholders' proposals at the meeting. Overall, this reform significantly improved the corporate governance of Italian firms specifically related to minority shareholder rights and protections.

One of the expected consequences of this reform was to limit the ability of dominant shareholders to extract private benefits from the company. Despite the effort to avoid the new rules whenever possible [12], there is evidence that the 1998 Draghi reform was able to deliver the desired results: Dyck and Zingales (2004) found that before 1998 the average value of private benefits[13] of control for dominant shareholders in listed Italian companies was 47 percent, while after 1998 it was reduced to a mere 6 percent.

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[11] Until 1998, individual and minority shareholders were not allowed to sue the directors for damages suffered by the company. After the reform, a minority representing at least 5% of the total issued equity in a listed company can start a derivative suit against the company's directors.

[12] In Pirelli Spa, the controlling stake was reduced from 50 percent to around 30 percent. In the disperse ownership cases of Olivetti and SNIA-BPD, coalitions of shareholders worked together to create controlling stakes just below 30 percent. (Bianchi et al. 1998)

[13] They use the Barclay and Holderness (1989) method to infer the value of private benefits of control for 39 countries. When a control block exchanges hands, they measure the difference between the price paid by the acquirer and the price quoted on the market the day after the sale's announcement. This difference is called control premium and is used to measure the private benefits of controlling the company.

3. **Hypotheses development**

Our basic research question examines which, if any, of the following motivations for Italian firms to cross-list in the United States are supported by the data: bonding a weak shareholder protection environment to a stronger legal protection environment, the desire to increase shareholder value, or the desire to more easily access equity capital.

Previous literature clearly identifies the United States legal environment as one that provides strong legal protection to minority shareholders. For this reason, we consider the decision to cross-list in the United States as a proxy for the decision to bond a company to a stronger shareholder protection environment. Moreover, researchers arguing in favor of the bonding hypothesis, provided evidence that dividends paid, at the firm-level, are lower after cross-listing (Faccio et al. 2001). In this paper we analyze data at the firm-level, within the same country, and therefore expect the effects of cross-listing on a company's dividend policy to conform to the bonding hypothesis. In the same way, previous literature provides evidence that firm-level cash holdings are negatively correlated with the degree of legal protection of minority shareholders (Dittmar et al. 2003), and thus are also correlated with the firm's cross-listing decisions. This literature leads us to Hypothesis 1a:

H1a: (alternative form) Bonding to a stronger shareholder protection environment (cross-listing in the United States) results in lower dividends paid to investors and a higher cash balance to total assets ratio.

Since the enactment of the Draghi reform in 1998, the corporate governance system, specifically, the legal protection of minority shareholders rights, in Italy has improved (Dyck and Zingales 2004). Hence, as previous literature suggests (Jensen 1986; Zhang 2005; La Porta and Lopez-De-Silanes 2000), we would expect an increase in dividend payments to investors and a lower level of cash holdings after 1998, *ceteris paribus*. Hypothesis 1b is as follows:

H1b: (alternate form) Following the Draghi reform, all companies in the sample will pay higher dividends to investors and have a lower cash balance to total assets ratio due to the improved domestic shareholder protection setting in Italy.

We also test the combined effect of the decision to cross-list in the United States and the Draghi reform on the dividend policy and cash balances of Italian companies in order to determine if the benefits offered by bonding is greater than (or less than) the corporate governance improvement in Italy subsequent to the 1998 Draghi reform. Hypothesis 1c is as follows:

H1c: (alternate form) Bonding to a stronger shareholder protection environment (cross-listing in the United States) after the Draghi Reform results in higher/lower dividends paid to investors and higher/lower cash balance to total assets ratios for both cross-listed and non-cross-listed firms.

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Additionally, based on results provided by extant literature (La Porta et al. 2002; Doidge et al. 2004), we expect the market value of the company, measured by Tobin's Q and returns to investors (excluding dividends), to be higher for cross-listed companies. Tobin's Q measures the market value per dollar of replacement costs of tangible assets, while the return to investors measures the annual increase in the market price of a company's shares (excluding dividends). Assuming rational and efficient financial markets, stock prices incorporate all positive and negative news about the company's expected future cash flows, including the decision to cross-list. We state these Hypotheses in 2a, b and c:

H2a: (alternate form) Bonding to a stronger shareholder protection environment (cross-listing in the United States) results in higher firm market value as measured by returns to investors and Tobin's Q.

H2b: (alternate form) Following the Draghi reform all companies in the sample experience higher firm market value as measured by returns to investors and Tobin's Q.

H2c: (alternate form) Bonding to a stronger shareholder protection environment (cross-listing in the United States) after the Draghi Reform result in increased firm market value as measured by returns to investors and Tobin's Q for cross-listed firms as compared to non-cross-listed firms.

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Another motivation for cross-listing in the United States is easier access to capital funding. Previous research indicates that separate from the above motivations for cross-listing, firms that cross-list subsequently increase equity issues, regardless of the shareholder protection environment (Reese and Weisbach 2001). Based on these results, we expect cross-listed firms to show a greater year over year increase in the number of shares outstanding than do non-cross-listed firms. We further expect that the relation will continue following the Draghi reform. We will additionally test if the respective increase in shares outstanding is different between cross-listed and non-cross-listed firms after the Draghi reform although previous research does not offer us directional guidance for this hypothesis. We test these Hypotheses in 3a, 3b and 3c below:

H3a: (alternate form) Bonding to a stronger shareholder protection environment (cross-listing in the United States) results in increases in the year over year shares outstanding (as compared to non-cross-listed firms).

H3b: (alternate form) Following the Draghi reform, all firms in the sample increase/decrease year over year the number of shares outstanding.

H3c: (alternate form) Bonding to a stronger shareholder protection environment (cross-listing in the United States) after the Draghi Reform increases/decreases year over year the number of shares outstanding.

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4. **Sample Selection and Data**

4.1 Sample selection

We gathered financial and accounting data from the Global Vantage (Compustat) database and ADR data from Citibank American Depository Receipt Services[14], Bank of New York ADR website[15] and JP Morgan ADR website[16]. As of October, 2006, 46 Italian ADRs were listed on the Citibank American Depository Receipt Services website. Table 1 lists all of the Italian firms cross-listed in the United States. It is important to note that while Table 1 lists different classes of shares of the same company as different ADRs programs (i.e., FIAT S.P.A. cross-lists 3 different ADR programs),[17] to avoid the violation of the assumptions of the OLS regression model, the sample used to estimate our OLS regressions includes only one ADR program for each company-year.

[Insert Table 1 about here]

Table 2 lists the capital raising events for all of the Italian firms cross-listed in the United States.

[Insert Table 2 about here]

For our sample period, 1993 to 2005, we include all ADRs for which data are available on Global Vantage (Global Issue and Global Commercial/Industrial). Our dataset includes a total of 2,365 firm-year observations.

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[14] http://wwss.citissb.com/adr/scripts/uig/pgm_s.asp
[15] http://www.adrbny.com
[16] http:// www.adr.com
[17] Each class of share assigns to the shareholder different voting and cash flow rights (similarly to class A and B shares in the U.S.).

To test our first group of hypotheses, we use the ratio of total dividend payments to total assets at the beginning of the period to quantify a firm's dividend policy (Zhang 2005). We also examine each firm's cash holding policy as a dependent variable proxied by the log of the cash ratio, measured as the sum of cash and cash equivalents divided by net assets.[18]

In our second group of hypotheses, we analyze the effect of cross-listing on firm value and firm performance. As a proxy for firm value we use the simplified version of Tobin's Q originally developed by Kaplan and Zingales (1997)[19]. To minimize the effects of outliers in the regression analysis, we perform the same analyses winsorizing all of the financial variables at 1% and 99%. Our (untabulated) results are consistent both with and without winsorizing our variables.

