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An International Comparison

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Private Benefits of Control: An International Comparison

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Abstract

We construct a measure of the private benefits of control in 39 countries based on 412 control transactions between 1990 and 2000. We find that the value of control ranges between –4% and +65%, with an average of 14 percent. As predicted by theory, in countries where private benefits of control are larger capital markets are less developed, ownership is more concentrated, and privatizations are less likely to take place as public offerings. We also analyze what institutions are most important in curbing these private benefits. A high degree of statutory protection of minority shareholders and high degree of law enforcement are associated with lower levels of private benefits of control, but so are a high level of diffusion of the press, a high rate of tax compliance, and a high degree of product market competition. A crude R-squared test suggests that the "non traditional" mechanisms have at least as much explanatory power as the legal ones commonly mentioned in the literature. In fact, in a multivariate analysis newspapers' circulation and tax compliance seem to be the dominating factors. We advance an explanation why this might be the case.

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Traditional finance assumes that all common stock has been created equal and each shareholder receives the same payoff per share owned. In the last twenty years, however, a different view has slowly gained acceptance. According to this new view, a controlling shareholder can obtain some benefits that are not shared by other shareholders (the so-called private benefits of control). From a modeling device (Grossman and Hart, 1980) the idea of private benefits of control has become a centerpiece of the recent literature in corporate finance, both theoretical and empirical. In fact, the focus of the literature on investor protection and its role in the development of financial markets (La Porta et al., 2000) is not on managerial agency problems, but on the amount of private benefits that controlling shareholders extract from companies they run.

In spite of the importance of this concept, there are remarkably few estimates of how big these private benefits are, even fewer attempts to document empirically what determines their size, and no *direct* evidence of their impact on financial development. All of the evidence on this later point is *indirect*, based on the (reasonable) assumption that better protection of minority shareholders is correlated with higher financial development via its curbing of private benefits of control (La Porta et al. (1997)).

The lack of evidence is no accident. By their very nature private benefits of control are difficult to observe and even more difficult to quantify in a reliable way. A controlling party can appropriate value for himself only when this value is not verifiable (i.e., provable in court). If it were, it would be relatively easy for non-controlling shareholders to stop him from appropriating it. Thus, private benefits of control are intrinsically difficult to measure.

To be true, there are two methods to try to quantify them. The first one, pioneered by Barclay and Holderness (1989), focuses on privately negotiated transfers of controlling blocks in publicly traded companies. The price per share an acquirer pays for the controlling block reflects the cash flow benefits from his fractional ownership and the private benefits stemming from his controlling position in the firm. By contrast, the market price of a share after the change in control is announced reflects only the cash flow benefits non-controlling shareholders expect to receive under the new management. Hence, as Barclay and Holderness (1989) have argued, the difference between the price per share paid by the acquiring party and the price per share prevailing on the market reflects the differential payoff accruing to the controlling shareholder. In fact, after an

adjustment, this difference can be used as a measure of the private benefits of control accruing to the controlling shareholder.

The second method relies on the existence of companies with multiple classes of stock traded, with differential voting rights. In this case, one can easily compute the market value of a vote (Lease et al. 1983 and 1984, De Angelo and De Angelo, 1985). On a normal trading day market transactions take place between non controlling parties, who will never have direct access to the private benefits of control. Hence, the market value of a vote reflects the expected price a generic shareholder will receive in case of a control contest. This in turn is related to the magnitude of the private benefits of control. Thus, if one is willing to make some assumptions on the probability a control contest will arise, the price of a voting right can be used to estimate the magnitude of the private benefits of control (Zingales (1994) and (1995a)).

In this paper we use the Barclay and Holderness (1989) method to infer the value of private benefits of control in a large (39) cross section of countries. Based on 412 control transactions between 1990 and 2000 we find that that on average corporate control is worth 14 percent of the equity value of a firm, ranging from a –4 percent in Japan to a +65 percent in Brazil. Interestingly, the premium paid for control is higher when the buyer comes from a country that protects investors less (and thus is more willing or able to extract private benefits). This and other evidence suggest that our estimates capture the effect the institutional environment has on private benefits of control.

Given the large number of transactions from countries with different levels of financial development in our dataset, we are able to provide a direct test of several theoretical propositions on the effects private benefits of control have on the development of financial markets. Theory predicts that where private benefits of control are larger, entrepreneurs should be more reluctant to go public (Zingales, 1995b) and more likely to retain control when they do go public (Zingales (1995b) and Bebchuk (1999)). In addition, where private benefits of control are larger a revenue maximizing Government should be more likely to sell a firm through a private sale than through a share offering (Zingales, 1995b, Dyck ,2001).

We find strong evidence in support of all these predictions. A one standard deviation increase in the size of the private benefits is associated with a 48 percent reduction in the ratio of external market capitalization of

equity to GNP, a 6 percent reduction in the percentage of equity held by non-controlling shareholders, and a 35 percent increase in the number of privatized companies sold in private negotiations rather than through public listing. This evidence gives support to the prominent role private benefits have come to play in corporate finance.

While the existence of private benefits is not necessarily bad, their negative effect on the development of security markets raise the question of what affects their average size across countries. Thus far, the literature has emphasized the law as the primary mechanism to curb private benefits by giving investors leverage over controlling shareholders. The right to sue management, for instance, limits the discretionary power of management and, with it, the ability to extract private benefits (Zingales (1995a)) and so does any right attributed to minority shareholders (La Porta et al. (1997)). A common law legal origin is likewise argued to constrain management by lowering the standard of proof in legal suits and increasing the scope of management decisions subject to judicial review (Johnson et al (2000)). Empirical examinations have consequently focused almost exclusively on the presence of laws, their enforcement and information that makes it possible for investors to use legal mechanisms to penalize abusive behavior.

While we consider the importance of legal institutions, we depart from this literature in not assuming that legal institutions are the only or necessarily the most binding constraints controlling shareholders face in extracting private benefits. In fact, business decisions have a degree of arbitrariness difficult to eliminate, which constrains courts' willingness and ability to interfere in decisions that can produce private benefits. Therefore, it is possible that reputational or moral considerations (Coffee (2001), Dyck (2000)), or institutions not focused on shareholder rights, play a role in limiting the consumption of private benefits.

Accordingly, we analyze whether extra legal institutions, which theory suggests could limit private benefits, are also associated with lower measured private benefits, both by themselves and after controlling for legal institutions. We begin our analysis by focusing on three extra-legal institutions prominent in the literature: the potential to limit private benefits through external product market competition, through internal pressures from organized labor, and through the internal policeman of moral norms.

Shleifer and Vishny (1997), for example, recognize the potential for product market competition to limit

private benefits by reducing rents available to be diverted. As Roe (2001) notes, the extent of rents is not driven just by industrial characteristics but by national characteristics, such as the enforcement of competition laws, that leave firms within a country with more rents to be distributed.

Others have looked inside the firm for constraints on controlling shareholders, with labor attracting some attention as a potential policeman to monitor controlling shareholders and stop diversionary activities. Labor is well positioned to monitor having non legal leverage over the controlling shareholder through the ability to penalize insiders through threats of work stoppages and in some cases direct channels to stop activities through their position on the board. But labors' incentives and ability to reduce private benefits cannot be assumed, as labor could combine with the controlling shareholder against the interests of outside investors (Pagano and Volpin (2000)) and may not have access to information to identify many diversionary practices.

Yet others have seen potential restraint on private benefits coming neither from legal punishment for appropriation, nor penalties from other interest groups delivered through non-legal channels, but rather from moral concerns of the controlling shareholder. Coffee (2001), for instance, highlights the potential internal policeman of moral norms, suggests that they account for the fact that Scandinavian countries have well functioning financial markets in spite of weak formal protections for investors. Stulz and Williamson (2001) make a related argument about the possibility that culture, defined as "a system of beliefs that shape the actions of individuals in society," may also play a role in determining managerial actions.

We test for the association with these extra legal institutions and private benefits and go further to examine the potential impact of the press, and the government through its role in enforcing corporate taxation laws.

Reputation is a powerful source of discipline, and being ashamed in the press might be a powerful deterrent (Zingales, 2000), especially where the press is more diffused. The potential role of the press has been highlighted in several notable success stories for investor activists in both developed and developing countries but has, to our knowledge, largely been ignored in empirical examinations of corporate governance.[1]

[1] Djankov et al (2001) analyze media ownership and its correlation with the performance of several macro institutions, but they do not look at the diffusion of the press, nor at its effect on corporate governance.

The government also has powers beyond the ability to pass and enforce protections for investors that might limit diversion. We think the taxation system plays an important, and thus far ignored, role. Tax authority and minority shareholders have a common objective: to verify the income produced by a corporation. In performing this verification role, the tax authority can directly reduce private benefits by identifying and disallowing diverting practices, such as the notorious examples in Russia where companies have sold oil to offshore companies completely controlled by controlling shareholders at below market prices (Black, Kraakman and Tassarova (2000), Federov (2000)). In short, effective tax enforcement has features of a public good in that it can reduce private benefits of control.

We test these alternative theories, both separately and one against the other, at least within the scope allowed by the limited degrees of freedom available. We provide direct support for the contention that legal protections can limit private benefits, finding that a high degree of statutory protection of minority shareholders and high degree of law enforcement are associated with lower levels of private benefits of control. This direct evidence complements the existing body of evidence that is primarily anecdotal (Zingales (1995a), Johnson et al (2000)) or indirect (La Porta et al., 1997).

But we also find that extra-legal protections are associated with lower private benefits of control, particularly a high level of diffusion of the press, a high rate of tax compliance, and a high degree of enforcement of competition laws. A crude R-squared test suggests that these extra legal mechanisms have at least as much explanatory power as the ones commonly mentioned in the literature. In fact, in a multivariate analysis newspapers' circulation and tax compliance seem to be the dominating factors.

While the multi collinearity of our institutional variables limits our ability to disentangle the institutional forces in a definitive way, it does suggest that there are no empirical grounds for ignoring extra legal mechanisms and their potential to limit private benefits. Our results also suggest that the contention arising from the existing literature that legal reform is a necessary step for financial market to flourish might be premature. Extra legal mechanisms appear to be at least as important as legal ones. While changing the legal system might require a long period of time, improving the corporate taxation system is well within the range of feasible reforms. If this is indeed an alternative mechanism by which private benefits of control can be curbed and

financial markets fostered, the benefits of financial development might be within reach for many more countries.

Our paper complements and expands the existing work in this area that focuses on the voting premia such as Zingales (1998), who assembles estimates of the voting premium across seven countries, and Nenova (2000), who uses the price of differential voting shares in 18 countries. We complement the existing work by providing an alternative estimate of the private benefits of control, available for a broader cross section of countries. While in a few cases our estimates differ from Nenova's (she finds that both Brazil and Australia have a ratio of value of control to value of equity equal to 0.23, while we find only 0.02 for Australia and 0.65 for Brazil), overall our estimates are remarkably similar. Moreover, we are able to understand the differences between the two sets of estimates in terms of a sample selection bias present in estimates based on differential voting shares. These findings give confidence that the extraction of private benefits is a real phenomenon, which can be consistently estimated.

Our paper also expands the existing work. The estimates for 39 countries allow us to test several theoretical propositions on the effects private benefits of control have on the development of financial markets. While Zingales (1998) focuses on the correlation of private benefits with accounting standards and Nenova (2000) focuses on legal protections, our larger sample of countries enable us to test alternative theories of the major factors driving the magnitude of private benefits of control and to identify some new ones.

The rest of the paper proceeds as follows. Section II discusses how the measure developed by Barclay and Holderness (1989) relates to the magnitude of the private benefits of control. Section III describes the data used and presents our estimates. Section IV uses these estimates to test several theoretical predictions regarding the effects private benefits of control have on the development of markets. Section V analyzes the correlation between the magnitude of the private benefits of control and the various institutional characteristics. Section VI discusses our findings and concludes.

II – Theoretical Framework

II.1 What are private benefits of control?

The theoretical literature often identifies private benefits of control as the "psychic" value some

shareholders attribute simply to being in control (e.g., Harris and Raviv, 1988; Aghion and Bolton, 1992). Although this is certainly a factor in some cases, it is hard to justify multimillion dollars premia with the pure pleasure of command. Another source of private benefits of control is the perquisites enjoyed by top executives.

The use of a company's money to pay for perquisites is the most visible but not the most important way in which corporate resources can be used to the sole (or main) advantage of the controlling party. If the law does not effectively prevent it, corporate resources can be appropriated by the large shareholder through outright theft. Fortunately such activities, while documented in a few cases, are generally rare.

Nevertheless, there are several reasons why more moderate versions of these strategies might be more pervasive. Educated economists can legitimately disagree on what is the "fair" transfer price of a certain asset or product. As a result, small deviations from the "fair" transfer price might be difficult or impossible to prove in court. If these small deviations are applied to large volume trade, however, they can easily generate sizeable private benefits. Similarly, it is easy to disagree over who is the best provider of an asset or product when the relationship might involve considerations of quality and price.

Or consider the value of the information a corporate executive acquires thanks to his or her role in the company. Some of this information pertains directly to the company's business while some reflects potential opportunities in other more or less related areas. It is fairly easy for a controlling shareholder to choose to exploit these opportunities through another company he or she owns or is associated with, with no advantage for the remaining shareholders. The net present value of these opportunities represents a private benefit of control.

The common feature of all the above examples is that some value, whatever the source, is not shared among all the shareholders in proportion of the shares owned, but it is enjoyed exclusively by the party in control. Hence, the name private benefits of control.

Control does not only confer benefits: sometimes it involves costs as well. Maintaining a controlling block, for instance, forces the largest shareholder to be not well diversified. As a result, it might value the controlling block less. At the same time, a fledging company might inflict a loss in reputation to the controlling party and, in some extreme cases, even some legal liabilities. For this reason we do not necessarily expect all our

estimates to be always positive. In particular, we expect a higher frequency of negative value of control for financially distressed companies (see also Barclay and Holderness, 1989).

Note that the existence of private benefits of control is not necessarily inefficient. First of all, private benefits might be the most efficient way for the company to capture some of the value created. Imagine, for instance, that a corporate executive acquires valuable information about investment opportunities in other lines of businesses, which the company cannot or does not want to pursue. The executive could sell this information in the interest of shareholders. But the price she will be able to fetch is probably very low. Thus, it might be efficient that the executive exploits this opportunity on her own. Second, even if the *extraction* of private benefits generate some inefficiency, their *existence* might be socially beneficial, because their presence makes value-enhancing takeovers possible (Grossman and Hart (1980)).

Given the difficulties in distinguishing whether private benefits are socially costly, consistently in this analysis we will shy away from any welfare consideration. Even the implications of the effects of private benefits on the development of security markets should be interpreted as a positive statement, not a normative one. In fact, in at least one of the models from where these implications are derived (Zingales, 1995b), the level of private benefits has no efficiency consequences, but only distributional ones.[2]

II.2 How to measure private benefits?

Unfortunately, it is very difficult to measure the private benefits directly. As argued above, a controlling party would find it possible to subtract corporate resources to his or her benefit only when it is difficult or impossible to prove that this is the case. In other words, if private benefits of control were easily quantifiable, then those benefits would not be private (accruing only to the control group) any longer because outside shareholders would claim them in court.