Finally, in order to make shares and stock prices directly comparable through time[20], we use Cumulative Adjustment Factors (CAF) from Wharton Research Data Services (WRDS). We calculate adjusted stock price and adjusted shares outstanding by multiplying numbers from the Global Vantage Global Issue database with the CAF provided by WRDS. We then calculate the value of returns to investors (with and without dividends), market value, and Tobin's Q based on those adjusted observation. Results (untabulated) of the additional analyses are the same as the unadjusted values.

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[18] Net assets is computed as the difference between total assets and cash plus cash equivalents.
[19] Tobin's Q is defined as a firm's market value per dollar of replacement costs of tangible assets. The higher a firm's Tobin's Q, the higher the market value of each dollar of replacement cost of tangible assets (or, more simply, each dollar of total assets). The original Tobin's Q model is calculated as the ratio: "market value of the firm" over "the reproduction cost of its assets." There are some papers that use a more simplified procedure in which Tobin's Q is equal to the market value of assets divided by the book value of total assets. Market value of assets is calculated as the book value of assets plus the market value of common stock (total shares outstanding multiplied by the price per share outstanding) less the sum of book value of common equity.
[20] In this way we adjust for stock splits and other events that affect the firm's capital structure.

4.2 Descriptive statistics

Table 3 presents summary statistics for all of the accounting and financial variables for our complete sample, and separately for companies with cross-listings in the United States and for those companies without cross-listings. Results indicate that cross-listed companies compared with non-cross-listed companies have, on average, higher sales volume (12.8 vs. 2.2 billion euro), net income (145.0 vs. 60.4 million euro), current assets (9.7 vs. 1.7 billion euro), goodwill (1.9 vs. 0.3 billion euro), retained earnings (258.0 vs. 85.0 million euro), and market value (5.0 vs. 1.2 billion euro). However, cross-listed companies are characterized by a lower growth rate (0.12 vs. 0.47), Tobin's Q value (1.22 vs. 1.52), and dividend ratio (0.0052 vs. 0.0081). No correlation or collinearity problems were identified.

[Insert Tables 3 and 4 about here]

4.3 Research Design

We use several statistical analyses to test our hypotheses. First, we perform two simple univariate analyses to test if the means and medians of the dependent variables for the complete sample (1) before and (2) after the 1998 reform and for companies (1) that were cross-listed and (2) those that were not cross-listed are significantly different. Second, we run OLS regressions to test the hypotheses, controlling for other variables that previous literature has found relevant in explaining the cross-listing decisions. Previous literature, for instance, identifies one of the possible reasons to cross-list in a more liquid market is a need to access

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financial capital (Pagano et al. 2002). For this reason, in our model we control for companies with high growth opportunities by including the *Growth* independent variable in our models[21].

4.3.1 Dependent Variables

The dependent variables in the model are the dividend ratio, cash holdings ratio, leverage, returns to investors with and without dividends, Tobin's Q, and the year over year increase in the number of shares outstanding.

We define the dividend ratio as the ratio of total dividend payments divided by total assets. We calculate the cash holding ratio as the sum of cash and cash equivalents divided by net assets. Net assets are computed as the total assets less cash and cash equivalents. Leverage is the ratio of total liabilities to total assets.

We compute the actual return to investors with dividends as:

$$\mathrm{Re\,t}_t = \frac{P_t - P_{t-1} + Div_t}{P_{t-1}} \tag{1}$$

where Ret$_t$ is the return to investors at time t, P_t is the price of the stock at time t, and Div_t is the dividend per share at time t. Returns without dividends are calculated as:

$$\mathrm{Re\,t}_t = \left(\frac{P_t}{P_{t-1}} - 1 \right) \tag{2}$$

We compute the Tobin's Q as the ratio of the sum of total book value of debt plus the market value of equity over the total book value of assets. Finally, we calculate the year over

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[21] The growth ratio is calculated as the increase in sales between year t-1 and t, divided by total sales for year t-1.

year increase in shares outstanding as the difference between shares outstanding in year t and in year t-1, adjusting the value to take into account stock splits and other events that affect the firm's capital structure.

5. **Empirical results**

Our univariate results from examining the dependent variables before and after the 1998 corporate governance reform show that, on average, the dividend ratio is statistically higher before the reform, while the value of the Tobin's Q is statistically lower. The return to investors without dividends is, is not statistically significantly different before the reform versus after the reform.

Our univariate results from examining the dependent variables for firms that cross-listed in the United States versus firms that did not cross-list shows that companies that cross-list are characterized, on average, by a lower dividend ratio. There is no significant difference in the returns without dividends and Tobin's Q between the two groups.

[Insert Table 5 about here]

Our multivariate regressions allow us to test our hypotheses while controlling for certain variables that previous research has found relevant in explaining the decision to cross-list in the United States. We use the following model to test our hypotheses (firm and time subscripts are omitted for simplicity):

$$Dependent = \alpha + \beta_0 NetIncEU + \beta_1 Growth + \beta_2 After98 + \beta_3 CaEU + \beta_4 GoodEU +$$
$$\beta_5 \text{Re}tEarEU + \beta_6 MktVal + \beta_7 TobinQ + \beta_8 CrossListUS + \beta_9 CrossListUS * After98 \quad (3)$$

where the dependent variable (defined at Table 6) *Dependent* varies for different models. *Dependent* is equal to *Divratio* in model (1), *LogCashRatio* in model (2), *Leverage* in model (3), *TobinQ* in model (4), *Retwithout* in model (5), *MktVal* in model (6), and *Diffshare* in model (7). *Divratio* is dividend ratio, calculated as the ratio of total dividend payments to total assets. *LogCashRatio* is the log of the ratio of total cash to total assets minus cash. *Leverage* is calculated as total liabilities divided by total assets. *TobinQ* is equal to the market value of assets divided by the book value of total assets, where market value of assets is calculated as the book value of assets plus the market value of common stock (total shares outstanding multiplied by the value of shares outstanding) less the sum of the book value of common equity. Untabulated results show qualitatively similar results for the value of *TobinQ* where the variable was not winsorized. *RetWithout* is the returns to investors without dividends (computed as *Retwithout*=(P_t/P_{t-1})-1). Untabulated results show qualitatively similar results if we adopt returns to investors including dividends. *MktVal* is equal to the total shares outstanding times the price of a share on the market at the end of the year (in euro). *Diffshare* is the difference in the number of shares outstanding between year t and year t-1 for company i. *NetIncEU* is net income in euro. *Growth* is calculated as the increase in sales between year t-1 and t, divided by total sales for year t-1. *CrossListUS* is a indicator variable equal to 1 if the shares of the company are listed on a United States stock exchange, 0 otherwise. *CaEU* is current assets in euro. *GoodEU* is goodwill in euro. *RetEarEU* is retained earnings in euro.

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We test Hypothesis 1 with the first and the second models, Hypothesis 2 with the fourth and fifth model, and Hypothesis 3 with the sixth and the seventh model. Model 3 helps to clarify if the reform and/or the cross-listing on the United States market are associated with a change in the company financing policies, and an increase in the importance of equity financing over debt financing, or vice-versa.

In Model 1, the dependent variable is the company's dividend ratio (results in Table 6 Column 1) and we expect to find a negative coefficient, β_8, for the *CrossListUS* indicator variable and a positive coefficient, β_2, for the *After98* indicator variable, confirming the bonding hypothesis described above. We do not have an expectation for the sign of the coefficient of the interaction variable, β_9, since the sign depends on which of the two effects, the cross-listing or the reform effect, is dominant. Our results show that there is a significant and negative coefficient estimate for β_9 (-0.006, t value of 2.80), while β_2 is not statistically different from zero. In accordance with the bonding hypothesis, our results indicate that companies reduce their dividends paid to shareholders after the cross-listing event, but they do not change their dividend policy after the 1998 reform.

[Insert Table 6 about here]

Model 2 tests if the company's cash policy is affected by either the cross-listing of shares on the United States market or by the corporate governance reform. We expect results consistent with the bonding hypothesis explained above: a positive coefficient estimate for the *CrossListUS* indicator variable (β_8) and a negative coefficient for the *After98* indicator variable (β_2). Under the bonding hypothesis, companies bonded to a stronger shareholder

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legal environment can distribute lower dividends without concern that investors will discount their firm's value on the market due to agency conflicts between majority and minority shareholders. Model 2 results (Table 6, Column 2) show that both of the coefficients of interest are statistically significant and have the expected signs, thereby providing evidence in support of the bonding hypothesis. In both Model 1 and Model 2 estimates for the interaction term (β_9) is not statistically different from zero, indicating that after the 1998 reform there is no significant incremental difference in dividends paid or cash holding policies between companies cross-listed in the United States and the rest of the companies in the sample. As a result, the cash to total assets ratio of cross-listed firms remains higher than that of non-cross-listed firms even after the 1998 Draghi reform (untabulated results).

Overall the results for Hypotheses 1a, 1b and 1c indicate that companies that cross-list their shares in the United States have significantly lower dividends and higher cash holdings than non-cross-listing companies. These results are consistent for the whole sample and whether we restrict the sample to either pre-1998 data or to post-1998 data.

Hypothesis 2 (Models 4 and 5) tests the market reaction (measured with returns to investors and with Tobin's Q) to both the 1998 reform and to cross-listing by the company on the United States market. We expect a positive reaction from the market to both of these events, resulting in higher share prices and higher returns to investors and higher Tobin's Q values for firms that cross-list in the United States and for all firms following the 1998 corporate governance reform.

However, results for Hypotheses 2a, 2b and 2c (Table 6, Columns 4 and 5) indicate that from the market's point of view, there is no statistical evidence that cross-listing in the United

States results in higher firm value. The only statistically significant coefficient estimate for these models is a positive value (0.286, t value of 8.25) for β_2 in Model 4 indicating that Italian companies, on average, experienced an increase in their Tobin's Q values after the 1998 Draghi reform. Contrary to previous research, (Doidge et al. 2004), our results do not show an increase a firm's Tobin's Q value after cross-listing in the United States (coefficient β_8 is not statistically different from zero). Our results may be different from prior studies because the number of Italian companies who cross-list in the United States has increased over time during the period used in our sample, and ignoring the effect of the Draghi reform on a company's Tobin's Q value might lead to the conclusion that the increase in Tobin's Q is due to the cross-listing decision. Additionally, as mentioned earlier, other studies in this area have included companies from many countries and failing to control for fundamental institutional changes could lead to different results.

Hypotheses 3a, 3b and 3c, test another possible explanation for the decision to cross-list in the United States. Specifically, we examine whether Italian companies decide to cross-list because they are looking to raise equity capital and they need a capital market more liquid than their domestic market. We estimate Model (6) to evaluate whether companies increase their market value and Model (7) to evaluate whether companies increase the number of shares outstanding following the Draghi reform and/or the cross-listing events. Our results presented in Table 6, Columns 6 and 7 provide evidence that companies in the sample decrease the number of shares outstanding after the 1998 Draghi reform (the coefficient β_2 estimate for Model (7) is equal to –40.129, t value of 1.94), while the data show no changes either in the market value or in the number of shares outstanding before/after the cross-listing.

Overall, these results indicate that Italian firms are not increasing their shares outstanding as would be expected if companies cross-list in order to gain access to a more liquid capital market.

Lastly, our results for Model (3), where the dependent variable is the leverage ratio of the company, confirm that there is no change in the source of company financing associated with the two events considered in the paper (indeed, the estimates of the coefficients of interest, β_2 and β_8, are not statistically different from zero). Companies do not switch from debt financing to equity financing, or vice-versa, after either a cross-listing event or the 1998 Draghi reform.

Results for Model (3), together with evidence in support of Hypothesis 3, show that Italian companies in the sample do not cross-list in the United States market to raise equity capital; indeed, (i) the number of shares outstanding, (ii) the market value calculated as the number of shares outstanding times the price on the market, (iii) and the ratio of total liabilities to total assets do not change, on average, after the cross-listing.

Our overall results show that once we take into consideration the institutional reform introduced in 1998, there is no evidence of an increase in the company's market value or in the value delivered to investors, nor is there evidence that companies, on average, cross-list their shares in the United States market to raise more capital. However, our results do confirm the bonding hypothesis as the explanation for cross-listing a firm's shares in the capital market of a country characterized by higher shareholder protection in order to show investors the company's commitment to voluntarily enforce policies more favorable to the interests of minority shareholders.

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5.1 Further Analyses

In conclusion, we provide two additional empirical results that help to corroborate our findings. First, we evaluated whether the 1998 Draghi reform makes a difference in the decision to cross-list Italian firm's shares on the US market. For this analysis, we compare the number and the value of shares of Italian companies exchanged in the US market from 1991 to 2005 with the number and value of shares exchanged on the US market for companies from other Western Europe countries.

[Insert Graph 1 about here]

Graph 1 shows (a) the *number* of shares and (b) the *value* (in U.S. dollars) of the total annual trade in Italian ADRs. It is apparent that there was a dramatic drop in (a) the *number* of shares traded after 1998, while (b) the *value* of shares traded shows a decline starting before 1998.[22] We compare the number and the value of shares of Italian companies traded in the United States with the total number and the total value of traded shares of Western European companies, to test if the significant drop highlighted in Graph 1 is common to all Western European countries or if it only occurred for Italian companies.

We estimate the model:

$$Vol_t = \alpha + \beta_0 Value_t + \beta_1 After98 + \beta_2 Value_t * After98 \text{ , and} \tag{4}$$

$$Val_t = \alpha + \beta_0 Volume_t + \beta_1 After98 + \beta_2 Volume_t * After98 \tag{4b}$$

for both Italian and Western European companies. If the 1998 Draghi reform signals a turning point in the historic trends for both the number of ADRs traded in the United States market and their value, then we would expect a negative and significant coefficient β_2 for the

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[22] Source: Citigroup Depositary Receipt Services (http://wwss.citissb.com/adr/scripts/uig/pgm_s.asp).

regression including Italian companies, but not for the regression including Western European companies.

[Insert Table 7 about here]

Our results included in Table 7 show that 1998 is a turning point in the annual data trend for both the number and the value of shares of Italian companies traded on United States Exchanges. As expected, the interaction coefficient (β_2) is, indeed, negative and significant for the Italian market data, while the coefficient is not statistically different from zero for the Western European market data.

Based on the above results, we cannot infer a cause-effect relation between the 1998 Draghi reform and the decline in the number and value of Italian ADRs listed on United States stock exchanges. However, the results conform to the story that our previous data indicate: Italian companies cross-listed ADRs in the United States market not to raise equity capital, not to deliver higher value to investors or to increase the market value of the company, but to signal their quality to the market and to bond themselves to a higher shareholder legal protection environment. Since after the 1998 Draghi reform the quality signaling incentive no longer exists, because the domestic market offers a higher protection for the minority shareholders, the decision to cross-list ADRs in the United States market is less frequent.