Nevertheless, there are two methods to try to assess empirically the magnitude of these private benefits of control. The first one, pioneered by Barclay and Holderness (1989), is simple. Whenever a control block changes hands, they measure the difference between the price per share paid by the acquirer and the price quoted in the market the day after the sale's announcement. As we will show momentarily, this difference

(which we shall call the control premium) represents an estimate of private benefits of control enjoyed by the controlling party.

The second method of estimating the value of private benefits of control uses the price difference between two classes of stock, with similar or identical dividend rights, but different voting rights. If control is valuable, then corporate votes, which allocate control, should be valuable as well. How valuable? It depends on how decisive some votes are in allocating control and how valuable control is. If one can find a reasonable proxy for the strategic value of votes in winning control - for example in forming a winning coalition block - then one can infer the value of control from the relationship between the market price of the votes and their strategic role. This is the strategy followed by Rydqvist (1987), Zingales (1994 and 1995a) and Nenova (2000).

Both methods have pluses and minuses. We choose the first one for two main reasons. First, dual class shares are not allowed in every country. Thus, choosing the second method would severely limit the number of countries that can be included in the study. Second, the number of companies that choose to have dual class shares in the countries that allow them to is not equal across countries. Thus, the estimates obtained using the second method represent a different universe of companies. Since the decision to have dual class stock is a company's choice, the sample available is selected. This bias can distort international comparisons.

Last but not least, the estimates obtained with the first method are more model free. If we are careful in isolating only the transactions that transfer control, we do not have to worry about the proper model of how private benefits will be shared among different parties and what is the probability of a takeover.

II.3 Theoretical relation between control premium and size of the private benefits of control

Let l, on the interval [0,1], be the bargaining power of the controlling shareholder selling out, $B_{s,b}$ the level of private benefits extracted by the seller (buyer), and $Y_{s,b}$ the level of security benefits generated by the seller (buyer), then the price *P* paid for a controlling block of shares with a cashflow rights, on the interval [0,1], is

[2] Bebchuk and Jolls (1999) discuss additional issues associated with a welfare evaluation of private benefits.

(1) $$P = \lambda (B_b + \alpha Y_b) + (1-\lambda)(B_s + \alpha Y_s)$$

and the per share price of the controlling block equals

(2) $$\frac{P}{\alpha} = \frac{\lambda B_b + (1-\lambda)B_s}{\alpha} + \lambda Y_b + (1-\lambda)Y_s .$$

To compute the control premium Barclay and Holderness (1989) subtract from (2) the price prevailing in the market after the announcement that control has changed hands, which should equal to Y_b. Thus, they obtain

(3) $$\frac{\lambda B_b + (1-\lambda)B_s}{\alpha} - (1-\lambda)(Y_b - Y_s).$$

They then multiply this price difference by the size of the controlling block α. Hence, their estimate of private benefits of control $\hat{B}$ is

(4) $$\hat{B} = \lambda B_b + (1-\lambda)B_s - \alpha(1-\lambda)(Y_b - Y_s).$$

In a perfectly competitive market (λ =1) $\hat{B}$ collapses to B_b and thus the control premium is a legitimate estimate of the private benefits of control the buyer expects to enjoy. When the market is not perfectly competitive, $\hat{B}$ represents a weighted average of the private benefits of the seller and those of the buyer, adjusted for the difference in their security value.

To grasp the sense of this correction, let consider the extreme situation where the buyer has all the bargaining power and thus buys the controlling block at the seller reservation value ($\frac{P}{\alpha} = \frac{B_s}{\alpha} + Y_s$). In such a case the proper adjustment factor would be the market price before the announcement of the change in control. As a result, $\hat{B}$ calculated as in (4) will tend to underestimate the average private benefits of control enjoyed by

the controlling party whenever $Y_b > Y_s$. Hence, the need for a correction.

III – Data and Descriptive Statistics

An example motivates our sample selection strategy and definition of our dependent variable. In January 1999 Ofer Brothers Investment limited, an investment vehicle for Sami and Yuli Ofer of Israel, bought 53% of the shares and control of Israel Corporation limited from the Eisenberg family. The price per share for the control block was reported to be 508 shekels per share while the exchange price after announcement of the transfer was 363 shekels per share. The price premium paid per share for the controlling block over the post announcement price in this case is 40 percent. A better measure of the value of the private benefits of control is the total premium paid divided by the equity value of the firm. In this example, the Ofer brothers paid a 40 percent premium relative to the post announcement price for 53% of the firms' equity, which produces an estimate of private benefits as a percentage of equity of 21%. This example turns out to be fairly typical of Israeli deals where we calculate a mean private benefit as a percentage of equity of 27% and a median value of 21%.

As suggested by this example, to construct a measure of private benefits we need to identify transactions that meet at least three criteria. First, the transaction must involve a transfer of a block of shares that convey control rights. Second, we need to observe the price per share for the control block. Third, we have to observe the exchange price after the market has incorporated the identity of the new acquirer in its expectation of future cash flow. We also add a fourth criteria, implicit in this choice of an Israeli deal – both the control and the post announcement market prices should not be restricted by regulation. Many countries do not follow the Israeli (and US) approach of allowing buyers and sellers to determine their own prices but impose some link between the exchange and the control price. As we will explain, we will eliminate all these cases from our sample.

III.1 Identifying transactions

To identify transactions that convey control rights we use the SDC international mergers and acquisitions database. SDC describes its sources as: "Over 200 English and foreign language news sources, SEC

filings and their international counterparts, trade publications, wires and proprietary surveys of investment banks, law firms and other advisors." The database provides extensive information on transactions that involve transfers of blocks of shares that may convey control, including details of the parties to the transaction, the value of the transaction, and the date of announcement and conclusion of the transaction. SDC provides extensive international coverage with 7,144 transactions in 1990 (including 396 transactions from non OECD countries) and steadily increasing numbers over the decade, including 21,881 transactions in 1999 (including 3,300 from non-OECD countries).

To identify candidates for control sales we began with the complete set of control transactions from 1990-2000 and then restricted our attention to completed purchases of sizable blocks in publicly traded companies that could convey control. In particular, we define as potential candidates for control transfers any transaction that results in the acquiror moving from a position where they hold less than 20 percent of the shares to a position where they have assembled more than 20 percent of the shares. We exclude all transactions that were conducted through open market purchases and were identified by SDC as tender offers, spinoffs, recapitalizations, self-tenders, exchange offers, repurchases and acquisitions of remaining interest. We further restricted ourselves to transactions where there was a reported transaction value or price per share in the control block.

We refined our sample by exploiting additional available qualitative data to screen out transactions that do not involve control transfers (e.g. transfer of shares among subsidiaries of common parent, where acquiror is not the largest shareholder) or were problematic for other reasons (e.g. involved related parties, reported price per share based on securities that could not be valued objectively, transfer involved the exercise of options). This step involved reading multiple news stories for every transaction resulting from searches of Lexis-Nexis and Dow-Jones Interactive to confirm the details of the transaction collected by SDC and collecting ownership information through use of company annual reports and other sources. This process significantly increased our confidence in the observations included in the dataset but inevitably involved greater use of discretion in determining whether an observation was included in our data set.

To ensure the availability of exchange prices we restricted ourselves to transactions involving companies available in the Datastream International database. To implement the criterion that the difference between the control price and the exchange price not be driven by legal requirements, we excluded observations driven by legal requirements. We first excluded all instances where the controlling block was purchased as part of a public offer, as in this circumstance there are usually laws that require all shareholders be treated equally. We researched rules regarding mandatory tender offers across different countries and only include transactions where there is no forced linkage between prices for the control block and prices on the exchange. For example, in Britain where the city code on takeovers requires that those who purchase a stake greater than or equal to 30% of the shares make an equal offer to all remaining shareholders on the same terms as the block sale, we restrict our attention to block sales less than 30 percent. As an illustration of the importance of this legal threshold, more than one quarter of our observations are between 29 and 30 percent, with a median block size of 25 percent.

Table I summarizes our variable definitions and sources. The data appendix provides a more complete description of the construction of our sample. Appendix Table 1 lists countries and rules regarding control transactions. Appendix Table 2 lists the number of equities available for Datastream in each sample year from each of our countries.

III.2 Descriptive Statistics of the Raw Control Premium

Table II presents descriptive statistics of the block premia from our sample by country in which the acquired firm is located. After imposing our criteria we have an unbalanced panel of 412 observations from 39 countries for the time period 1990-2000.[3] The sample includes more than 40 observations from active equity markets such as the United Kingdom and the United States. For some countries despite looking at the full population of control transactions available in SDC we have relatively few observations as a result of the combination of weak coverage by Datastream, few reported prices for control sales, and limited observability of control premia as a result of laws regarding tender offers in case of control sales. The rank ordering of countries

[3] We only include countries in our analysis if there were 2 or more transactions over our sample period. The final sample is based on all of the data available over the 10 year sample period for every country aside from the US. For the US, there were many more potential observations and we limited ourselves to an initial sample based on the first 20 transactions for each calendar year over our 10 year sample period that met our sample selection criteria.

by control premia is very similar using mean and median values suggesting that our results are not driven by a few outliers. Table III reports several characteristics of the deals that we will use later in our empirical analysis.

The first column of Table IV presents the average control premium ($\hat{B}$ calculated as in (5) normalized by V_b) by country. Overall the average control premium is 14 percent if each country has an equal weight and 10 percent if each observation receives equal weight. In 10 of our 39 sample countries we find that the control premia exceeds 25 percent of equity value. These high private benefit countries include Argentina, Austria, Colombia, the Czech Republic, Israel, Italy, Mexico, Turkey, Venezuela, and Brazil, which has the highest estimated value of 65 percent. At the other extreme, we have 14 countries where private benefits are 3 percent of the value of equity or less. These low private benefit countries include Australia, Canada, Finland, France, Hong Kong, Japan, Netherlands, New Zealand, Norway, Singapore, South Africa, Taiwan, the United Kingdom, and the United States.

As Table III shows, the difference between the security value produced under the buyer and under the seller on average is a positive 6 percent. Hence, according to equation (5), $\hat{B}$ underestimates the value of private benefits. Table IV (column 2) presents our estimates of the control premium after adjusting for the difference in security benefits ($\frac{\hat{B}}{V_b} - (1-l)\alpha\frac{(V_b - V_s)}{V_b}$). In this expression only l is unobservable. In principle, l is a transaction-specific variable that depends upon the buyer's and of the seller's characteristics. In order to estimate it, however, we restrict it to be equal across all transactions. Our estimate of (1- l) is 0.368, statistically different form zero at the 10 percent level. Not only does this estimate lie in the [0,1] interval, as predicted by the model, but it is also very reasonable. It suggests that the on average the seller captures two thirds of the gains from trade.

After we make this adjustment, a few countries see the average estimated private benefits of control increase. For example, the estimate for the United States goes from 1.8 to 3.5 percent. The overall ranking, however, remains substantially unchanged.

III.3 Differences in deal and firm characteristics

Cross-country differences in the level of private benefits could be driven by systematic differences in deal characteristics and firm characteristics. To increase confidence that our estimates of block premia reflect country differences rather than other characteristics, we generate revised estimates based on a regression of our raw data against firm and deal characteristics.

Differences in the extent the block carries control

First of all, we assume that all transactions transfer absolute control. This is probably incorrect. The transfer of a 20% block does not carry the same amount of control as the transfer of a 51% block. Similarly, the transfer of a 30% block when there is another shareholder controlling 20% carries less control than the transfer of the same block when the rest of the shares are dispersed. Thus, per given size of private benefits control blocks above 50% are likely to fetch a higher price. Similarly, the presence of another large shareholder (a stake in excess of 20 percent) should reduce the premium. [4]

In our sample 27 percent of the transactions involve sales that exceed 50 percent of the votes and in 16 percent of the cases the acquirer has to deal with another large shareholder with more than a 20 percent stake.[5] As shown in Table IV, ceteris paribus an absolute majority of votes increases the value of a controlling block by 9.6 percent of the total value of equity, significant at the 1 percent level. Contrary to expectations, the presence of another large shareholder has a positive effect on the premium, but this is not statistically significant.

Differences in the extent of the seller's bargaining power

In estimating the private benefits of control, we assumed that the seller's bargaining power is constant across deals. Variation in the seller's bargaining power will affect our estimates of the private benefits of control: per given size of private benefits of control, the lower the seller's bargaining power, the lower our estimates.[6] We try to control for these differences with three proxies.

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[4] In Canada and Australia we used 15 percent since exceeding 20 percent would trigger a mandatory offer for remaining shares.

[5] An alternative approach to identify the likelihood that a stake brings control is to calculate a Shapley value associated with control. Unfortunately, we were not able to collect information on a consistent basis of the ownership status of other shareholders. For example, some countries might report the presence of all shareholders with stakes that exceed 5% while other countries might only report holdings that exceed 10 percent or higher.

[6] The higher the seller's bargaining power, the more she will be able to extract per given value, thus the higher will be the price per share paid for the controlling block and, hence, our estimate of the private benefits of control.

First, if the company is in financial distress, the seller is more likely to be forced to sell. Hence, her bargaining power is smaller. As a proxy for financial distress, we create a dummy variable that takes value 1 if earnings per share are zero or negative in the year of the block trade or the year preceding the block trade.[7] In our sample 26 percent of the firms are in financial distress in the year of the block trade and 22 percent in the year preceding the block trade. As expected, firms in financial distress exhibit a control premium that is 5.5 percentage points lower. This effect is statistically significant at the 5 percent level.

Similarly, that the acquisition of a controlling block takes the form of an equity infusion probably indicates that a company needs to raise equity, a sign of a weak bargaining position. We insert a dummy if the block was formed by newly issued equity (16 percent). This method is particularly diffused in Japan where in a majority of cases control is transferred by a financially distressed company via a private placement of newly issued equity. This clustering underscores the importance of controlling for industry firms' and deals' characteristics, to avoid attributing to the Japan institutional framework a feature due to the particular economic phase Japan has been going through during our sample period. Contrary to expectations, the fact a block was created through a new equity offering has a positive effect on the premium, but this is not statistically significant.

Finally, foreign acquirers generally face more competition (at the very least because the fact they are involved implies the transaction is open to foreign buyers and thus there is a larger pool of potential acquirers). Thus, the bargaining power of the seller in these transactions is likely to be bigger. We find that foreign buyers pay a premium of 6 percent that is statistically significant at the 10 percent level.

Estimates of private benefits controlling for differences in deals' and firms' characteristics

At the bottom of column 3 of Table IV we report the estimates of the country average level of private benefits after we control for the above differences in deal and firm characteristics. Since many of the control variables included capture part of the value of control, the country fixed effects alone are not any more a good estimate of the absolute level of private benefits. Hence we focus on the relative rankings. Including these controls dramatically lowers the ranking for countries characterized by higher than average incidence of foreign

[7] While other measures of cash flow are preferable, earnings per share is one of the few data items consistently reported in Datastream for the companies in our database.

acquirors and sales of majority stakes like Germany, Switzerland, Egypt, and Poland. In a way this is an improvement over our raw data, for it keeps constant deal characteristics.

On the other hand, these estimates suffer from an econometric problem. To estimate the impact of these deal and firm characteristics we had to impose that this impact is constant across countries. In some cases this assumption might be untenable. Imposing a similar effect throughout the results reported in column 3 might underestimate differences across countries. In fact, the difference between acquiring a 51 percent stake rather than a 30 percent one might be huge in a country where private benefits of control are large, but it might be small or even irrelevant in a country where the private benefits of control are very tiny. [8] The regression, however, imposes the same effect to all the countries.