[Insert Table 8 about here]

Second, we compare the number of ADR programs that went active/inactive in the period 1998 through 2002 vs. 2002 through 2007 for Italian and Western European companies. In July 2002 the United States Congress enacted the Sarbanes-Oxley Act (SOX), which, overall, increased the costs of compliance with United States regulations for both United States and foreign companies listed on United States stock exchanges. Because of SOX, previous literature found evidence that after 2002 the number of foreign companies seeking to cross-list their shares in the United States market decreased (Zhu et al. 2007). However, if, as we argue in this study, the 1998 Draghi Reform constituted a turning point in the incentives for Italian companies to cross-list, then we would expect a decrease in the number of Italian companies cross-listing starting in 1998, and not in 2002 as for the rest of the sample. Indeed, as Table 7 shows, we found a 2.6% increase in the number of new Western European ADR programs that started between 1998 and 2002, while during the same period Italian ADR programs decreased by 11.8% (going from 34 to 30). Conversely, for the period 2002 – 2007, the number of Western European ADR programs decreased by 20.4%, while the number of Italian ADR programs stayed constant.[23] Again, without providing a cause-effect relation, these results are consistent with the other evidence presented in the paper that Italian companies cross-list more for quality signaling reasons than for economic or capital raising motivations.

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[23] Nine new Italian ADR program started between 2002 and 2007, while six went inactive. However, in August 2007, the FIAT Group announced its intention to delist its three ADR programs from the NYSE, effective 90 days from the communication to the SEC (http://www.reuters.com/article/tnBasicIndustries-SP/idUSN0334245020070803), reducing the number of new active ADR programs for the period to six.

6. **Conclusions and future research**

Overall, our results indicate that when shareholder protection is low, cross-listing in the United States can serve, and it is effectively used by Italian companies, to bond to a higher shareholder protection environment. Moreover, Italian cross-listed companies (i) decrease the amount paid in dividends after the cross-listing, and (ii) increase the cash holding ratio, confirming the bonding hypothesis. However, when a country institutes a corporate governance reform that improves minority shareholder protection domestically, this bonding motivation to cross-list no longer exists or is greatly reduced. These results suggest a public policy implication that domestic market or government corporate governance reforms can be used to reduce companies' incentives to cross-list. We further find that, contrary to prior research, increasing shareholder value and accessing capital are not significant motivators in the decision of Italian firms to cross-list in the United States either before or after the 1998 corporate governance reform.

6.1 Strengths and Limitations

This study contributes to the stream of research analyzing the consequences of cross-listing in the United States market. A key assumption of the paper is that the United States legal environment better guarantees minority shareholders' rights than does the Italian legal system. Previous literature provides strong evidence supporting this assumption, as highlighted in the theory section above.

We acknowledge there are certain limitations in this study. One limitation is that the small sample may not provide enough scope to detect differences in actual returns to investors

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for the two groups of firms (firms that did or did not cross-list in the United States). This limitation, however, would make it less likely to find statistically significant differences in our results.

6.2 Implications

The results of the paper may help firms to better understand the benefits and limitations of cross-listing and bonding to an environment offering higher shareholder protection. The focus of the paper, indeed, is on the benefits related to the reduction of the agency costs associated with the asymmetry between ownership rights and cash flow rights. Presently, firms know how to compute the costs associated with cross-listing, but they are less able to quantify and identify the benefits provided by cross-listing, other than the possibility of accessing a more liquid capital market. This paper also provides governments with some evidence that improving corporate governance domestically may prevent companies from cross-listing their shares in countries with stronger corporate governance environments.

6.3 Future Research

It would be interesting to extend the current study to other countries (country by country and across multiple countries) to verify whether the different legal environments and different corporate governance systems are significant factors in the cross-listing decision, as previous theory suggests. Furthermore, it would also be interesting to analyze and isolate the likely different motivations between companies that decide to list their shares on a United States organized exchange (NYSE, American Stock Exchange, NASDAQ) – level II and III ADR, -

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versus companies that decide to expand into the US capital market without registering with the SEC – level I ADR - whose shares are traded by Institutional investors in the OTC Bulletin Board or Pink Sheet trading system.

List of References

Alexander, G., C. Eun, and S. Janakiramanan. 1987. Asset pricing and Dual Listing on Foreign Capital Markets: A Note. *Journal of Finance* 42:151-158.

Berle, A. A., and G. C. Means. 1932. *The Modern Corporation and Private Property*. New Brunswick (USA) and London (UK): Transaction Publisher.

Bianchi, M., M. Bianco, and L. Enriquez. 1998. Pyramidal Groups and the Separation between Ownership and Control in Italy: Available at SSRN: http://ssrn.com/abstract=293882 or DOI: 10.2139/ssrn.293882.

Biddle, G. C., and S. M. Saudagaran. 1991. Foreign Stock Listings: Benefits, Costs, and the Accounting Policy Dilemma. *Accounting Horizons* 5 (3):69-80.

Cantale, S. 1997. The Choice of a Foreign Market as a Signal. *Unpublished Manuscript*.

Claessens, S., S. Djankov, J. P. H. Fan, and L. H. P. Lang. 2002. Disentangling the Incentive and Entrenchment Effects of Large Shareholdings. *Journal of Finance* 57 (6):2741-2771.

Coffee, J. 1999. The future as history: the prospect for global convergence in corporate governance and its implications. *Northwestern University Law Review* 93:641-708.

Dahya, J., O. Dimitrov, and J. McConnell. 2005. Dominant Shareholders and Allied Directors: A Simple Model and Evidence from 22 Countries: ECGI - Finance Working Paper No. 99/2005 Available at SSRN: http://ssrn.com/abstract=805544.

Davis-Friday, P., T. J. Frecka, and J. M. Riviera. 2005. The financial performance, capital constraints and financial reporting environment of cross listed firms: Evidence from Mexico. *The International Journal of Accounting* 40:1-30.

Dittmar, A., J. Mahrt-Smith, and H. Servaes. 2003. International corporate governance and corporate cash holdings. *Journal of Financial and Quantitative Analysis* 38:111-133.

Doidge, C., G. A. Karolyi, and R. M. Stulz. 2004. Why are foreign firms listed in the U.S. worth more? . *Journal of Financial Economics* 71:205-238.

Domowitz, I., J. Glen, and A. Madhavan. 1998. International Cross-Listing, and Order-flow Migration: Evidence from Mexico. *Journal of Finance* 53:2001-2028.

Dyck, A., and L. Zingales. 2002. The Corporate Governance Role of the Media: NBER Working Paper No. 9309.

———. 2004. Private Benefits of Control: An International Comparison. *Journal of Finance* 59 (2):537-600.

Errunza, V. R., and D. P. Miller. 2000. Market Segmentation and the Cost of Capital in International Equity Markets. *Journal of Financial and Quantitative Analysis* 35:577-600.

Faccio, M., and L. H. P. Lang. 2002. The ultimate ownership of Western European corporations. *Journal of Financial Economics* 65 (3):365-395.

Faccio, M., L. H. P. Lang, and L. Young. 2001. Dividends and Expropriation. *American Economic Review* 91 (1):54-78.

Foerster, S. R., and A. Karolyi. 1993. International Listing of Stocks: The Case of Canada and the U.S. *Journal of International Business Studies* 24:763-784.

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———. 1998. Multimarket Trading and Liquidity: A Transactions Data Analysis of Canada-U.S. Interlistings. *Journal of International Financial MArkets, Institutions and Money* 8:393-412.

Fuerst, O. 1998. A Theoretical Analysis of the Investor Protection Regulations Argument for Global Listing of Stocks. *Working Paper*

Jensen, M. C. 1986. Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers. *American Economic Review* 76 (2):323.

Jensen, M. C., and W. H. Meckling. 1976. Theory of the firm: managerial behavior, agency costs and ownership structure. *Journal of Financial Economics* 3 (4):305-360.

Johnson, S., R. La Porta, F. Lopez-de-Silanes, and A. Shleifer. 2000. Tunnelling. *American Economic Review* 90:22-27.

Kaplan, S. N., and L. Zingales. 1997. Do Investment-Cash Flow Sensitivities Provide Useful Measures of Financing Constraints? *Quarterly Journal of Economics* 112 (1):169-215.

Karolyi, A. 2005. The World of Cross-Listing and the Cross-Listing of the World: Challenging conventional Wisdom. In *Working Paper*. Columbus, OH: Ohio State University.

La Porta, R., and F. Lopez-De-Silanes. 2000. Agency problems and dividend policies around the world. *Journal of Finance* 55 (1):1.

La Porta, R., F. Lopez-De-Silanes, A. Shleifer, and R. Vishny. 1997. Legal Determinants of External Finance. *Journal of Finance* 52:1131-1150.

La Porta, R., F. Lopez-de-Silanes, A. Shleifer, and R. Vishny. 2000. Investor protection and corporate governance. *Journal of Financial Economics* 58 (1/2):3-27.

La Porta, R., F. Lopez-De-Silanes, A. Shleifer, and R. Vishny. 2002. Investor Protection and corporate valuation. *Journal of Finance* 57 (3):1147.

La Porta, R., F. Lopez-de-Silanes, A. Shleifer, and R. W. Vishny. 1998. Law and finance. *Journal of Political Economy* 106 (6):1113.

Pagano, M., A. A. Roell, and J. Zechner. 2002. The Geography of Equity Listing: Why Do Companies List Abroad? *Journal of Finance* 57 (6):2651-2694.

Reese, W. A., and M. S. Weisbach. 2001. Protection of Minority Shareholder Interests, Cross-listing in the United States, and Subsequent Equity Offerings. *NBER Working Paper Series* (No. 8164).

Schleifer, A., and R. W. Vishny. 1986. Large Shareholders and Corporate Control. *Journal of Political Economy* 94 (3):461.

Smith, K., and G. Sofianos. 1997. The Impact of a NYSE listing on the Global Trading of non-U.S. Stocks. *Working Paper 97-02*.

Tinic, S., and R. West. 1974. Marketability of Common Stocks in Canada and the U.S.A.: A Compaarison of Agent versus Dealer Dominated Markets. *Journal of Finance* 29:729-746.

Zhang, R. 2005. The Effects of Firm- and Country-level Governance Mechanisms on Dividend Policy, Cash Holdings, and Firm Value: a Cross-country Study: Working Paper, University of Tennessee.

Zhu, Hong, and K. Small. 2007. Has Sarbanes-Oxley Led to a Chilling in the U.S. Cross-Listing Market? *The CPA Journal* (March 2007).

Table 1

List of Italian companies with ADRs listed on United States stock exchanges

Issuer	Active	Listed	Exchange	MSCI Industry
Alitalia - Linee Aeree Italiane, SpA.	A	5/18/98	PORTAL	Transportation - Airlines
Banca Commerciale Italiana	A	3/10/94	PORTAL	Banking
Banca Popolare di Brescia S.C.	A	10/1/97	PORTAL	Banking
Bastogi IRBS	A	12/31/86	OTC	Real Estate
Benetton Group SpA	A	1/1/87	NYSE	Textiles & Apparel
Bulgari SpA	A	7/6/95	PORTAL	Recreation, Other Consumer Goods
Credito Italiano	I	12/21/93	PORTAL	Banking
De Rigo SpA	I	10/19/95	NYSE	Misc. Materials & Commodities
Ducati Motor Holding SpA	A	3/19/99	NYSE	Automobiles
Enel SpA	A	3/31/06	NYSE	Utilities - Electrical & Gas
Eni SpA	A	12/5/95	NYSE	Energy Sources
Eridania Z.N, SpA	A	12/31/86	OTC	Food & Household Products
Esaote Biomedica	A	6/20/96	PORTAL	Health & Personal Care
Fiat SpA	A	1/1/89	NYSE	Automobiles
Fiat SpA	A	1/1/89	NYSE	Automobiles
Fiat SpA	A	1/1/89	NYSE	Automobiles
Fila Holding SpA	I	6/1/93	NYSE	Recreation, Other Consumer Goods
Gentium SpA	A	6/16/05	NASDAQ	Chemicals
Industrie Natuzzi SpA	A	5/13/93	NYSE	Appliances & Household Durables
Instituto Mobilaire Italiano SpA	I	2/16/94	NYSE	Banking
Instrumentation Laboratory SpA	I	10/28/96	NASDAQ	Health & Personal Care
Interpump Group SpA	A	6/1/99	PORTAL	Machinery & Engineering
Istituto Bancario San Paolo di Torino, SpA	I	6/3/97	PORTAL	Banking
Istituto Nazionale delle Assicurazioni, SpA	I	7/6/94	NYSE	Insurance
Italcementi Fabriche Riunite	A	6/30/89	OTC	Building Materials & Components
Luxottica Group SpA	A	1/1/90	NYSE	Health & Personal Care
Mediaset SpA	I	6/30/04	PORTAL	Broadcasting & Publishing
Mediaset SpA	A	1/19/05	OTC	Broadcasting & Publishing
Montedison SpA	I	1/1/91	NYSE	Multi-Industry
Montedison SpA	I	1/1/91	NYSE	Multi-Industry
Olivetti & C. SpA (Ord)	A	12/31/86	OTC	Data Processing & Reproduction
Parmalat Finanziaria SpA	A	8/9/96	PORTAL	Food & Household Products
Pirelli SpA	A	11/12/91	OTC	Industrial Components
SAES Getters SpA	I	5/29/96	NASDAQ	Misc. Materials & Commodities
Sanpaolo IMI SpA	A	11/1/98	NYSE	Banking
Simint SpA	I	6/1/92	OTC	Textiles & Apparel
Simint SpA	I	6/1/92	OTC	Textiles & Apparel
SNIA Viscosa	A	6/29/89	OTC	Multi-Industry
Societa Italiana Distribuzione Moderna SpA	A	6/30/89	OTC	Merchandising/Retail
STET	I	7/30/91	PORTAL	Telecommunications

STET	I	12/31/86	OTC	Telecommunications
STET	I	7/27/95	NYSE	Telecommunications
STET	I	7/27/95	NYSE	Telecommunications
Telecom Italia SpA	A	7/27/95	NYSE	Telecommunications
Telecom Italia SpA	A	7/27/95	NYSE	Telecommunications
UniCredito SpA (formerly: Credito Italiano)	A	12/21/93	PORTAL	Banking

This table lists companies with ADRs on the United States markets from 1993 to 2005, based on data from the Citigroup Depositary Receipt Services (http://wwss.citissb.com/adr/scripts/uig/pgm_s.asp). Different classes of shares of the same company are listed here as different ADR programs (i.e., FIAT S.P.A. cross-lists 3 different ADR programs). Each class of shares assigns to the shareholder different voting and cash flow rights (similarly to class A and B shares in the U.S.).