In the rest of the paper, where we explore the effects and causes of these cross-country differences, we focus on a refined measure that incorporates controls to keep constant deal (and other) characteristics. But recognizing that these deal characteristics may not be constant across countries, we also test and report results without controls.

III.4 Differences in industry and buyer/seller characteristics

Cross country differences could also arise because of other differences in industry and deal characteristics. Private benefits might differ across industry. The media industry, for instance, is often mentioned (Demsetz and Lehn (1985)) as an industry where private benefits are larger. Similarly, individuals might value opportunities to consume prerequisites more highly than corporate blockholders (see e.g., Barclay and Holderness, 1989). We want to make sure our cross country comparison is not affected by any systematic difference in the industry characteristics of the deals or the nature of the seller and the buyer. For this reason we re-estimate the country averages, controlling for differences in industry characteristics and identity of the controlling party.

[8] Since we have enough observations for the United States (47), we can assess the realism of our assumption by estimating the same specification restricted to U.S. data. While the other coefficients are very similar to the ones reported in Table IV, the coefficient of the majority block dummy is small and insignificant. "Imposing" to the Unites States the same majority dummy effect than other countries, thus, will distort its average level of private benefits upward.

To capture industry differences we introduce an industry dummy based on the two-digit SIC code of the acquired firm. About three quarters of our transactions are accounted for by manufacturing (39 percent), finance insurance and real estate (23 percent) and services (10 percent). In a crude way these controls capture differences in private benefits linked to product market competition. Second, we construct a measure of tangibility of assets (percentage of total assets that are fixed) based on the three digit SIC code the acquired firm belongs to. The argument for this control is that insiders will have more difficulty diverting resources if assets are tied down and easily observable, as is the case with tangible assets. To avoid potential endogeneity problems we use US averages (see Rajan and Zingales (1998))[9].

Table IV column 4 shows that firms with more tangible assets have lower private benefits and the industries of wholesale trade, finance(financial, insurance, and real estate sector) and transportation and utilities have higher level of private benefits than firms in manufacturing, although these results are not significant. Including both types of industry controls in a sense overcontrols for industry effects, with tangibility (coefficient = -.11, pvalue=.033) and financial industry (coefficient = .076, pvalue=.019) being significant in regressions that include these industry variables separately (not reported).

We also collected information on the identity of the acquirer and the seller. To identify characteristics of the seller, we focus exclusively on the news stories, identifying whether the seller is an individual, the company itself (through new share issues), a corporate entity, or unknown. Here we find the most common seller to be a corporation, followed next by individuals (18 percent), new share issues (16 percent), unidentified (8 percent) and the government (3 percent). We use SDC data to identify whether the acquirer is a public company, subsidiary, the government, or a private company. The typical transaction in our sample involve a public acquirer (42 percent), although private acquirers are also very common (40 percent). We provide a further classification using news stories and the SDC synopsis fie ld. We identify 13 percent of our transactions involving an individual acquirer, using as our criteria whether the stories mention the name of an individual or if the private company involved is identified with a particular individual. We also identify 4 percent of transactions involving a financial intermediary who purchases the shares and then resells the shares to

[9] We derive US measures in a two-step procedure. First, we computed the average ratio of fixed assets (property plant and equipment) to total assets for all companies that in each three digit SIC-code for the period 1990-1999. Then we took the median value across all companies. We then impute this value for all of the companies in our sample.

institutional investors. We interpret these acquisitions as the dispersal of the controlling stake. None of these buyer or seller characteristic turns out to be significant.

At the bottom of column 4 of Table IV we report the estimates of the country average level of private benefits after we control for the above differences in level of private benefits across industries. The relative ranking, however, does not seem to be affected very much by these industry controls.

III.5 Alternative Interpretations

Thus far, we have interpreted block premia as indicative of private benefits. Yet, there are alternative interpretations that we need to consider. The most important alternative interpretation, already considered and rejected by Barclay and Holderness (1989) in the U.S. sample, is that control premia arise from a systematic overpayment, possibly due to a winner's curse problem.

As in Barclay and Holderness (1989) we check for this possibility by looking at the announcement effect on the stock price of the acquiring company. If these premia reflect overpayments, acquiring firms should experience negative returns at the announcement of the transaction. In our sample we have 203 observations where the acquirer is a publicly traded company and the stock price is reported in Datastream for 125 of those. Table V presents the results of our analysis. Inconsistent with the overpayment hypothesis, the mean value of the announcement effect is slightly positive (0.5 percent) and not statistically different from zero.

Another implication of the overpayment hypothesis is that the buyer's announcement return should be negatively related to the size of the control premium. In Table V, panel B we regress the acquirors' cumulative abnormal returns around the transaction on the raw control premium. We focus on a 16 day event window (t-8 to t+7) to allow for information about the transaction to be leaked in advance or to be communicated slowly ot the market although results are not significantly affected by the choice of window. The coefficient is indeed negative, but is neither economically nor statistically significant (coefficient of –0.018, p-value of 0.64).

The results above reject the hypothesis that on average the control premium is due to overpayment. It is still possible, thus, that this might be true in some countries. In particular, we are concerned that in less developed countries, where there is more uncertainty about the value of a company, the winner's curse is more

severe leading to a higher apparent premium and distorting our international comparisons. While such a behavior is inconsistent with a rational bidding process (Milgrom and Weber, 1982), we still want to ensure it is not present in the data.[10] As a measure of the degree of company-specific information available we use the synchronicity measure developed by Morck, Yeung and Yu (2000). This is a measure of how much stock prices move together. The more they move together, the less company-specific information is revealed. If there is more overpayment in less developed markets, we should observe that the control premium is more negatively correlated with the acquirer's return in country with a high level of synchronicity. In fact, the interaction coefficient is positive and not statistically significant.

A second alternative interpretation that could potentially explain a larger premia in underdeveloped markets is that the buyer has superior information and there is a delay in incorporating new information. On average delays in adjusting will spuriously inflate our estimates of private benefits. To test for this possibility we re-estimated the private benefits using the market price 30 days after the announcement rather than 2 days after. The results (nor reported) are virtually identical. If anything, the average premium in developing countries like Brazil go up rather than down. We also examined the cumulative abnormal returns to shareholders in target firms from 2 days to 30 days after the announcement and tested whether the initial level of private benefits was related to the subsequent cumulative abnormal returns. We found no such effect with an insignificant relationship between control premia and post announcement returns (coefficient= .009, pvalue=.80).

Another alternative interpretation focuses on liquidity differences between developed and less developed markets. Differences in liquidity cannot explain our findings either. While a lack of liquidity reduces the willingness to pay for shares on the exchange and this effect is more pervasive in less developed markets, the lack of liquidity also impacts the price that is paid for large blocks. Large non-controlling blocks generally sell at a discount to the exchange price (Holthausen et al., 1990) and the more so the more illiquid is the market for the underlying stock. Thus, if the control value were zero there would be a bigger discount in less liquid markets for large blocks. Thus liquidity differences suggest that if anything more underdeveloped countries should have smaller block premia, not larger ones.

[10] A rational bidder knows that if he bids his valuation he will overpay, the more so the more uncertainty there is about the fundamental value of the asset. Thus, the more uncertainty there is, the more he will shade his bid.

Finally, we are concerned of a possible distortion due to selective non-disclosure. In fact, one of the criteria we had to impose to obtain our estimates was the observability of the price paid for the controlling block. A worrisome possibility is that in countries with better protection of investors, controlling parties are more fearful to disclose large premia. In such a case, we would estimate lower private benefits in the United States, not because they are indeed lower, but because large premia are less likely to be disclosed.

To check for this possibility we compute the percentage of deals we have to drop because the terms are not disclosed. On average, 33 percent of the deals do not disclose the terms, going from 0 percent in Taiwan and other countries to 70 percent in Austria and 82 percent in the Czech Republic. Contrary to the selective nondisclosure argument, we find that countries with higher premium tend to have a higher percentage of deals that are not disclosed (correlation 0.2, not statistically significant). Similarly, if we use as a proxy of shareholders' protection the antidirector rights index constructed by La Porta et al. (1997), we find (not surprisingly) that in countries that protect shareholders a greater percentage of deals are disclosed. In sum, if selective non disclosure biases our results it biases them in the direction of attenuating the cross country differences rather than amplifying them.

III.6 Are We Really Estimating Private Benefits?

While we can reject these alternative interpretations, what evidence do we have that our estimates indeed capture private benefits of control?

At the anecdotal level, we have papers documenting the pervasiveness of self-dealing transactions in countries like Italy (Zingales, 1994) and the Czech Republic (Glaeser et al., 2000). It is reassuring, thus, that our estimated private benefits for these two countries are very high (respectively 37 percent and 58 percent). It is particularly interesting to stress the difference between Poland and the Czech Republic. Both of them are former socialist countries, with a similar level of GDP per capita. Nevertheless, our estimates are very different (11 percent for Poland, 58 percent for the Czech Republic).

At a more systematic level, if our measures reflect the different ability to extract private benefits in different countries, they should be affected in predictable ways by country-specific institutions that restrict the

ability to extract private benefits. We will explore these implications in section V. One limitation with this approach, however, is that it is difficult to separate specific institutions from a broad institutional context. A more subtle test of whether these estimates really reflect the ability to extract private benefits is whether our estimated private benefits depend not only upon the institutional variables of the country of the company whose control has been acquired, but also on those of the country of the acquiring company (when this is different).[11] In other terms, an acquirer coming form a country with less investor protection is better able to siphon out corporate resources from a subsidiary than a company coming from a country with very rigid rules. This should reflect in a higher willingness to pay and, in a non-perfectly competitive market, in a higher price. Thus, we should observe higher estimated private benefits when the foreign acquirer comes from a country with poor protection of investors.

For this reason in Table VI we re-estimate our basic specification (see Table IV) inserting as an additional explanatory variable the difference between the level of anti-director rights of the country of the acquiring company and that of the target company. As Table VI shows, companies coming from more investor friendly countries pay on average 2.6 percent less for control, and this effect is statistically significant. In the bottom of table VI we present country fixed effects with this control. In the next sections when we incorporate controls we will use all of the controls included in this specification.

The finding is interesting per se within the context of the debate on corporate governance convergence. Coffee (1999) predicts that companies from countries with better protection of investors will end up buying companies from countries with weaker protection. Our result suggests that in the presence of controlling blocks this might not be the case. Companies from countries with better investor protection are more limited in their ability to extract private benefits and thus ceteris paribus are able to bid less for the controlling block. This engenders the risk that controlling blocks may end up in the hands of companies from the countries with the worst rules, not the best ones.

This finding that the owners' identity (as reflected in the home country of the acquiror) is associated with the extent of private benefits also provides one rationale for the approach in many privatizations of not

[11] For example, Doidge et al. (2001) argue that foreign companies list in the United States to precommit themselves to extract less private

simply selling to the highest bidder and for the consistent finding in central and eastern Europe (Djankov and Murrell (2000)) of superior returns for firms sold to foreigners (most from countries with higher levels of anti-director rights than in the transition countries) after controlling for possible selection issues.

Comparing control premia measures

Another check that our estimates measure the value of control comes from comparing them with estimates of the value of control obtained using different methods. The largest set of alternative estimates is provided by Nenova (2000). By using differential voting shares, she estimates the value of control across 18 countries. Table VII (panel A) reports both her numbers and our numbers. In spite of the different method used, there is a remarkable similarity in findings. Our estimates for countries like the United States, Switzerland and Germany are identical, and the overall correlation between our measures is .59 for the raw measure and .55 for the refined measure.[12] There are, however, notable exceptions. Nenova finds that both Brazil and Australia have a ratio of value of control to value of equity equal to 0.23, while we find only 0.02 for Australia and 0.65 for Brazil. What can explain these differences?

One possibility is the sample selection in Nenova sample mentioned in the introduction. Companies are more likely to issue dual class shares when private benefits of control are large (Grossman and Hart (1988), Zingales (1995b)). Hence, a measure of private benefits of control based on the voting premium of companies that issued dual class shares tends to overestimate the value of control. Most importantly, this upward bias is not homogeneous across countries, but it is more severe the fewer the percentage of dual class companies in the population of traded companies in a country. And this percentage varies widely across countries.

The final column in Table VII reports the percentage of dual class firms with prices available by Datastream as a percentage of the total population of Datastream firms in the country in that year. In countries that allow dual class shares, on average only 14 percent of the firms have two classes of shares traded. There is a wide cross-sectional variation: Brazil has 59 percent of such firms, while Australia and the United Kingdom have only 1 percent.

benefits of control.

[12] If we exclude Brazil, an outlier, the correlation increases to .69 using the raw data and .81 using the refined data.

We test the possible effects of the sample selection described above by regressing the difference between Nenova's estimates and our estimates against the percentage of companies with two classes traded. If there exists a bias, we expect Nenova's estimates to exceed ours in countries with few dual class-stocks like Australia and the United Kingdom (i.e., a negative coefficient in the regression). This is indeed what we find. In countries where dual class shares are more rare Nenvova's number significantly exceeds ours. The effect is economically very important. A one standard deviation increase in the percentage of dual class shares leads Nenova's estimates to exceed ours by 22 percentage points.[13] This variable alone explains 76 percent of the difference in raw estimates and 57 percent of the difference in refined estimates.

Overall, these results give confidence that the Barclay and Holderness method to estimates private benefits measures indeed private benefits (and not overpayment) and it does so introducing smaller biases than the alternative method. That the two set of estimates differ in the way predicted by theory is also a strong indication these estimates are indeed measuring the value of private benefits of control.

Having established some degree of confidence in our estimates, we now move to use them in international comparisons.

IV – Effects of Private Benefits on Financial Development

IV.1 Theoretical Predictions

We have shown that the magnitude of private benefits of control varies greatly across countries. We have not shown, however, that larger private benefits are necessarily more inefficient. Can we derive any implication on the effects of larger private benefits of control on the development of financial markets that is independent of their characterization as efficient of inefficient?

The answer is yes. In countries where a controlling party can appropriate a larger share of the value of a company, entrepreneurs will be more reluctant to take their companies public. If they sell a minority position, outside investors will be willing to pay less for it than what it is currently worth it to the entrepreneur, because

[13] Using differential voting shares to estimate the value of control can induce also another bias. When ownership is highly concentrated, the price of voting shares tends to underestimate the value of votes, because control is securely held in the hands of the largest shareholder. There is some weak evidence this might be the case if we use Nenova's (2000) raw estimates. Nenova (2000), however, is aware of this problem and in her regressions she controls for ownership concentration. Consistently, her refined measure seems completely unaffected by this bias.

they factor in the possibility a new acquirer will dilute the value of the company in the future. As a result, entrepreneurs are reluctant to sell (Zingales, 1995b). At the same time, when control value is high they do not want to sell a majority of votes in the market because they will not receive an adequate compensation for it. Atomistic shareholders will pay for the voting rights they expect to receive in a future tender offer. If, as it is likely to be the case, the market for corporate control is not perfectly competitive, atomistic shareholders will receive less in a tender offer than what a controlling shareholder would have obtained in a private negotiation (Zingales, 1995b). Hence, three implications follow:

1) Since fewer companies will list, in countries with high private benefits of control the importance of the equity market relative to GDP should be smaller;

2) Since incumbents are more likely to retain control after they take their company public, in countries with high private benefits of control the percentage of companies widely held should be smaller;

3) Since it is more profitable to sell control in a private negotiation, in countries with high private benefits of control a revenue maximizing Government should prefer to sell control in private transactions rather than in public offerings.

All these predictions are independent of the direct welfare implications of private benefits of control. In fact, they are derived from Zingales (1995b), where private benefits of control have no efficiency consequences, but only distributional ones.

IV.2 Test

In table VIII we test these three predictions using our private benefits measure as an independent variable. We focus on our estimated country fixed effects from table VI. Since our explanatory variable is estimated, OLS estimates are biased and inconsistent. Thus, we also report instrumental variable (IV) estimates, where we use the family of origin of a country's legal system as an instrument for the extent of private benefits. As we show below in table XI, legal origin is highly correlated with our private benefit measure. All of the reported results are robust to using the raw measure of private benefits from table II in place of the estimated country fixed effects.

We begin by focusing on the relation between the size of private benefits and ownership concentration (column 1). As a measure of ownership concentration that is available for almost all of the countries in our dataset we use the percentage of equity controlled by the 3 largest shareholders in the 10 largest non financial firms where the state is not a shareholder (La Porta et al. 1998). To control for other possible factors we insert in all the regressions the log GDP per capita.

As predicted, countries with higher private benefits have more concentrated ownership. A one standard deviation increase in the size of private benefits translates into 6 percent more of the equity held by the largest three shareholders. This simple specification seems to have also a very high explanatory power (R**2 = 0.47).

In column 2 we test the effect of private benefits on the way firms are privatized. Our dependent variable is the percentage of privatizations that took place as a private asset sale, rather than as a share offering from Megginson, Nash, Netter and Poulsen, 2000. Asset sales almost always involve the sale of a majority (or 100 percent) of the shares to a controlling shareholder or group. Share offerings disperse ownership to a greater extent. To control for other factors we include not only the per capita GDP, but also the importance of the equity market, on the basis that governments are more likely to sell shares in a public offerings if the market is more developed.[14]

We find that in countries with large private benefits governments are more likely to divest companies through private sales. A one standard deviation increase in the size of private benefits translates into 35 percent more firms being privatized through private negotiations. These results are consistent with evidence from privatizations in specific countries. In Brazil, for example, government interest in receiving the control premia at the time of privatization led them to weaken existing protections for minority investors so that minority holders of voting shares no longer had the right to an equal offer at the same price as the control block. In Mexico, Lopez-de-Silanes (1997) reports that the price per share for sales that did not involve control were just one quarter of the prices for sales of control blocks, helping to explain the fact that 87 percent of all sales in his sample of Mexican firms involved sales of control.

In Table VIII, panel B we test the link between private benefits and capital market development, beginning with the various aggregate indicators of financial development introduced by LaPorta et al (1997):

number of IPOs/population, the number of listed firms/population, the external market capitalization relative to GDP, and the level of debt/GDP. Private benefits also explain a significant fraction of the cross sectional variation in these measures. Our measure of private benefits is significant in all regressions with the exception of the OLS specification with the number of listed firms, where the single data point of Israel, with an unusually high level of number of firms, reduces our level of significance. All the regressions include log per capita GDP as a regressor, to control for other possible factors.[15] A one standard deviation increase in private benefits translates into a 48 percent decline in the percent of external equity capitalization/GNP.

V - What Curbs Private Benefits of Control?

V.1 Theoretical Predictions

Since the extent of private benefits of control seem to matter for security market development, the question of what curbs them becomes of central importance for any attempt to foster security market development.

The prominent place of legal institutions in the current discussions on the causes of financial development owes much to the influential survey of Shleifer and Vishny (1997) and the subsequent empirical work by LaPorta et al. (1997, 1998,1999). Whereas the traditional law and economics literature suggested that legal institutions were unlikely to influence firm behavior, as sophisticated investors and entrepreneurs could anticipate difficulties and craft localized solutions to these problems (including opting out of national laws), this new law and economics literature redirected attention to national institutions. Echoing a theme found in the new institutional economics, the institution of legal rules is a constraint that can complement markets rather than limit market transactions by affecting the bargaining over competing claims on the wealth of the corporation.

The evidence of systematic differences in legal rules and the correlation between these rules and features of financial development has reinforced belief in the importance of institutions in general and legal institutions in particular. We follow the literature and examine empirical proxies for the three most important

[14] The results are robust to excluding this variable.
[15] Similar results obtain if we follow LaPorta et al 1997 and include GDP growth to capture future growth prospects and log GDP to capture any economies of scale in financial development.

institutional dimensions of legal protections: legal leverage for minority shareholders, information to identify abuse of legal protections, and expectations of enforcement where legal protections have been identified.

Legal institutions

i) *The legal environment.* The ability of a controlling shareholder to appropriate some of the value generated is limited by the possibility of being sued. Thus, a greater ability to sue should translate into smaller private benefits of control (Zingales (1995a)). The same reasoning applies to any legal right attributed to non-controlling shareholders (La Porta et al., 1997). Accordingly, we examine the explanatory power of legal rights that give minority investors leverage over insiders in firms focusing on the so-called anti-director rights index developed by La Porta et al., 1997 and used by Pistor et al., 2000 for the transition countries. We focus our attention on the level of shareholder rights in the country of the target firm. As seen above, we also examine the impact of shareholder rights in the acquiror's country based on the hypothesis that these might also constrain private benefits (Dyck (2000)).

ii) *Disclosure standards*. Disclosure standards regulate the information available to non-controlling shareholders. The more accurate this information is, the more difficult it is for a controlling shareholder to appropriate value without incurring legal penalties or, at least, reputational costs. Thus, measures of quality of disclosure should be negatively correlated with the size of private benefits of control.

iii) *Enforcement* The strength of legal protections depends upon the expectations of speedy and predictable enforcement. Thus, we include as one of our contractual variables a measure of the strength of a country's law and order tradition as measured by the country risk rating agency International Country Risk. This rule of law index is scaled from zero to ten.

Extra legal institutions

We examine the association of legal mechanisms with levels of private benefits but do not limit ourselves to legally-focused institutions. As noted above, the possibility of extracting private benefits is intrinsically related to managerial discretion, a discretion that courts cannot and even do not want to restrict (see

for example the business judgment rule in the United States). As a result, extra-legal institutional may play an important role in constraining private benefits (Dyck (2000)) both in settings with legal protections as well as in settings where legal protections are non existent or not enforced.

The potential constraints imposed by extra-legal institutions have not been prominent in current debates, at least in part because of a lack of empirical examination. We focus our attention on five institutional factors that, at least in theory, have the potential to raise expectations of penalties for activities that produce private benefits for controlling shareholders. Some of these factors that can raise the costs to the controlling shareholder for diverting activities (such as the penalties produced by product market competition and by public opinion pressure) are constraints external to the firm. Other factors (such as the sanctions that can be introduced by moral norms, labor, and the government as tax collector) are more 'internal' to the firm.

iv) *Product market competition.* The degree of product market competition affects the opportunity to appropriate private benefits in two dimensions. First, the more competitive markets are, the more verifiable prices become. When prices are more "objective", it is more difficult for a controlling shareholder to tunnel out resources through manipulated transfer prices without incurring legal and/or reputational costs. Second, in a competitive market the distortions produced by the extraction of private benefits are more likely to jeopardize the survival of the firm. Hence, competition represents a natural constraint to the extraction of private benefits.

The extent of product market competition is based both on industry and on country characteristics. In our regressions we include controls for industry characteristics which we constrain to be constant across countries. The extent of product market competition is also influenced by country level characteristics, particularly government policies regarding entry and competition. We use as our proxy for the extent of product market competition at the national level the response to the survey question, "competition laws prevent unfair competition in your country?" as reported by the World Competitiveness Yearbook for 1996. This variable, which is available for all of our countries, captures cross country differences in the extent to which national policy makers allow for barriers to competition over and above those constraints associated with industry.

v) Public opinion pressure. Controlling shareholders might limit their efforts to divert firm resources not out of

fear of legal sanction but rather out of concern for their reputation. For reputation to reduce diversion, the information about improper behavior must be publicized. For example, shareholders' activist Robert Monks succeeded in initiating some major changes at Sears, not by means of the norms of the corporate code (his proxy fight failed miserably), but through the pressure of public opinion. He paid for a full-page announcement in the Wall Street Journal where he exposed the identities of Sears' directors, labeling them the "non-performing assets" of Sears (Monks and Minnow (1995)). The embarrassment for the directors was so great that they implemented all the changes proposed by Monks. Similarly, recent efforts to stem diversionary practices by the powerful Korean Chaebol have also come not from court cases but through the public identification and dissemination of behavior through the media by shareholder activists. Public humiliation is not only a tool of activists, but is also viewed as an important tool of regulators. In Hong Kong, for example, the main sanction available to securities regulators was not financial penalties but the threat and use of publishing those who violate listing requirements through the press.

Critically, for reputation to work, though, it is necessary to have a "public opinion:, i.e. a combination of an independent press that publicizes the facts and of a large set of educated investors, who read the newspapers and sanction improper behavior (Zingales, 2000). We try to capture this idea with an indicator of newspapers' diffusion, measured as the circulation of daily newspapers normalized by population.

vi) Internal policing through moral norms. Regardless of the reputational cost and/or the legal punishment the appropriation of private benefits trigger, a controlling shareholder might choose not to appropriate value for moral considerations. But what constitutes a measure of the strength of such an internal policeman? Coffee (2001) proposes the violent crime rate as a proxy for these moral norms, noting that this at least captures an important difference between Scandinavian and other countries. Stulz and Williamson (2001) focus on culture as an indicator of norms. They use religion as their proxy for cultural norms and hypothesize that certain religious traditions will be more antagonistic to investor rights, such as the historical antagonism Catholics and Muslims had toward the payment of interest. To test for an impact of moral norms we use both proposed measures: the number of violent crimes reported by the World Competitiveness Yearbook based on Interpol data

for 1993 and Stulz and Williamson's classification of countries by their primary religious orientation.

vii) Labor as monitor. Additional constraints on controlling shareholders might come from the presence of economic entities with a direct interest in firm decisions that could penalize efforts to extract private benefits directly without having to turn to the courts. From this perspective, it is clear that labor has the potential to monitor controlling shareholders and the ability to penalize diversions without resorting to legal sanctions. Labor is privy to inside information on customers and suppliers and can hold up the controlling shareholder by threatening to withhold services and in some cases, through their position on the board of directors. At the same time, it is theoretically ambiguous how labor might act for it does not necessarily have the incentive to constrain private benefits, possibly aligning itself with the controlling shareholder against outside investors and labor's information access might not include critical information that is the source of private benefits. We test for the effect of labor on private benefits using as a cross country measure of the extent of potential labor power the degree of employee protection. This measure is available for all OECD countries.

viii) *Government as monitor through tax enforcement.* Like labor, the government has an economic interest in firm decisions and it can take actions to reduce private benefits without having to turn to the courts. We focus on the role of the government in enforcing corporate tax legislation. Tax authorities and non-controlling shareholders have a common objective: to ascertain the value produced by a company and get a share of it. For example, a principle of corporate taxation for transfer pricing is the use of an arms-length price based on what independent parties in a competitive market would charge. How tax authorities enforce their rules on transfer pricing affects the incentives to reallocate returns through transfer pricing, with strict enforcement reducing the likelihood that a controlling shareholders will use transfer prices to siphon out value at the expense of minority shareholders.[16] Unlike non-controlling shareholders, however, the tax authority does not face any free rider problem in monitoring and enforcing its right. Furthermore, it has the benefit of disciplinary powers that are simply not available to dispersed shareholders. Therefore, better tax enforcement should lead to smaller private benefits of control. As a measure of the effectiveness of the taxation system we use an index developed by the

[16] Tax authorities should be particularly concerned about diversions of revenues from taxed to non-taxed entities, be those entities domestic or foreign.

World Competitiveness Report, which assesses the level of tax compliance. The index goes from 0 to 6 where higher scores indicate higher compliance.

That an effective corporate taxation system might have this positive externality has not been emphasized in the corporate finance literature, or, to our knowledge, in the public finance literature.[17] Any evidence in this direction would be an important element in the debate on the costs and benefits of corporate income taxation, particularly in countries with high private benefits.

V.2 Test

The large panel data set of 412 transactions from 39 countries provides a unique sample to try and identify the main institutional curbs of private benefits of control discussed above. In what follows we describe the empirical proxies used and their effect on the private benefits of control. The definition for all these proxies is reported in Table I. Table IX reports their actual values. In table X we test the impact of each institution in isolation, in Table XI we try to test them one against the other.

We start with the impact of "legal" factors, i.e. factors that directly or indirectly rely on the court enforcement of certain rights. Information disclosure is the prerequisite for any legal action. Thus, we start (column 1) with the quality of the accounting standards, as measured by the CIFAR index. Firms in countries with better accounting standards have lower private benefits of control. This effect is both statistically and economically significant. A one standard deviation increase in accounting standards reduces the value of control by 8.0 percentage points. Together with the other control variables, accounting standards explain 20 percent of the variation in private benefits of control (the firm specific control variables alone explain just 15 percent).

Our second variable (column 2) is the extent of legal protections for minority investors, measured using La Porta et al. (1998) index of anti-director rights. Countries with more anti-director rights have lower private benefits of control. A one standard deviation increase in anti-director rights reduces the value of control by 3.8 percentage points. Together with the firm specific variables, anti-director rights explain 17 percent of the variation in private benefits of control.

[17] For example, Gresik's (2001) recent review of the literature on rationales for and effects of corporate income taxation in the context of transnationals does not mention any spillovers between government actions and agency costs.

Finally, we use the quality of law enforcement, which we measure using the IBR index of the quality of the law enforcement in a country. Countries with better law enforcement have lower private benefits of control. A one standard deviation increase in our law enforcement measure reduces the value of control by 6.8 percentage points. Together with the firm specific variables, rule of law explains 24 percent of the variation in private benefits of control.

In sum, we find that legal institutions are strongly associated with lower levels of private benefits. When we combine the two legal variables that are available for our full sample in one regression (Table XI, column 1), both are statistically significant and the R-squared is 20 percent.

We also test the explanatory power provided by extra-legal institutions, which are suggested by a functional rather than an institutional perspective. Here we focus on crude country-wide measures of product market competition, scope of reputational penalties, moral norms, employee protections, and diligence of tax authorities.

Table X, columns 4-9, explores the explanatory power of these factors one at a time. In column 4 we test the effect of competition. After having controlled for industry type, we find that countries with more competitive product markets, at least as measured by this survey of the World Competitiveness Report, have lower private benefits of control. A one standard deviation increase in our measure of competition reduces the value of control by 5.5 percentage points. Together with the firm specific variables, competition explains 24 percent of the variation in private benefits of control.

In column 5 of table X we explore the idea that public opinion pressure might curb the amount of private benefits extracted. We measure the importance of this pressure with the diffusion of newspapers (number of copies sold per 100,000 inhabitants). Countries where newspapers are more diffused have lower private benefits of control. A one standard deviation increase in newspapers' diffusion reduces the value of control by 5.8 percentage points. Together with the firm specific variables, newspapers' diffusion explains 25 percent of the variation in private benefits of control. Columns 4 and 5 suggest that institutions external to the firm are associated with private benefits.

In column 6 and 7 we test the idea that countries with higher moral norms have lower private benefits.