Table 2

Capital Raising Events for Italian ADRs listed on United States stock exchanges

Issuer	Event Date	# Of Shares	USD Price	USD Value
Alitalia - Linee Aeree Italiane, SpA	5/18/98	4,000	80.85	323,400
Banca Commerciale Italiana	3/10/94	2,476,200	32.05	79,362,210
Banca Commerciale Italiana	8/17/94	31,250	19.12	597,500
Banca Popolare di Brescia S.C.	10/1/97	20,000	28.41	568,200
Benetton Group SpA	2/1/94	5,500,000	31.41	172,755,000
Bulgari SpA	7/6/95	770,000	5.32	4,096,400
Credito Italiano	12/21/93	1,478,000	18.42	27,224,760
De Rigo SpA	10/19/95	8,900,000	16.00	142,400,000
Ducati Motor Holding SpA	3/19/99	980,030	31.67	31,037,550
Enel SpA	11/5/99	3,467,000	45.23	156,803,396
Eni SpA	12/5/95	26,381,038	32.88	867,408,529
Eni SpA	10/28/96	14,500,000	46.75	677,875,000
Eni SpA	7/8/97	13,600,000	56.50	768,400,000
Eni SpA	7/7/98	3,658,900	63.96	234,023,244
Esaote Biomedica	6/20/96	190,000	25.19	4,786,100
Fila Holding SpA	6/1/93	7,500,000	18.00	135,000,000
Fila Holding SpA	10/27/95	4,837,500	39.00	188,662,500
Gentium SpA	6/16/05	2,700,000	9.00	24,300,000
Industrie Natuzzi SpA	5/13/93	9,660,000	15.00	144,900,000
Industrie Natuzzi SpA	7/20/94	3,080,000	27.38	84,315,000
Instituto Mobilaire Italiano SpA	2/16/94	6,922,445	19.24	133,187,842
Instrumentation Laboratory SpA	10/28/96	5,264,889	12.00	63,178,668
Instrumentation Laboratory SpA	6/16/98	6,585,390	1.42	9,351,254
Istituto Bancario San Paolo di Torino, SpA.	6/3/97	33,769	25.51	861,447
Istituto Nazionale Delle Assicurazioni, SpA	7/6/94	9,227,300	15.25	140,716,325
Mediaset SpA	7/12/96	367,000	45.75	16,790,250
SAES Getters SpA	5/21/96	3,082,476	17.00	52,402,092
STET	7/30/91	-	-	55,000,000
Telecom Italia SpA	10/29/97	5,000,000	64.68	323,400,000
Total				**4,539,726,667**

This table lists companies with capital raising events from 1993 to 2005 on the United States markets, based on data from the Citigroup Depositary Receipt Services (http://wwss.citissb.com/adr/scripts/uig/pgm_s.asp).

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Table 3
Descriptive Statistics

Variable	Overall Sample			ADR Sample			No ADR Sample		
	Obs	Mean	Std. Dev.	Obs	Mean	Std. Dev.	Obs	Mean	Std. Dev.
SalesEU	2299	2,990,000,000	8,750,000,000	171	12,800,000,000	19,600,000,000	2127	2,210,000,000	6,610,000,000
NetIncEU	2298	66,700,000	628,000,000	171	145,000,000	1,810,000,000	2127	60,400,000	405,000,000
CaEU	2341	2,300,000,000	7,430,000,000	173	9,730,000,000	17,500,000,000	2168	1,700,000,000	5,530,000,000
GoodEU	2293	399,000,000	2,440,000,000	170	1,880,000,000	6,160,000,000	2123	280,000,000	1,790,000,000
RetEarEU	2290	97,800,000	715,000,000	170	258,000,000	1,490,000,000	2120	85,000,000	611,000,000
Growth	2041	0.4450	8.1244	166	0.1183	0.6449	1875	0.4739	8.4738
MktVal	2119	1,490,000,000	6,380,000,000	169	5,020,000,000	13,700,000,000	1950	1,180,000,000	5,190,000,000
MktValAdj	1365	1,460,000,000	6,280,000,000		NA	NA		NA	NA
TobinQ	2296	1.5007	13.3931	171	1.2210	0.7393	2125	1.5232	13.9200
TobinQQ	1352	1.0382	0.4880		NA	NA		NA	NA
CrossListUS	2345	0.0738	0.2615	173	1.0000	0.0000	2172	0.0000	0.0000
After98	2346	0.7123	0.4528	173	0.7399	0.4400	2172	0.7099	0.4539
CrossListUSAfter	2345	0.0546	0.2272	173	0.7399	0.4400	2172	0.0000	0.0000
Divratio	2053	0.0079	0.0180	166	0.0052	0.0117	1887	0.0081	0.0184
LogCashRatio	2271	-7.7716	1.9704	171	-6.5998	2.0986	2100	-7.8670	1.9290
DiffShare	1283	-1.6845	574.0340		NA	NA		NA	NA
Retwithout	2089	0.1671	1.3715	164	0.2829	1.2667	1925	0.1572	1.3800

Variables definition: *SalesEU* is total sales in euro. *NetIncEU* is net income in euro. *CaEU* is current assets in euro. *GoodEU* is goodwill in euro. *RetEarEU* is retained earnings in euro. *Growth* is calculated as the increase in sales between year t-1 and t, divided total sales for year t-1. *MktVal* is equal to total shares outstanding times the price of a share at the end of the year (in euro). *MktValAdj* is market value adjusted (total shares outstanding adjusted for cross split/reverse split times price per share adjusted for emission of new shares/merges at the end of the year in euro). *TobinQ* is equal to the market value of assets divided by the book value of total assets: market value of assets is calculated as the book value of assets plus the market value of common stock (total shares outstanding multiplied by the price per share outstanding) less the sum of book value of common equity. *TobinQQ* is calculated as the TobinQ variable, but using the adjusted values for prices and number of shares outstanding. *CrossListUS* is a binary variable equal to 1 if shares of the company are listed on a United States stock exchange, 0 otherwise. *After98* is a binary variable equal to 1 if the year is 1998 or after, zero otherwise. *CrossListUSAfter* is the interaction term between *After98* and *CrossListUS*, it is equal to one

for the companies with ADRs listed in a United States stock exchange after 1998, zero otherwise. *Divratio* is dividend ratio, calculated as the ratio of total dividend payments to total asset. *LogCashRatio* is the log of the ratio of total cash to total assets minus cash. *Leverage* is the ratio of total liabilities to total assets. *DiffShare* is equal to the increase/decrease in shares outstanding (adjusted value) between year t-1 and year t. *Retwithout* is the return to investors without dividends (computed as *Retwithout*=(P_t-P_{t-1})-1. **NA** indicates that we did not calculate or analyze these values as part of this paper.

Table 4

Panel A: Correlation Table

	DivRatio	NetIncEU	Growth	CrossListUSAfter	CaEU	GoodEU	RetEarEU	MktVal	TobinQ
DivRatio	1								
NetIncEU	0.134	1							
Growth	-0.013	0.003	1						
CrossListUS	-0.045	0.074	-0.009	1					
CaEU	-0.057	0.078	0.039	0.286	1				
GoodEU	-0.041	0.202	0.230	0.171	0.366	1			
RetEarEU	0.192	0.446	-0.004	0.065	0.155	0.078	1		
MktVal	0.218	0.629	0.070	0.164	0.256	0.272	0.523	1	
TobinQ	0.166	0.043	0.049	-0.008	-0.063	-0.028	0.035	0.208	1

Panel B: Collinearity Diagnostics Table

Variable	VIF	Square VIF	Tolerance	Squared
DivRatio	1.10	1.05	0.9104	0.0896
NetincEU	1.78	1.33	0.5626	0.4374
Growth	1.07	1.03	0.9358	0.0642
CrosslistUS	1.11	1.05	0.901	0.0981
CaEU	1.31	1.14	0.7645	0.2355
GoodEU	1.30	1.14	0.7673	0.2327
RetEarEU	1.46	1.21	0.6828	0.3172
MktVal	2.25	1.50	0.4441	0.5559
TobinQ	1.10	1.05	0.9059	0.0941
Mean VIF	1.39			

Variables definition: Divratio is dividend ratio, calculated as the ratio of total dividend payments to total assets. *NetIncEU* is net income in euro. *Growth* is calculated as increase in sales between year t-1 and t, divided total sales for year t-1. *CrossListUS* is a binary variable equal to 1 if shares of the company are listed on a United States stock exchange, 0 otherwise. *After98* is a binary variable equal to 1 if the year is 1998 or after, zero otherwise. *CaEU* is current assets in euro. *GoodEU* is goodwill in euro. *RetEarEU* is retained earnings in euro. *MktVal* is equal to total shares outstanding times the price per share on the market at the end of the year (in euro). *TobinQ* is equal to the market value of assets divided by the book value of total assets: market value of assets is calculated as the book value of assets plus the market value of common stock (total shares outstanding multiplied by price per share outstanding) less the sum of book value of common equity. *CrossListUSAfter* is the interaction term between *After98* and *CrossListUS*, it is equal to one for the companies with ADRs listed in a Unites States stock exchange after 1998, zero otherwise.