Consistent with Coffee's prediction, countries with worse norms as proxied by higher violent crime rate have higher private benefits of control, but the effect is economically and statistically insignificant. To investigate moral norms as proxied by primary religion we introduce indicator variables for the four main religions (Buddhist, Catholic, Muslim and Protestant). As a country religion we use the dominant one (see Stulz and Williamson, 2001). We find that Catholic countries have significantly higher private benefits, and Protestant ones significantly lower (estimate not reported). The effect of the Muslim and Buddhist religion is not insignificant.

In columns 8 and 9 we test whether the strength of other entities that have a direct economic interest in firm decision making is associated with lower levels of private benefits. In column 8 we examine the impact of labor as a monitor of private benefits. As an index of potential labor strength we use both an unweighted and a weighted (not reported) index of employee protections based on average indictors on regular contracts and short term contracts from OECD data compiled in Pagano and Volpin (2000). The restriction to OECD countries unfortunately limits our number of countries and observations but is perhaps a purer test of the contention that labor can work as monitors, since this literature has focused on organized labor in developed economies. Inconsistent with the hypothesis that labor is an effective monitor, and consistent with Pagano and Volpin's counter contention that entrepreneurs and workers will align themselves against the interests of minority investors, we find that increased labor power is associated with higher private benefits, although this result is not statistically significant (p-value of 0.34 for employee protections, 0.22 for weighted employee protections).

In column 9 we investigate the possibility that a government interested in enforcing tax rules can reduce private benefits. The column shows that in countries with a higher degree of tax compliance, as measured by the World Competitiveness Report, have lower private benefits of control. A one standard deviation increase in our measure of tax compliance reduces the value of control by 10.7 percentage points, a significant amount. Together with the firm specific variables, tax compliance explains 22 percent of the variation in private benefits of control.

Tax compliance is an equilibrium outcome, affected both by tax enforcement and by the attitude of citizens toward cheating on their taxes. To try to identify the impact of tax enforcement in an unreported

regression we include a measure of willingness to cheat on taxes as measured in the World Value Survey. In this survey people are asked to rate from 1 to 10 the statement "cheating on taxes if you have a chance is ….", where 1 is never justifiable and 10 is always justifiable. We find this variable to be insignificant, and the coefficient on tax compliance to remain significant, suggesting the effect of tax compliance comes from tax enforcement and not from differences in moral values across countries.

In Table XI (column 2) we combine the four extra legal institutions that individually had a statistically significant effect. All four variables retain the predicted sign, but the magnitudes of their coefficients drops and only tax compliance and newspaper diffusion remain statistically significant at the 5% level. Together these four variables are able to explain 23 percent of the variation in private benefits.

The evidence, thus far, is consistent with both the legal and the extra legal institutions playing a role in constraining private benefits. In fact, a crude R-squared test suggests they have roughly the same explanatory power. Can we distinguish which one is more important?

The multicollinearity across our institutional variables presented in panel B of Table IX constrains our ability to disentangle these institutional variables in any definitive way. Nevertheless, we think it is interesting to try and put all these variables in one regression and see which ones turn out to be more important. This is what we do in column 3 of Table XI. When all the institutional variables we found to be significant in the previous regressions are simultaneously included, only newspapers' diffusion and tax compliance remain significant.

The paucity of observations and the high degree of multicollinearity caution us against drawing any strong conclusion from this comparison. We can say, however, that the results are inconsistent with an exclusive focus on legal variables as institutional curbs to private benefits.

V.3 The effect of legal families

Since LLSV (1998) seminal paper, the origin of a country's legal system has played an important role in all the institutional explanations of cross-country differences. LLSV (1998) claim that legal traditions differ in their respect for property rights and, hence, in their ability to protect minority shareholders. We should have already accounted for this effect by inserting the LLSV index of anti-director rights. Nevertheless, it is possible that the origin of a country's legal system is a better indicator of the degree of protection of outside investors

than the anti-director index. For this reason, we repeat some of the previous estimates substituting the country of origin of the legal system for the anti-director rights variable.

As table XII panel A shows, the average level of private benefits differ substantially across different legal families. Private benefits are highest in former communist countries (34 percent), then countries with a French code (21 percent), and countries with a German, English, and Scandinavian code seem to have the lowest level of private benefits (11, 6 and 4 percent). Panel B, column 1, shows that the levels of private benefits are significantly lower in countries with English, German and Scandinavian legal origins than in French legal origin countries. Thus, the distinction is not in terms of civil law versus common law, but it is more complex.

In Table XII, panel B we report how these results are changed after we control for the most significant extra legal institutions (diffusion of readership and tax enforcement). Any distinction between English-based legal systems and the others disappear. If anything, common law countries have *higher* (not lower) private benefits of control once these extra legal institutions are taken into consideration, but this effect it is not statistically significant. Only Scandinavian countries have lower private benefits of control even after controlling for extra legal institutions.

Overall, these results confirm the previous ones: extra legal institutions are very important and they should be controlled for in any cross-country analysis. Controlling for them substantially alters the explanatory power of legal institutions.

VI – Conclusions

In this paper we apply the approach pioneered by Barclay and Holderness (1989) to measure the magnitude of private benefits of control across countries. That we obtain estimates very consistent with previous studies, using different approaches, indicates that the extraction of private benefits is a very real phenomenon that can be consistently measured.

We then use these estimates to test several theoretical predictions from the corporate finance literature on the negative effects that large private benefits have on financial development. In countries where private benefits of control are large, ownership is more concentrated, privatizations are less likely to take place as public

offerings, and capital markets are less developed by several measures. These results vindicate the emphasis that, since Shleifer and Vishny (1997), corporate finance research has put on the importance of protecting outside investors against expropriation by insiders. They also suggest the importance of gaining a better understanding of what are the institutions that help curb private benefits.

We find that many institutional variables, taken in isolation, seem to be associated with a lower level of private benefits of control: better accounting standards, better legal protection of minority shareholders, better law enforcement, more intense product market competition, a high level of diffusion of the press, a high rate of tax compliance. A crude attempt to disentangle among them points to a high level of diffusion of the press and a high rate of tax compliance as the most important institutional factors.

The role of tax enforcement in reducing private benefits, and thus indirectly enhancing financial development, is probably the most important new fact that emerges from our analysis. Improving the corporate taxation system is well within the range of feasible reforms. If this is indeed a primary mechanism by which private benefits of control can be curbed and financial markets fostered, the benefits of financial development might be within reach for many more countries.

The paper also suggests some avenues for future research. The empirical association between extra legal institutions and the extent of private benefits calls for further investigation including studies of institutional reforms that would help to identify the effect of specific institutions from the broader institutional context. Recognition of the extent of private benefits and their association with security market development also suggests scope for further analysis of whether private benefits are socially costly.

Data appendix

1. Steps to identify transactions

We used the following approach to implement the first criterium that a transaction be a control transaction between unrelated parties: (1) The transaction had to be identified in the SDC database and through the transaction the acquirer had to move from a shareholding position of less than 20% to shareholding of more than 20% shareholding.[18] (2) News stories surrounding the transaction had to confirm a transfer of control from the seller to the acquirer, with news stories identified by using the company name and transaction date in Nexis-Lexis and Dow Jones Interactive search engines, often with the use of both English and foreign language media. We impose the lower bound of 20 percent to ensure that we have identified transactions where the acquirer is likely to have assembled voting control. This bound is significantly higher than the 5 percent used by Barclay and Holderness (1989). The 20 percent cutoff reflects our belief that greater ownership is needed to assemble control over corporations outside of the United States and is the criteria used in other cross country studies.

Illustrative of the steps we took to identify control transactions is our exclusion of related party transactions. With related parties it is questionable whether control is transferred and the price of the deal is unlikely to reflect the value of control. Systematically, we excluded transactions where SDC reported that the acquirer involved management, as management already has control rights prior to sale. Using qualitative data we identified further related party transactions excluding transfers of shares between subsidiaries and parents of the same company and other deals that don't transfer control. For example, we excluded the sale of 36% of the shares of Shin Corp in Thailand in September 2000. News stories reported that "Telecoms Tycoon turned politician Thaksin Shinawatra and his wife have sold their 35.4 per cent stake in their flagship Shin Corporation at a deep discount, in what appears to be an attempt to comply with the laws on ministers' ownership of companies. The stake was sold to their son and relatives at just 10 baht a share, less than 6 percent of the stocks closing price yesterday of 177 baht…. Analysts said the move was purely political and would have no impact on shareholders or on the company."[19]

To implement the second criterium, that a control price be available and reflect the value of control, we restricted our attention to SDC transactions that met three additional criteria:

(1) There had to be data in SDC to identify a control price. In many cases SDC reports a price per share in a separate data field where they value cash offers at face value and offers of shares at the exchange price on the day prior to the announcement of the transaction. In other instances, the price per share is not reported in the data field but can be derived by combining information in available data fields and information from other data sources on the number of shares outstanding. For example, SDC would report the total price paid and the percentage of shares sold and we would construct an estimate of the per share price involved in the offer by collecting information on the number of shares outstanding at the time of the transaction. For many transactions, SDC reported that no terms were disclosed or that the reported price was only one component of the compensation. We are unable to use such transactions.

(2) The form of sale had to involve purchases where assets used to establish a per share sale price include securities that could be priced objectively (we exclude transactions that involve warrants, convertible bonds, notes, liabilities, debt-equity swaps, etc.), and where the terms of sale were not determined by exercising an option or included an option to buy additional shares in addition to the shares purchased.

(3) The synopsis field and news stories had to confirm the price per share and to ensure that the reported price was not misleading. We excluded observations where news stories identified other considerations, and adjusted the price per share from the SDC reported price if two news stories reported a price that deviated from the SDC price.

To implement the third criterium that an exchange price be available we begin by restricting our attention to those transactions where the company whose share are being acquired is covered by Datastream international, the data provider with the most extensive coverage of international firms.[20] We also are interested in identifying the exchange price after the market is aware of the purchase of shares by the new controlling shareholder. A traditional approach in the finance literature of focusing on the share price on the day of announcement is not warranted with our data base. In many cases the transfer of control leads to a suspension of trading of the company shares either because there is a need for time for the information about the control transfer to be communicated broadly or there are limits to movement of the exchange price per day. While the suspension is of limited duration in established markets like the United States and the United Kingdom, the suspension can last for a day or more in other settings. Consequently, we use as a standard approach the control price two days after announcement. Where news stories indicated a longer delay we used the first date after restrictions on

[18] For Australia and Canada we used a 15 per cent cutoff due to the presence of takeover rules for stakes exceeding 20 percent.

[19] "Thaksin, wife sell entire stake in flagship," Harish Mehta, Business Times Singapore, September 7, 2000.

[20] We attempted to access additional information sources for price information for local stocks not covered during our time period by Datastream through direct contacts with country stock exchanges and through appealing to news reports that often reported share price information for large local companies. These efforts produced 26 additional observations.

trading or pricing of securities. This produced modifications in 17 cases where we use a later date for all of our calculations.

2. The special case of dispersions of control blocks

In 17 transactions we identify through reading news stories that the controlling block is not sold intact but rather sold to a financial intermediary that then sells the block to a variety of institutional investors. We elected to include these deals in our data set. In the Barclay and Holderness (1989) dataset such transactions were excluded by construction of their sample, but as they argued, such transactions should be included if a private benefit measure is to reflect the general benefits and costs of control. Such transactions are only likely if there is a limited benefit to control of enterprises and costs to control. Our dataset includes 9 transactions from the United Kingdom, 3 from Germany, and one from Finland, Japan, Norway, New Zealand, and Taiwan. Our results are robust to the exclusion of these transactions, with small increases in our raw measures of private benefits for the United Kingdom (from 1.6 to 2.4 percent), Germany (from 9.5 to 11.8 percent) and New Zealand (2.6 to 3.6 percent).

3. The special case of companies with dual class shares

We identify all transactions that involve firms with multiple classes of shares. When this is the case we measure the control premium for the shares with voting power relative to the shares that lack voting power, where Datastream provides price information for both classes. For example, we have 11 observations from Brazil that involve firms with dual class shares and Datastream has price series for both classes for 10 of these 11 observations. In Brazil, the principle difference between the two classes is the voting right with largely equal rights to cash flow. Our dataset includes 38 dual class firms altogether, including companies from canada, denmark, finland, italy, germany mexico, norway, sweden, and USA.

4. Biases from not reporting terms of sale

We made some steps to investigate this bias. When the SDC field reported other considerations we made efforts using stories from local media to see if subsequent to the announcement the other considerations became known. For almost all cases we were unsuccessful. However, for Malaysia, a country with an active business press, we were able to identify additional information. For the year 1995 and 1996 we identified all stories regardless of whether SDC included a transaction price or not. Using this technique we identified 9 transactions not identified in our original sample and we were able to identify prices reported in the local press for 8 of these transactions. Comparing the estimated private benefits from these transactions and from our reported transactions is revealing. The average control premia is similar identical between the initial sample used and this new SDC sample with unreported prices with a control premia as a percentage of equity of 6.9 % for our core sample and 4.5% for our sample of ‘unreported prices’.

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Table I

Description of Variables

Variable	Description	Source
Block premia as a percentage of the value of equity	The block premia is computed taking the difference between the price per share paid for the control block and the exchange price two days after the announcement of the control transaction, dividing it by the exchange price two days after the announcement and multiplying the ratio by the proportion of cash flow rights represented in the controlling block.	Securities Data Corporation, Datastream International, 20-Fs, Company annual reports, Lexis-nexis, Dow-Jones interactive, various country sources including ISI Emerging markets and country company yearbooks.
The change in security value	The difference between the security value of the buyer (market price at t+2) and of the seller (market price at t-30) normalized by the market price at t+2. We subtract from this amount the percentage difference in the level of the market index over the same time period (between date t+2 and t-30 normalized by the level of the index at date t+2).	Datastream International.
Majority block	A dummy variable that takes the value 1 if the control block includes 50% of all shares or 50% of all voting shares.	Securities Data Corporation, 20-Fs, Company annual reports, Lexis-nexis, Dow-Jones interactive, various country sources including ISI Emerging markets and country company yearbooks.
Another large shareholder	A dummy variable that takes the value 1 if there is another shareholder with a stake in excess of 20 percent after the block sale.	Securities Data Corporation, Company annual reports, Lexis-nexis, Dow-Jones interactive, various country sources including ISI Emerging markets and country company yearbooks.
Financial distress	A dummy variable that takes the value 1 if earnings per share in the target are zero or negative in the year of the block trade or the year preceding the block trade.	Datastream International.
Seller identity	Dummy variables to identify seller identity. Includes dummies for individual seller, the company itself (through new share issues), a corporate entity, or unknown. A corporate entity is the most prevalent category and is the excluded category.	Securities Data Corporation, Company annual reports, Lexis-nexis, Dow-Jones interactive, various country sources including ISI Emerging markets and country company yearbooks.
Foreign acquirer	A dummy variable that takes the value 1 if the acquirer is from a different country than the target. Where acquirer is unknown assume acquirer is from same country as target.	Securities Data Corporation.
Acquirer identity	Dummy variables to identify if the acquirer is a public company, subsidiary, the government, or a private company. A public company is the most prevalent group and is the excluded category.	Securities Data Corporation.
Industry type	Dummy variables that indicate the acquired companies industrial type (2 digit SIC). Manufacturing is the most prevalent group and is the excluded category. Agriculture, forestry, & fishing (01-09) Mining (10-14) Construction (15-17) Manufacturing (20-39) Transportation & pub. utilities (40-49) Wholesale trade (50-51) Retail trade (52-59) Finance, insurance, & real estate (60-67) Services (70-89)	Securities Data Corporation, Global Access.

Tangibility of assets	The median value of the percentage of total assets that are fixed for US firms in the same 3 digit SIC code as the acquired firm.	Securities Data Corporation, Standard and Poors Research Insight (compustat)
Stock market synchronicity	As a measure of valuation uncertainty we use the average R^2 of firm-level regressions of bi-weekly stock returns on local and U.S. market indexes in each country in 1995. Returns include dividends and are trimmed at 25%. Higher levels indicate that stocks are more likely to move together.	Morck and Yeung and Yu(2000).
Control premia based on voting/ non-voting shares	"Control benefits based on a sample of 661dual-class firms in 18 countries using data for 1997. Control benefits are extracted from the total value of the votes in the control block, based on a baseline control contest model in the case of a dual class firm." Nenova (2000)	Nenova (2000)
Log gdp per capita	Average log gdp per capita 1970-1995.	World Bank.
Ownership concentration	"The average percentage of common shares owned by the three largest shareholders in the 10 largest nonfinancial, privately owned domestic firms in a given country. A firm is considered privately owned if the state is not a known shareholder in it." La Porta, Lopez-de-Silanes, Shleifer, Vishny (1998)	La Porta, Lopez-de-Silanes, Shleifer, Vishny (1998), derived from: Moodys International, CIFAR, EXTEL, Worldscope, 20-F's, Price-Waterhouse, and various country sources
Initial public offerings/ population	"Ratio of the number of initial public offerings of equity in a given country to its population (in millions) for the period 1995:7 – 1996:6." La Porta, Lopez-de-Silanes, Shleifer, Vishny (1997)	La Porta, Lopez-de-Silanes, Shleifer, Vishny (1997), derived from: Securities Data Corporation, AsiaMoney, LatinFinance, GT Guide to World Equity Markets, and World Development Report, 1996.
Number of listed firms/ population	"Ratio of the number of domestic firms listed in a given country to its population (in millions) in 1994." La Porta, Lopez-de-Silanes, Shleifer, Vishny (1997)	La Porta, Lopez-de-Silanes, Shleifer, Vishny (1997) derived from: Emerging Market Factbook and World Development Report, 1996.
External market capitalization/ GNP	"The ratio of the stock market capitalization held by minorities to gross national product for 1994. The stock market capitalization held by minorities is computed as the product of the aggregate stock market capitalization and the average percentage of common shares not owned by the top three shareholders in the ten largest non-financial, privately owned domestic firms in a given country. A firm is considered privately owned if the State is not a known shareholder in it. " La Porta, Lopez-de-Silanes, Shleifer, Vishny (1997)	La Porta, Lopez-de-Silanes, Shleifer, Vishny (1997), derived from Moodys International, CIFAR, EXTEL, Worldscope, 20-F's, Price-Waterhouse, and various country sources
Takeover laws	A dummy variable that takes the value 1 if the transaction takes place in the presence of a legal requirement to make a mandatory offer if the shareholding after acquisition exceeds a threshold, yet the transaction lies below the threshold. Data presented in Appendix table 1.	ISSA Handbook, 6th and 7th editions, EIU country commerce guides, exchange web sites, country company handbooks.
Accounting standards	"Index created by examining and rating companies' 1990 annual reports on their inclusion or omission of 90 items. These items fall into seven categories (general information, income statements, balance sheets, funds flow statement, accounting standards, stock data, and special items). A minimum of three companies in each country were studied. The companies represent a cross section of various industry groups; industrial companies represented 70 percent, and financial companies represented the remaining 30 percent." La Porta, Lopez-de-Silanes, Shleifer, Vishny (1998)	La Porta, Lopez-de-Silanes, Shleifer, Vishny (1998) derived from: International accounting and auditing trends, Center for International Financial Analysis and Research

Anti-director rights	"An index aggregating shareholder rights formed by adding 1 when (1) the country allows shareholders to mail their proxy vote to the firm, (2) shareholders are not required to deposit their shares prior to the general shareholder's meeting, (3) cumulative voting or proportional representation of minorities in the board of directors is allowed, (4) an oppressed minorities mechanism is in place, (5) the minimum percentage of share capital that entitles a shareholder to call for an extraordinary shareholder's meeting is less than or equal to 10 percent (the sample median), or (6) shareholders have preemptive rights that can be waived only by a shareholders' vote. The index ranges from zero to six." La Porta, Lopez-de-Silanes, Shleifer, Vishny (1998)	La Porta, Lopez-de-Silanes, Shleifer, Vishny (1998) based on company law or commercial code. Pistor, Raiser and Gelfer (2000) for Czech Republic and Poland.
Rule of law	"Assessment of the law and order tradition in the country produced by the country risk rating agency International Country Risk (ICR). Average of the months of April and October of the monthly index between 1982 and 1995. Scale from zero to 10, with lower scores for less tradition for law and order (we changed the scale from its original range going from zero to six)." La Porta, Lopez-de-Silanes, Shleifer, Vishny (1998)	La Porta, Lopez-de-Silanes, Shleifer, Vishny (1998), derived from: International Country Risk guide. Pistor, Raiser and Gelfer (2000) for Czech Republic and Poland.
Competition laws	Response to survey question, "competition laws prevent unfair competition in your country," Higher scores suggest agreement that competition laws are effective.	World Competitiveness Yearbook, 1996.
Newspaper circulation/ population	Circulation of daily newspapers/population.	UNESCO Statistical yearbook 1996, as reported in World Competitiveness Report, For Taiwan based on Editors and Publishers' Association Year Book and AC Nielsen, Hong Kong, as reported in "Asian Top Media – Taiwan" www.business.vu.edu
Violent crime	This is a proxy for moral norms suggested by Coffee (2001). It is the reported number of murders, violent crimes or armed robberies per 100,000 population.	Interpol and country data for 1993 as reported in World Competitiveness Yearbook, 1995.
Catholic	This is another proxy for moral norms suggested by Stulz and Williamson (2001). The indicator variable takes the value 1 if the country's primary religion is catholic.	2000 CIA World Factbook as reported in Stulz and Williamson (2001).
Labor power	We use as an index of labor power the extent of statutory employee protections based on the average of indicators on regular contracts (procedural inconveniences, notice and severance pay for no-fault-dismissals, difficulty of dismissal) and short term contract (fixed-term and temporary) as derived in Pagano and Volpin (2000). An alternate index is the weighted average of indicators on regular contracts, short-term contract and collective dismissals as derived by Pagano and Volpin (2000)..	The index is from Pagano and Volpin (2000) based on data from OECD 1999.
Tax compliance	"Assessment of the level of tax compliance. Scale from 0 to 6 where higher scores indicate higher compliance. Data is for 1995." La Porta et al. 1999.	The Global Competitiveness Report 1996 as reported in La Porta et al. 1999.
Cheating on taxes	Response to survey question "cheating on taxes if you have a chance is justified." Scaled from 1-10 where 1 is never justified and 10 is always justified.	World Values Survey, 1996.
Legal origin	Identifies the legal origin of the company law or commercial code of each country. Categories include English common law, French commercial code, German commercial code, Scandinavian civil law, and former Soviet bloc country.	La Porta, Lopez-de-Silanes, Shleifer, Vishny (1998), derived from Reynolds and Flores (1989)

Table II

Block Premium as Percent of Firm Equity

This table presents descriptive statistics by country on the block premia in the 412 control block transactions we study. The block premia is computed taking the difference between the price per share paid for the control block and the exchange price two days after the announcement of the control transaction, dividing it by the exchange price two days after the announcement and multiplying the ratio by the proportion of cash flow rights represented in the controlling block.

Country	mean	median	standard deviation	minimum	maximum	Number of observations	Number of positive observations
Argentina	0.27	0.12	0.26	0.05	0.66	5	5
Australia	0.02	0.01	0.04	-0.03	0.11	13	9
Austria	0.38	0.38	0.19	0.25	0.52	2	2
Brazil	0.65	0.49	0.83	0.06	2.99	11	11
Canada	0.01	0.01	0.04	-0.02	0.06	4	2
Chile	0.15	0.12	0.18	-0.08	0.51	9	8
Colombia	0.27	0.15	0.34	0.06	0.87	5	5
Czech Republic	0.58	0.35	0.80	0.01	2.17	6	6
Denmark	0.08	0.04	0.11	-0.01	0.26	5	3
Egypt	0.04	0.04	0.05	0.01	0.07	2	2
Finland	0.02	0.01	0.06	-0.07	0.13	14	9
France	0.02	0.01	0.10	-0.10	0.17	5	3
Germany	0.10	0.10	0.13	-0.24	0.32	18	15
Hong Kong	0.01	0.03	0.05	-0.12	0.05	9	7
Indonesia	0.07	0.07	0.03	0.05	0.09	2	2
Israel	0.27	0.21	0.32	-0.01	0.89	9	8
Italy	0.37	0.16	0.57	-0.09	1.64	8	7
Japan	-0.04	-0.01	0.09	-0.34	0.09	21	5
Malaysia	0.07	0.05	0.10	-0.08	0.39	41	31
Mexico	0.34	0.47	0.35	-0.04	0.77	5	4
Netherlands	0.02	0.03	0.05	-0.07	0.06	5	4
New Zealand	0.03	0.03	0.09	-0.17	0.18	19	14
Norway	0.01	0.01	0.05	-0.05	0.13	14	9
Peru	0.14	0.17	0.11	0.03	0.23	3	3
Phillipines	0.13	0.08	0.32	-0.40	0.82	15	11
Poland	0.11	0.08	0.11	0.02	0.28	5	5
Portugal	0.20	0.20	0.14	0.11	0.30	2	2
Singapore	0.03	0.03	0.03	-0.01	0.06	4	3
South Africa	0.02	0.00	0.03	0.00	0.07	4	2
South Korea	0.16	0.17	0.07	0.04	0.22	6	6
Spain	0.04	0.02	0.06	-0.03	0.13	5	4
Sweden	0.06	0.02	0.08	-0.01	0.22	13	12
Switzerland	0.06	0.07	0.04	0.01	0.15	8	8
Taiwan	0.00	0.00	0.01	-0.01	0.00	3	2
Thailand	0.12	0.07	0.19	-0.08	0.64	12	11
Turkey	0.30	0.09	0.55	-0.03	1.41	6	5
United Kingdom	0.02	0.01	0.05	-0.06	0.17	43	23
United States	0.02	0.02	0.10	-0.20	0.40	47	28
Venezuela	0.27	0.28	0.21	0.04	0.47	4	4
average/number	**0.14**	**0.11**	**0.18**	**-0.04**	**0.48**	**412**	**300**

Table III

Transaction Characteristics

This table presents the summary statistics of the specific characteristics of all the 412 transactions analyzed in this paper. Variable definitions can be found in Table I.

Variable	Number of observations	Mean	Std. Dev.	Min	Max
The difference between the security value of the buyer (market price at t+2) and of the seller (market price at t-30) normalized by the market price at t+2.	412	0.06	0.24	-1.84	0.90
Buyers proportion of change in security value.	412	0.02	0.09	-0.43	0.40
Initial shareholding as a percent of total shares	412	1.31	3.72	0.00	20.00
Size of control block as a percent of total shares	412	37.71	17.51	6.00	90.00
Fixed assets as a percentage of total assets (US 3 digit SIC)	412	0.29	0.23	0.00	0.77
Indicator Variables					
Transactions with blocks greater than 20%	412	0.27			
Transactions where another large shareholder	412	0.16			
Financial distress in target in year of transaction (EPS<=0)	412	0.26			
Financial distress in target in year before transaction (EPS<=0)	412	0.22			
Domestic acquirer	412	0.62			
Control block created by issuing new shares	412	0.16			
Agriculture, forestry, & fishing (SIC 01-09)	412	0.05			
Mining (SIC 10-14)	412	0.04			
Construction (SIC 15-17)	412	0.01			
Manufacturing (SIC 20-39)	412	0.39			
Transportation & pub. Utilities (SIC 40-49)	412	0.09			
Wholesale trade (SIC 50-51)	412	0.03			
Retail trade (SIC 52-59)	412	0.06			
Finance, insurance, & real estate (SIC 60-67)	412	0.23			
Services (SIC 70-89)	412	0.10			
Seller an individual (news stories)	412	0.18			
Seller government (news stories)	412	0.03			
Seller unidentified (news stories)	412	0.08			
Seller public company (news stories)	412	0.54			
Acquiror public company (SDC)	412	0.42			
Acquiror subsidiary (SDC)	412	0.13			
Acquiror private (SDC)	412	0.40			
Acquiror government (SDC)	412	0.01			
Acquiror unknown (SDC)	412	0.03			

Table IV

Estimated Block Premia by Country

The dependent variable is the block premia as a percent of firm equity. Each regression includes country fixed effects. In addition, in column (2) we introduce the buyer's proportion of the difference in security value between the buyer and seller. In column (3) we introduce several deal characteristics: whether it is a majority block, whether there is another large shareholders, whether the firm is in financial distress, whether the block was created by issuing new shares, and whether the buyer is foreigner. In column (4) we introduce several industry and seller/buyer characteristics: identity of the buyer (individual, government, subsidiary, dispersed), identity of the seller (individual, government, unknown), 2-SIC code industry dummies, and the proportion of fixed to total assets. Definitions for each of the variables can be found in Table I. All regressions are estimated by OLS. Robust standard errors are in parentheses.