Table 5

Panel A: Univariate results comparing before/after the 1998 reform

Hypotheses	Before 98 Mean	After 98 Mean	t value (p value)	Before 98 Median	After 98 Median	Pearson chi2 [+] (p value)
1. Div. Ratio	0.00865	0.00543	-3.4484 (.0003)	0.01199 [*]	0.01351 [*]	3.4892 (0.062)
2. Log Cash Ratio	-7.32148	-7.94287	6.7818 (0.000)	-7.60997	-8.12423	27.8002 (0.000)
3. Retwithout	0.22112	0.14647	1.1118 (0.1332)	-0.00084 [*]	0.01992 [*]	1.2287 (0.268)
4. TobinQ [♦]	0.98175	1.31346	-6.2010 (0.000)	0.89504	1.05569	129.0449 (0.000)
5. Diff Share [•]	-73.00248	38.31250	-3.3459 (0.0004)	0.0085 [*]	0.2275 [*]	4.3212 (0.038)

[*] : Because the median value for both groups is equal to zero, we calculate the median values presented in this table excluding zero.

[+] : We obtain Pearson chi square values by splitting equally between the two groups the values equal to the median.

[♦] : We omit the outliers with TobinQ values larger than 600. We obtain qualitatively the same results winsorizing the variable TobinQ to account for outliers (.9787 vs. 1.2623 means, t value of –8.7208, p-value of 0.000).

[•] : Calculated using the adjusted price and share sample.

Panel B: Univariate results comparing cross-listed and non-cross-listed firms

Hypotheses	ADRs Mean	Non ADRs Mean	t value (p value)	ADRs Median	Non ADRs Median	Pearson chi2 [+] (p value)
1. Div. Ratio	0.005189	0.00813	2.0203 (0.0217)	0.00931 [*]	0.13510 [*]	0.0133 (0.908)
2. Log Cash Ratio	-6.59984	-7.86700	-8.2042 (0.000)	-7.08553	-8.03719	30.1750 (0.000)
3. Retwithout	0.15718	.28292	-1.1271 (0.1299)	-0.00190 [*]	0.01735	0.4722 (0.492)
4. TobinQ [♦]	1.22103	1.22236	0.0145 (0.5058)	0.99230	0.98877	0.0063 (0.937)
5. Diff Share [•]	127.5499	-16.50553	-2.7378 (0.0031)	0.27976 [*]	0.09700 [*]	9.0853 (0.003)

[*] : Because the median value for both groups is equal to zero, we calculate the median values presented in this table excluding zero.

[+] : We obtain Pearson chi square values by splitting equally between the two groups the values equal to the median.

[♦] : We omit the outliers with TobinQ values larger than 600. We obtain qualitatively the same results winsorizing the variable TobinQ to account for outliers (.9787 vs. 1.2623 means, t value of –8.7208, p-value of 0.000).

[•] : Calculated using the adjusted price and share sample.

Variables definition: see Table 3 above

Table 6
OLS Regressions

$$Dependent = \alpha + \beta_0 NetIncEU + \beta_1 Growth + \beta_2 After98 + \beta_3 CaEU + \beta_4 GoodEU +$$
$$\beta_5 RetEarEU + \beta_6 MktVal + \beta_7 TobinQ + \beta_8 CrossListUS + \beta_9 CrossListUS * After$$

Dep Variable	(1) Divratio	(2) LogCashRatio	(3) Leverage	(4) TobinQ	(5) Retwithout	(6) MktVal	(7) Diffshare
NetIncEU	0.000	0.000	-0.000	-0.000	0.000	6.923	-0.000
	(1.63)	(3.02)**	(3.06)**	(3.21)**	(2.45)*	(7.12)**	(1.76)
Growth	-0.000	-0.004	-0.000	0.001	0.001	19176649.424	13.956
	(0.61)	(1.23)	(1.17)	(0.46)	(2.60)**	(1.38)	(9.99)**
After98	0.001	-0.447	-0.010	0.286	-0.286	56392115.926	-40.129
	(0.56)	(3.16)**	(0.74)	(8.25)**	(1.68)	(0.32)	(1.94)*
CaEU	-0.000	0.000	0.000	-0.000	0.000	0.166	-0.000
	(3.08)**	(0.62)	(11.81)**	(6.52)**	(1.07)	(3.39)**	(0.82)
GoodEU	-0.000	0.000	0.000	-0.000	-0.000	0.489	0.000
	(0.50)	(0.12)	(1.73)	(3.62)**	(0.83)	(2.58)**	(2.19)*
RetEarEU	0.000	-0.000	-0.000	-0.000	-0.000	1.057	-0.000
	(0.91)	(1.26)	(1.97)*	(2.64)**	(1.71)	(2.04)*	(0.34)
MktVal	-0.000	-0.000	0.000	0.000	-0.000		0.000
	(0.62)	(1.12)	(1.02)	(4.75)**	(1.25)		(1.26)
TobinQ	0.004	0.126	-0.046		0.168	1.184e+09	37.675
	(4.42)**	(1.38)	(5.65)**		(2.63)**	(6.24)**	(1.31)
CrossListUS	-0.006	1.657	-0.029	0.393	-0.204	4.518e+08	-14.555
	(2.80)**	(3.52)**	(0.85)	(1.64)	(1.07)	(0.68)	(0.40)
CrossListUS*After98	0.004	-0.437	0.034	-0.400	0.303	1.197e+09	-24.931
	(1.40)	(0.83)	(0.92)	(1.57)	(1.41)	(1.29)	(0.34)
Constant	0.003	-7.791	0.683	1.106	0.146	-1.252e+09	-5.312
	(2.11)*	(47.33)**	(43.55)**	(39.09)**	(0.70)	(4.68)**	(0.15)
Observations	1407	1391	1407	1407	1316	1407	1383

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R-squared	0.05	0.05	0.09	0.08	0.02	0.67	0.22

Robust t statistics in parentheses

* significant at 5%; ** significant at 1%

Variables definition*: **Dependent***, the dependent variable, is equal to *Divratio* in column (1), *LogCashRatio* in column (2), *Leverage* in column (3), *TobinQ* in column (4), *Retwithout* in column (5), *MktVal* in column (6), and *Diffshare* in column (7). **Divratio** is dividend ratio, calculated as the ratio of total dividend payments to total assets. **LogCashRatio** is the log of the ratio of total cash to total assets minus cash. **Leverage** is calculated as total liabilities divided by total assets. **TobinQ** is equal to the market value of assets divided by the book value of total assets: market value of assets is calculated as the book value of assets plus the market value of common stock (total shares outstanding multiplied by the price per share outstanding) less the sum of book value of common equity, winsorized at the top and bottom 1%. Untabulated results show qualitatively similar results for value of *TobinQ* non-winsorized. **RetWithout** is the return to investors without dividends (computed as *Retwithout*=(P_t-P_{t-1})-1. Untabulated results show qualitatively similar results if we adopt returns to investors including dividends. **Diffshare** is the difference in the number of shares outstanding between year t and year t-1 for company i. **NetIncEU** is net income in euro. **Growth** is calculated as increase in sales between year t-1 and t, divided total sales for year t-1. **After98** is a binary variable equal to 1 if the year is 1998 or after 1998, zero otherwise. **CaEU** is current assets in euro. **GoodEU** is goodwill in euro. **RetEarEU** is retained earnings in euro. **MktVal** is equal to total shares outstanding times the price per share on the market at the end of the year (in euro). **TobinQ** is equal to the market value of assets divided by the book value of total assets: market value of assets is calculated as the book value of assets plus the market value of common stock (total shares outstanding multiplied by the price per share outstanding) less the sum of book value of common equity, windsorized at the top and bottom 1% to control for outliers. **CrossListUS** is a indicator variable equal to 1 if shares of the company are cross-listed for the year on a United States stock exchange, 0 otherwise. The standard errors/t-statistics are calculated adopting the White's (1980) heteroskedasticity adjustment.