Independent Variables	Dependent Variable: Block premium							
	(1)		(2)		(3)		(4)	
Buyer's proportion of change in security value			-0.368*	(0.211)	-0.356*	(0.211)	-0.353*	(0.210)
Stake greater than 50%					0.096***	(0.037)	0.096**	(0.038)
Another large shareholder					0.043	(0.042)	0.024	(0.039)
Financial distress in selling firm					-0.055**	(0.027)	-0.047*	(0.027)
Sold through new share issue					0.036	(0.053)	0.027	(0.054)
Buyer is foreign					0.064*	(0.033)	0.060*	(0.034)
Buyer individual or private							-0.035	(0.026)
Buyer government							-0.010	(0.043)
Buyer subsidiary							0.000	(0.043)
Buyer dispersed or unknown							-0.038	(0.041)
Seller Individual							0.014	(0.029)
Seller government							0.000	(0.102)
Seller unknown							0.019	(0.030)
Fixed assets as percent of total							-0.087	(0.058)
Industry-Agriculture, Forestry, Fishing							-0.023	(0.049)
Industry-Mining							-0.066	(0.062)
Industry-Construction							-0.030	(0.041)
Industry- Transportation & utilities							0.057	(0.030)
Industry-Wholesale Trade							0.048*	(0.038)
Industry- Retail Trade							-0.042	(0.052)
Industry-Finance, Insurance, Real Est.							0.061	(0.043)
Industry-Services							-0.013	(0.035)
Country fixed effects								
Argentina	0.268**	(0.111)	0.268**	(0.112)	0.162	(0.129)	0.196	(0.123)
Australia	0.019	(0.012)	0.028*	(0.017)	-0.007	(0.037)	0.041	(0.052)
Austria	0.383***	(0.099)	0.363***	(0.081)	0.315***	(0.052)	0.306***	(0.049)
Brazil	0.650***	(0.251)	0.653***	(0.248)	0.596***	(0.224)	0.637***	(0.240)
Canada	0.013	(0.017)	0.017*	(0.009)	-0.055	(0.054)	-0.046	(0.072)
Chile	0.147**	(0.058)	0.182***	(0.061)	0.123**	(0.056)	0.135**	(0.061)
Colombia	0.273*	(0.141)	0.274**	(0.128)	0.177	(0.139)	0.214	(0.135)
Czech Republic	0.578*	(0.312)	0.602*	(0.320)	0.466	(0.297)	0.545*	(0.324)
Denmark	0.077	(0.048)	0.076*	(0.045)	0.030	(0.048)	0.023	(0.068)
Egypt	0.038	(0.024)	0.035**	(0.014)	-0.077	(0.050)	-0.009	(0.062)
Finland	0.025	(0.016)	0.028	(0.018)	-0.014	(0.026)	-0.013	(0.035)
France	0.017	(0.042)	0.032	(0.040)	0.023	(0.044)	0.047	(0.061)
Germany	0.095***	(0.032)	0.093***	(0.031)	-0.018	(0.050)	0.010	(0.057)
Hong Kong	0.007	(0.017)	0.029	(0.019)	0.034	(0.027)	0.033	(0.045)
Indonesia	0.072***	(0.017)	0.029	(0.025)	-0.039	(0.039)	0.029	(0.043)
Israel	0.270**	(0.107)	0.285**	(0.113)	0.234**	(0.108)	0.253**	(0.114)
Italy	0.369*	(0.199)	0.378*	(0.200)	0.317*	(0.191)	0.299	(0.192)
Japan	-0.043**	(0.021)	-0.041**	(0.020)	-0.075*	(0.043)	-0.049	(0.051)
Malaysia	0.071***	(0.017)	0.070***	(0.014)	0.064***	(0.017)	0.089***	(0.031)
Mexico	0.345**	(0.146)	0.384**	(0.150)	0.287**	(0.145)	0.303**	(0.145)
Netherlands	0.016	(0.020)	-0.034	(0.048)	-0.070	(0.070)	-0.038	(0.062)
New Zealand	0.026	(0.020)	0.043*	(0.023)	-0.028	(0.037)	0.016	(0.040)
Norway	0.010	(0.012)	0.016	(0.017)	0.001	(0.024)	0.035	(0.040)
Peru	0.142***	(0.053)	0.120	(0.076)	0.068	(0.081)	0.064	(0.083)
Phillipines	0.129	(0.083)	0.171**	(0.084)	0.121	(0.080)	0.141*	(0.077)
Poland	0.111**	(0.046)	0.119***	(0.036)	-0.007	(0.068)	0.022	(0.073)
Portugal	0.203***	(0.073)	0.216***	(0.075)	0.164***	(0.049)	0.194***	(0.054)
Singapore	0.030*	(0.016)	0.027	(0.019)	0.025	(0.034)	0.036	(0.066)
South Africa	0.017	(0.015)	0.036*	(0.019)	-0.040	(0.058)	0.000	(0.065)
South Korea	0.157***	(0.027)	0.145***	(0.036)	0.081	(0.069)	0.076	(0.086)
Spain	0.041	(0.027)	0.050*	(0.026)	0.025	(0.042)	0.047	(0.057)
Sweden	0.064***	(0.023)	0.076***	(0.025)	0.025	(0.042)	0.036	(0.049)
Switzerland	0.063***	(0.015)	0.060***	(0.016)	-0.069	(0.053)	-0.070	(0.070)
Taiwan	-0.004	(0.004)	-0.011**	(0.005)	-0.047	(0.038)	-0.049	(0.072)
Thailand	0.125**	(0.054)	0.143**	(0.057)	0.075	(0.079)	0.120	(0.082)
Turkey	0.305	(0.214)	0.304	(0.196)	0.204	(0.205)	0.253	(0.222)
United Kingdom	0.016**	(0.008)	0.019**	(0.009)	0.000	(0.019)	0.032	(0.032)
United States	0.018	(0.016)	0.035*	(0.018)	0.013	(0.030)	0.049	(0.036)
Venezuela	0.270***	(0.094)	0.307***	(0.103)	0.245**	(0.101)	0.203*	(0.108)
Number of observations	412		412		412		412	
R-squared	0.382		0.394		0.424		0.449	

* significant at the 10% level, ** significant at the 5% level, *** significant at the 1% level.

Table V

Does the Control Premium Come from Overpayment?

Panel A reports the summary statistics of the cumulative abnormal returns (CAR) of the stock price of the acquiring company around the date the acquisition of the controlling block is announced. We use a window from 8 days prior to the announcement to 7 days after the announcement. We have 203 transactions involving publicly-traded acquirors, of which 125 have stock prices reported in Datastream. Panel B reports the OLS estimates of two regressions, where the dependent variable is the acquiror' CAR from t-8 and t+7 and the independent variables are: (1) the raw block premia (Table IV column 1); (2) the raw block premia (Table IV column 1) interacted with a measure of how much stock prices move together at the country level (see Morck, Yeung and Yu (2000)). Definitions for each of the variables can be found in Table I. Robust standard errors are in parentheses.

Panel A - Cumulative abnormal returns of the acquiror

	from t-8 to t+7
Mean	0.005
Median	0.000
Maximum	0.333
Minimum	-0.408
Standard deviation	0.108
Number of observations	125

Panel B - Systematic differences in cumulative abnormal returns

Independent Variables	Dependent Variable: Cumulative Abnormal Return of acquiror (from t-8 to t+7)	
	(1)	(2)
Block premia	-0.018	-0.111
	(0.039)	(0.151)
Block premia x syncrhonicity in target nation		0.448
		(0.806)
Constant	0.007	0.007
	(0.011)	(0.011)
Number of Observations	125	104
R-squared	0.002	0.008

* significant at the 10% level, ** significant at the 5% level, *** significant at the 1% level.

Table VI

Does Investor Protection in the Acquiror's Country of Origin Affect the Acquiror's Willingness to Pay for Control?

The dependent variable is the block premia as a percent of firm equity. The explanatory variables include all of the variables introduced in table IV column (4) plus the interaction between the foreign acquiror's dummy and the difference between the La Porta et al. (1998) measure of anti-director rights for the country of the acquiring company and the one for the country of the acquired company. Robust standard errors are in parentheses.

Indepenedent Variables	Dependent Variable: Block Premium	
Foreign acquiror dummy	0.058*	
	(0.033)	
Interaction of relative strength of anti-director rights (home - target nation) and foreign acquiror	-0.026**	
	(0.011)	
Variables Controlled for:		
Buyer's proportion of change in security value	y	
Ownership variables	y	
Financial distress	y	
Buyer identity	y	
Seller identity	y	
Industry group	y	
Tangibility of assets	y	
Country fixed effects		
Argentina	0.184	(0.114)
Australia	0.041	(0.051)
Austria	0.305***	(0.05)
Brazil	0.641***	(0.24)
Canada	-0.049	(0.079)
Chile	0.131**	(0.059)
Colombia	0.255*	(0.135)
Czech Republic	0.552*	(0.327)
Denmark	0.017	(0.062)
Egypt	0.043	(0.066)
Finland	-0.005	(0.035)
France	0.044	(0.061)
Germany	0.029	(0.055)
Hong Kong	0.034	(0.045)
Indonesia	0.029	(0.042)
Israel	0.250**	(0.116)
Italy	0.312	(0.192)
Japan	-0.043	(0.049)
Malaysia	0.086***	(0.031)
Mexico	0.330**	(0.133)
Netherlands	-0.046	(0.064)
New Zeland	0.016	(0.040)
Norway	0.041	(0.041)
Peru	0.080	(0.076)
Phillipines	0.145*	(0.078)
Poland	0.020	(0.075)
Portugal	0.200***	(0.054)
Singapore	0.040	(0.061)
South Africa	-0.016	(0.069)
South Korea	0.116	(0.078)
Spain	0.058	(0.053)
Sweden	0.045	(0.048)
Switzerland	-0.058	(0.068)
Taiwan	-0.047	(0.072)
Thailand	0.112	(0.079)
Turkey	0.269	(0.221)
United Kingdom	0.024	(0.032)
United States	0.042	(0.037)
Venezuela	0.217**	(0.104)
Number of observations	412	
R-squared	0.455	

* significant at 10% level; ** significant at 5% level; *** significant at 1% level

Table VII

Comparing Control Premia Measures

Panel A reports side by side Nenova's (2000) estimates of the value of control based on the price difference between classes of shares with differential voting rights and ours, based on control block transactions. Column 1 reports Nenova's voting premium, defined as total vote value (value of a vote times number of votes) as a share of firm's market value. Column 2 reproduces our raw block premium (table IV column (1)). Column 3 reports Nenova's fixed effect estimates of the value of control, where she controls for differences in the dividend rights between the two classes of stock, differences in liquidity, and the presence of a conversion option (Nenova, (2000), table 6, IV). Column 4 reports our fixed effect estimates of the value of control (table VI). Column 5 reports the percentage of firms in Datastream sample that have multiple share classes with available price data, where the number of firms with multiple share classes is taken from Nenova (2000) and the number of firms with equity prices in Datastream for 1997 is reported in Appendix Table 2. Panel B reports OLS regressions of the difference between Nenova's control premia and ours. In column 1 there is the difference between the raw estimates, in column 2 the difference between the fixed effect estimates. The explanatory variable is the percentage of firms that have dual class shares and price data available in each country (column 5 of Panel A). Robust standard errors are in parentheses.

Panel A - Data comparisons

	Raw data		**Estimated country fixed effects**		
Country	Premia using voting/non-voting shares (Nenova, table 5 (2000))	Block premia (table IV, col 1)	Premia using voting/non-voting shares (Nenova, table 6, IV (2000))	Block premia (table VI)	Percentage of equities with dual class shares and available price data
Australia	0.232	0.019	0.185	0.04	0.01
Brazil	0.232	0.650	0.180	0.64	0.59
Canada	0.028	0.013	0.035	-0.05	0.04
Switzerland	0.054	0.063	0.054	-0.07	0.19
Chile	0.231	0.147	0.231	0.14	0.07
Germany	0.095	0.095	0.148	0.01	0.14
Denmark	0.008	0.077	0.009	0.02	0.20
Finland	-0.050	0.025	0.058	-0.01	0.24
France	0.281	0.017	0.282	0.05	0.02
United Kingdom	0.096	0.016	0.090	0.03	0.02
Hong Kong	-0.029	0.007	-0.029	0.03	0.01
Italy	0.294	0.369	0.345	0.30	0.31
South Korea	0.289	0.157	0.338	0.08	0.11
Mexico	0.364	0.345	0.460	0.30	0.06
Norway	0.058	0.010	0.058	0.04	0.11
Sweden	0.010	0.064	0.010	0.04	0.19
United States	0.020	0.018	0.016	0.05	0.08
South Africa	0.067	0.017	0.063	0.00	0.07

Panel B. Can differences between benefits-estmates be explained by potential selection bias in voting rights approach?

	Dependent variable : Nenova measure - our measure	Dependent variable: Refined Nenova measure - our refined measure
Percentage of dual class firms in country	-0.877***	-0.806***
	(0.110)	(0.234)
Constant	0.129***	0.156***
	(0.029)	(0.037)
Number of observations	18	18
Adjusted R-squared	0.756	0.573

***significant at 1% level

Table VIII

Testing the Theoretical Predictions on the Effects of Private Benefits on Financial Market Development

In column 1 of Panel A the dependent variable is the average concentration of ownership as measured by the combined stakes of the three largest shareholders in the 10 largest non-financial, non-foreign corporations where the state is not a shareholder (see La Porta et al. (1997)). In column 2 the dependent variable is the percentage of privatization transactions that took the form of an asset sale rather than a share offering (Megginson et al. (2000). In Panel B the dependent variables are: (1) the number of initial public equity offerings of equity in 1995-1996; (2) the number of listed domestic firms; (3) the ratio of the stock market capitalization held by minority investors to GNP (all from La Porta et al. 1997). The explanatory variables are the average log GDP per capita 1970-1995 (World Bank) and our fixed effect estimates of the country average level of value of control. More complete variable descriptions and sources are provided in Table I. The instruments are the families of origin of a country's legal system (English, French, German, Scandinavian, and Soviet). Robust standard errors are in parentheses.

Panel A - Dependent Variables: Ownership Structure

	(1)		(2)	
	OLS	**Instrumental Variables**	**OLS**	**Instrumental Variables**
Dependent variables:	**ownership concentration (3 largest)**		**Percentage of privatizations as asset sales (not share offerings)**	
Independent Variables				
Country control premia	0.378**	0.760**	1.031***	4.638**
	(0.143)	(0.347)	(0.361)	(2.262)
log per capita income	-0.050***	-0.029	-0.025	0.114
	(0.015)	(0.024)	(0.058)	(.132)
equity market capitalization/ GNP			.004	.518
			(.129)	(.515)
constant	0.833***	0.616**	0.560	-1.22
	(0.131)	(0.235)	(0.538)	(1.45)
Number of Obs.	36	36	34	34
R-squared	0.437		0.230	

Panel B. Dependent Variable: Capital market structure based on aggregate data

	(1)		(2)		(3)	
	OLS	**Instrumental Variables**	**OLS**	**Instrumental Variables**	**OLS**	**Instrumental Variables**
Dependent Variables:	**Initial public offerings in 1996/ population**		**Number of listed domestic firms/ population**		**Equity market capitalization/ GNP**	
Independent Variables						
Country control premia	-2.434*	-15.11*	-15.64	-222.1*	-1.207***	-4.378**
	(1.279)	(7.694)	(31.03)	(118.4)	(0.439)	(1.772)
log per capita income	0.482**	-0.131	9.190***	0.165	-0.029	-0.168
	(0.196)	(0.485)	(3.113)	(6.110)	(0.064)	(0.115)
constant	-2.652*	3.965	-51.50**	46.52	0.814*	2.320**
	(1.528)	(4.752)	(24.85)	(61.54)	(0.600)	(1.108)
Number of Obs.	34	34	37	37	37	37
R-squared	0.184		0.158		0.172	

* significant at 10% level; ** significant at 5%; ***significant at 1% level

Table IX

Institutional variables

This table presents summary statistics of the institutional variables used in tables IX-XII. Variable definitions and sources can be found in Table I.