Columns (1) and (2) provide results for the first hypothesis in the paper, Column (3) shows results testing if companies after cross-listing and/or the 1998 reform changed their financing habits, switching from equity to debt or vice-versa. Columns (4) and (5) show the results for the model testing the second hypothesis of the paper. Untabulated results provide qualitative similar results adopting as a dependent variable the non-windsorized value of *TobinQ* or the return to investors including dividends. Finally, Columns (5) and (6) show results for the model testing the third hypothesis in the paper.

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Table 7

Number of shares vs. Value of Italian/Western European ADR exchange in the US, 1991-2005

a) $Vol_t = \alpha + \beta_0 Value_t + \beta_1 After98 + \beta_2 Value_t * After98$ and

b) $Val_t = \alpha + \beta_0 Volume_t + \beta_1 After98 + \beta_2 Volume_t * After98$

	(1) Value Italy	(2) Volume Italy	(3) Value W Europe	(4) Volume W Europe
After98	4.381e+09	97082814.313	2.550e+11	1.080e+10
	(2.07)	(2.18)	(1.09)	(2.90)*
Vol Italy	38.371			
	(7.47)**			
Vol Italy*After98	-35.724			
	(2.14)*			
Value Italy		0.024		
		(7.46)**		
Value Italy*After98		-0.022		
		(2.12)*		
Vol W Europe			46.598	
			(2.72)*	
Vol W Europe*After98			-29.817	
			(1.40)	
Value W Europe				0.020
				(2.49)*
Value W Europe*After98				-0.011
				(1.11)
Constant	-5.818e+08	21453938.292	-5.514e+10	1.485e+09
	(0.96)	(1.61)	(0.52)	(0.77)
Observations	15	15	15	15
R-squared	0.85	0.85	0.75	0.89

Absolute value of t statistics in parentheses
* significant at 5%; ** significant at 1%

Where: **After98** is a indicator variable equal to 1 for years after 1998, 0 otherwise. **Vol Italy** is the total number of ADRs exchanged annually on United States stock exchanges. **Value Italy** is the value (number times the price per share) of Italian ADRs exchanged annually on United States stock exchanges. **Vol W Europe** is the total number of ADRs for Western European companies exchanged annually on United States stock exchanges. **Value W Europe** is the value of Western European ADRs exchanged annually on United States stock exchanges. Column (1) reports results for the OLS estimation of Model b for Italy; Column (2) reports results for the OLS estimation of Model a for Italy; Column (3) reports the OLS estimation of Model b for Western Europe; and Column (4) reports results for the OLS estimation of Model a for Western Europe.

Table 8

Number of ADR Programs for Italy and Western Europe for the periods 1998-2002 and 2003-2007

	# of ADR 1997	# of ADR went inactive 1998- 2002	# of ADR went active 1998-2002	Total	% change	# of ADR went inactive 2003-2007	# of ADR went active 2003-2007	Total at the end of 2007	% change compared with 2002
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
W Europe	768	280	300	788	+2.6%	280	119	627	-20.4%
Italy	34	8	4	30	-11.8%	6	9 – Fiat 3[24]	30	0%

Column (1) shows the number of ADR programs from Western Europe and Italy, respectively, at the end of 1997. Column (2) shows the number of ADR programs that went inactive during the period 1998-2002, and Column (3) the number of ADR programs that went active over the same period. Column (4) presents the total number of ADR programs at the end of December, 2002, and Column (5) the % variation. Similarly, the rest of the table provides information about the number of ADR programs that went inactive (Column 6) and active (Column 7) between 2003 and 2007 for both Western European and Italian companies, with the total at the end of October, 2007 (Column 8) and the % variation (Column 9).

Source: Citibank ADR Website, data at Oct. 18, 2007.

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[24] Nine new Italian ADR program started between 2002 and 2007, while six went inactive. However, in August 2007, the FIAT Group announced its intention to delist its three ADR programs from the NYSE, effective 90 days from the communication to the SEC (http://www.reuters.com/article/tnBasicIndustries-SP/idUSN0334245020070803), reducing the number of new active ADR programs for the period to six.

Graph 1

Time series trading data

Number of shares and value of share in $ of Italian ADRs listed on United States stock exchanges

Volume Italy (number of shares exchanged)

Value in $ of Italian Share exchanged
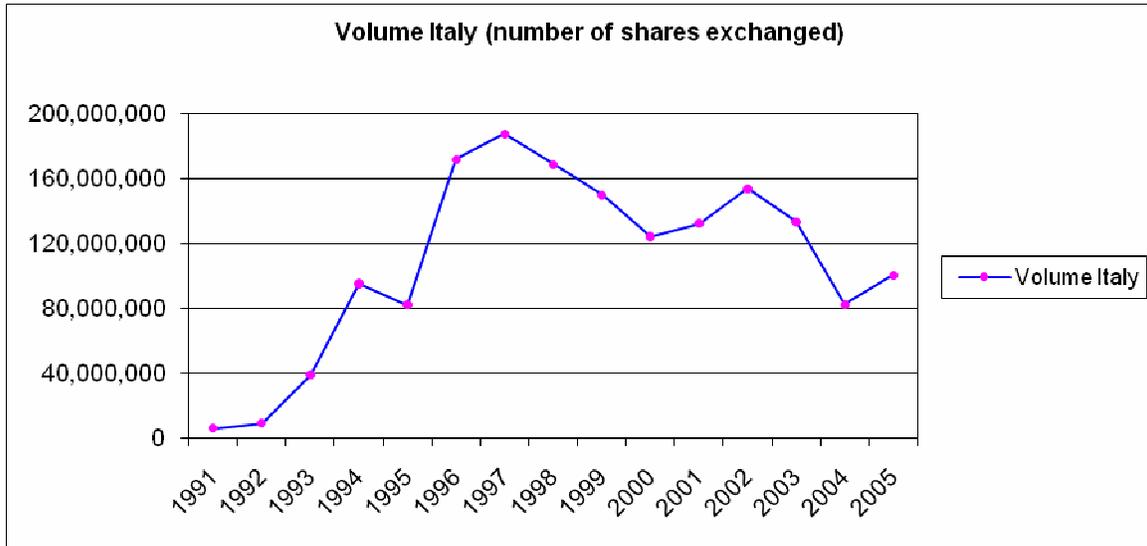
These graphs include the total number of shares and value (in U.S. $) of Italian ADRs exchanged in the United States markets each year from 1991 to 2005. Source: Citigroup Depositary Receipt Services (http://wwss.citissb.com/adr/scripts/uig/pgm_s.asp).