		Legal institutions			Extra legal institutions						
Country	legal origin	Accounting standards (0- 90)	Anti director rights (0-6)	Rule of law at country level (1-10)	competition laws	newspaper circulation /pop	Serious crime/ 100,000 population	Labor protection measure	Tax compliance (1-6)	Acceptability of cheating on taxes (1-10)	Primary Religion
Argentina	French	45	4	5.35	4.85	1.2	8.2		2.41	1.97	Catholic
Australia	English	75	4	10	5.52	3.0	57.5	0.9	4.58	2.16	Protestant
Austria	German	54	2	10	5.29	2.9	57.3	2.2	3.6	1.97	Catholic
Brazil	French	54	3	6.32	4.9	0.4			2.14	3.11	Catholic
Canada	English	74	5	10	5.37	1.6	122.3	0.6	3.77	2.34	Catholic
Chile	French	52	5	7.02	5.4	1.0	53.7		4.2	1.98	Catholic
Colombia	French	50	3	2.08	4.71	0.5	129.1		2.11	1.92	Catholic
Czech Republic	Soviet		2	8.3	4.89	2.5	177.2		2.54		Atheist
Denmark	Scand.	62	2	10	5.16	3.1	46.1		3.7	2.48	Protestant
Egypt	French	24	2	4.17	4.6	0.4			3.57		Muslim
Finland	Scand.	77	3	10	5.26	4.6	47.1	2.0	3.53	2.63	Protestant
France	French	69	3	8.98	5.83	2.2	126.8	3.0	3.86	3.28	Catholic
Germany	German	62	1	9.23	5.91	3.1	74.1	2.5	3.41	2.94	Protestant
Hong Kong	English	69	5	8.22	5.85	8.0	190.8		4.56		Local beliefs
Indonesia	French		2	3.98	4.42	0.2	4.6		2.53		Muslim
Israel	English	64	3	4.82	5.11	2.9	68.9		3.69		Judaism
Italy	French	62	1	8.33	5.14	1.0	61.7	3.3	1.77	2.28	Catholic
Japan	German	65	4	8.98	5.64	5.8	2.7	2.4	4.41	1.49	Buddhist
Malaysia	English	76	4	6.78	4.84	1.6	34.5		4.34		Muslim
Mexico	French	60	1	5.35	4.93	1.0	100.8		2.46	3.35	Catholic
Netherlands	French	64	2	10	5.53	3.1	122.8	2.1	3.4	3.08	Catholic
New Zealand	English	70	4	10	5.4	2.2	52.3	1.0	5		Protestant
Norway	Scand.	74	4	10	4.96	5.9	26.9	2.6	3.96	3.10	Protestant
Peru	French	38	3	2.5	5.05	0.8			2.66	2.15	Catholic
Phillipines	French	65	3	2.73	4.61	0.8	90.9		1.83	3.00	Catholic
Poland	Soviet		3	8.7	5.06	1.1	99.6		2.19	2.61	Catholic
Portugal	French	36	3	8.68	4.81	0.8	12.4	3.7	2.18	3.82	Catholic
Singapore	English	78	4	8.57	5.21	3.2	45.2		5.05		Buddhist
South Africa	English	70	5	4.42	4.89	0.34	225.2		2.4	2.44	Protestant
South Korea	German	62	2	5.35	4.9	3.9	8.5		3.29	1.64	Protestant
Spain	French	64	4	7.8	5.07	1.0	169.6	3.1	1.91	2.57	Catholic
Sweden	Scand.	83	3	10	5.08	4.5	80.1	2.2	3.39	2.30	Protestant
Switzerland	German	68	2	10	5.22	3.3	38.3	1.0	4.49	2.50	Catholic
Taiwan	German	65	3	8.52	5.56	2.7	34		3.25	1.98	Buddhist
Thailand	English	64	2	6.25	4.77	0.6	70.4		3.41		Buddhist
Turkey	French	51	2	5.18	5.14	1.1	69.2		2.07	1.24	Muslim
United Kingdom	English	78	5	8.57	5.74	3.3	96.4	0.5	4.67	2.65	Protestant
United States	English	71	5	10	5.96	2.12	272.5	0.2	4.47	1.95	Protestant
Venezuela	French	40	1	6.37	4.24	2.06	86.5		1.56	1.98	Catholic

Panel B - Correlation matrix

	Accounting standards (0- 90)	Anti director rights (0-6)	Rule of law at country level (1-10)	competition laws	newspaper circulation /pop	Serious crime /100,000 population	Labor protection measure	Tax compliance (1-6)	Acceptability of cheating on taxes (1-10)
accounting standards	1.00								
anti-director rights	0.32	1.00							
rule of law	0.53	0.06	1.00						
competition laws	0.49	0.26	0.59	1.00					
newspaper circulation	0.54	-0.01	0.62	0.35	1.00				
serious crime	0.19	0.33	-0.09	0.26	-0.13	1.00			
labor protection	-0.57	-0.55	-0.54	-0.46	-0.10	-0.35	1.00		
tax compliance	0.58	0.40	0.65	0.74	0.65	-0.08	-0.78	1.00	
cheat	0.08	-0.11	0.17	-0.03	-0.11	0.07	0.46	-0.10	1.00

Table X

Institutional Determinants of Private Benefits of Control – Univariate analysis

The dependent variable is the block premia as a percent of firm equity. The explanatory variables include all of variables introduced in table VI expect the country fixed effects, but including a dummy to indicate the presence of a mandatory tender offer law. In place of the country fixed effects, we introduce one at a time several institutional variables: (1) accounting standards index; (2) anti-director rights index; (3) rule of law index; (4) tax compliance index; (5) diffusion of the press as measured by the newspaper circulation/ population; (6) an index of the extent of competition laws; (7) incidence of violent crimes; (8) extent of legal protections for labor; (9) a dummy variable if primary religion is Catholicism. More complete descriptions of variables are provided in Table I. Standard errors, which are reported in parentheses, are robust and clustered by country.

	Dependent Variable: Block Premium								
Independent Variables	Legal Institutions					Extra Legal Institutions			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Accounting standards	-0.006***								
	(0.002)								
Anti director rights		-0.031**							
		(0.013)							
Rule of law			-0.028***						
			(0.009)						
Competition laws				-0.135***					
				(0.042)					
Newspaper circulation/pop					-0.033**				
					(0.012)				
Violent crime incidence						0.000			
						(0.000)			
Labor protection							0.030		
							(0.021)		
Catholic is primary religion								0.106*	
								(0.062)	
Tax compliance									-0.078***
									(0.023)
Variables Controlled for:									
Buyer bargaining power	y	y	y	y	y	y	y	y	y
Ownership variables	y	y	y	y	y	y	y	y	y
Financial distress	y	y	y	y	y	y	y	y	y
Foreign acquiror	y	y	y	y	y	y	y	y	y
Buyer identity	y	y	y	y	y	y	y	y	y
Seller identity	y	y	y	y	y	y	y	y	y
Industry group	y	y	y	y	y	y	y	y	y
Tangibility of assets	y	y	y	y	y	y	y	y	y
Interaction of relative strength of anti-director rights (home -target nation) and foreign acquiror	y	y	y	y	y	y	y	y	y
presence of takeover law	y	y	y	y	y	y	y	y	y
constant	y	y	y	y	y	y	y	y	y
number of observations	399	412	412	412	412	396	246	412	412
Countries included	36	39	39	39	39	36	18	39	39
R squared	0.203	0.166	0.244	0.244	0.245	0.203	0.188	0.176	0.218

* significant at 10% level; ** significant at 5%; ***significant at 1% level

Table XI

Institutional Determinants of Private Benefits of Control – Multivariate analysis

The dependent variable is the block premia as a percent of firm equity. The explanatory variables include all of the variables introduced in table VI expect the country fixed effects, but including a dummy to indicate the presence of a mandatory tender offer law. As institutional variables in specification (1) we use anti-director rights index and rule of law index. In specification (2) a dummy variable if primary religion is Catholicism, a tax compliance index, the diffusion of the press as measured by the newspaper circulation/ population and the index of the extent of competition laws. The independent variables in specification (3) are anti-director rights index, rule of law index, tax compliance index, diffusion of the press as measured by the newspaper circulation/ population. More complete descriptions of variables are provided in Table I. Standard errors, which are reported in parentheses, are robust and clustered by country.

	Dependent Variable: Block premium		
Independent Variables	(1)	(2)	(3)
anti director rights	-0.020*		0.002
	(0.011)		(0.018)
rule of law	-0.025***		-0.007
	(0.009)		(0.010)
catholic		0.019	
		(0.053)	
tax compliance		-0.059***	-0.058*
		(0.019)	(0.033)
newspaper circulation/ population		-0.018**	-0.015*
		(0.008)	(0.009)
competition laws		-0.037	
		(0.033)	
Variables Controlled for:			
Buyer bargaining power	y	y	y
Ownership variables	y	y	y
Financial distress	y	y	y
Buyer characteristics	y	y	y
Seller characteristics	y	y	y
Foreign acquirer	y	y	y
Industry type	y	y	y
Tangibility of assets	y	y	y
Interaction of relative strength of anti-director rights (home -target nation) and foreign acquiror	y	y	y
presence of takeover law	y	y	y
constant	y	y	y
number of observations	412	412	412
Countries included	39	39	39
R squared	0.203	0.230	0.230

* significant at 10% level; ** significant at 5%; ***significant at 1% level

Table XII

Private Benefits of Control and Legal Origin

Panel A presents descriptive statistics of block premia by legal origin, first presenting averages at the country level and second presenting averages based on the full set of 412 transactions. Panel B provides OLS regressions of block premia on legal origin and our other explanatory variables. The independent variables examined are those included in Table X with (1) legal origin; (2) tax compliance and newspaper circulation; (3) English origin to capture the difference between common and civil law origin, tax compliance and newspaper circulation; (4) all legal origin dummies, tax compliance and newspaper circulation. More complete descriptions of variables are provided in Table I. Robust standard errors clustered by country are in parentheses.

Panel A. Block Premium by Legal Origin

	Groups of Legal Origin			All transactions		
Law Origin	mean	standard deviation	Number of Countries	mean	standard deviation	Number of observations
scandinavian origin	0.04	0.03	4	0.04	0.07	46
english origin	0.06	0.08	11	0.05	0.12	205
german origin	0.11	0.15	6	0.05	0.14	58
french origin	0.21	0.17	16	0.24	0.43	92
soviet origin	0.34	0.33	2	0.37	0.62	11

Panel B. Investigating explanatory power of legal origin

	Dependent Variable: Block premium			
Independent Variables	(1)	(2)	(3)	(4)
english origin	-0.131**		0.065	0.002
	(0.063)		(0.041)	(0.057)
soviet origin	0.117			0.121
	(0.199)			(0.206)
german origin	-0.213**			-0.114
	(0.090)			(0.081)
scandinavian origin	-0.171***			-0.091*
	(0.052)			(0.050)
tax compliance		-0.064***	-0.089***	-0.069***
		(0.019)	(0.026)	(0.020)
Newspaper circulation		-0.018**	-0.010	0.001
		(0.009)	(0.010)	(0.008)
Variables controlled for:				
Buyer bargaining power	y	y	y	y
Ownership variables	y	y	y	y
Financial distress	y	y	y	y
Buyer identity	y	y	y	y
Seller identity	y	y	y	y
Industry group	y	y	y	y
Tangibility of assets	y	y	y	y
foreign acquirer dummy	y	y	y	y
Interaction of relative strength of anti-director rights (home -target nation) and foreign acquiror	y	y	y	y
presence of takeover law	y	y	y	y
Constant	y	y	y	y
Num of obs.	412	412	412	412
Num. of countries (clusters)	39	39	39	39
R-squared	0.228	0.228	0.233	0.247

* significant at 10% level; ** significant at 5%; ***significant at 1% level

Appendix Table 1 - Laws regarding control transactions

Country	Law requiring mandatory purchase of additional shares	Voluntary code requiring purchase of additional shares	Shareholding that triggers mandatory purchase of shares	Year of passage of dominant legal statute	Legal and Regulatory Bases on Takeovers
Argentina	N		-	-	Resolution 227, National Securities Commission
Australia	Y		20	1989	Corporations Law
Austria*	Y		30	1999	Council of Vienna Stock Exchange, State Commissioner
Brazil (1)	Y		50	1976	Law 6404, law 9457, CVM rule #299
Canada	Y		20	1975	Canada Business Corporations Act, Provincial legislation
Chile (2)	N		-	1994	Law 18.045
Colombia	N		-	1979	Act No. 32
Czech Republic	Y		50	1991	Czech Commercial Code
Denmark	Y		50	n/a	Danish Securities Trading Act, Stock Exchange Ethics Rules
Egypt					
Finland	Y		67	1989	Securities Market Act
France	Y		33	1992	COB regulations, Stock Exchange Council
Germany* (3)	N	Y	50	1995	Voluntary takeover code (Ubernahmekodex)
Hong Kong	N	Y	35	1975	Hong Kong code on Takeovers and Mergers
Israel	N		-		
Indonesia	Y		20	1995	Decree of Capital Market Supervisory Agency No. 22/PM/1
Italy	Y		30	1998	Law no. 149
Japan	N		-	-	Securities and Exchange Law Ch. II.2
Kenya	N		-	1985	Company Act,Capital Markets Authority Act
South Korea	Y		25		Securities and Exchange Law
Malaysia	y		33	1993	Malaysian Code on takeovers and mergers, Companies Act
Mexico	N		-	-	Corporation Law, Credit Law, other regulatory acts
Netherlands	N		-	1970	Merger Code of the Social Economic Council
New Zealand	N		-	1986	Companies Act 1986
Norway	Y		45	1985	Securities Trading Act
Peru	N		-	-	Stock Market Law
Phillipines* (4)	Y		-	1998	Revised tender-offer rules, Securities and exchange commission
Poland	Y		33	1991	Act on Public Trading in Securities and Trust Funds
Portugal	Y		50	1986	Securities Act
Singapore	N	Y	25	1985	Singapore Code on Takeovers and Mergers
South Africa	Y		30	1991	Securities Regulation Code on Takeovers and Mergers
Spain	Y		25	1991	Law No. 24, Royal Decree 1197
Sweden	N		-	1991	Financial Instruments Trading Act
Switzerland*	Y	Y	33	1998	Federal Act on Stock Exchanges and Securities Trading
Taiwan	N		-	1988	Securities and exchange Law, company law 1983
Thailand	Y		25	1992	Securities and Exchange Act
Turkey*	Y		25	1986	Capital Market Law
United Kingdon	N	Y	30	1968	City code on Takeovers and Mergers
United States	N		-	1934	Securities and Exchange Act
Venezuela	N		-	-	Capital Markets Law

Sources: ISSA Handbook, 6th and 7th edition, EIU country commerce guides, exchange web sites.

(1) Prior to 1997, Brazil law 6404 required equal offer to minority investors with voting shares (but not non-voting preferred shares). This protection eliminated in May 1997 (Law 9457) with reform to enhance privatization proceeds. In 1999, CVM rule #299 reintroduces protections for minorities, now extending to voting and non-voting class an equal price offer.

(2) IN December 2000 (after our observations) Chile has a new law, ley de OPSAS, governing control transactions.

(3) Germany has a voluntary takeover code (Ubernahmekodex) in place since 1995. This code "was deemed a failure in early 2000, when both stock market supervisors and the takeover commission appointed by Mr.Schroder demanded a mandatory law." EIE Country Commerce, section 2.2. 2000.

(4) The SEC generally failed to enforce tender-offer rules in major deals involving mergers and acquisitions from 1998 to 2000 because of loopholes in the old regulations. (EIU March 2001) Securities Regulation Code (RA 8799 effective August 2000, implementing rules January 2001) requires those assembling >15% to make offer.

Appendix Table 2 -No. of equities with price information in Datastream, by year

Country code	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	1990-2000
Argentina	12	13	14	23	61	66	70	73	78	80	84	93	655
Australia	452	474	487	515	594	697	741	1095	1176	1178	1287	1506	9750
Austria	71	91	110	131	142	158	170	179	186	188	196	208	1759
Brazil		75	143	234	314	371	371	456	481	500	540	557	4042
Canada	1502	1971	1976	2024	2195	2353	2473	2653	2981	3222	3352	3759	28959
Chile	115	127	134	151	164	170	177	196	209	220	219	221	1988
Colombia				104	109	133	122	113	108	98	85	72	944
Czech Republic					38	57	91	114	129	128	131	126	814
Denmark	205	210	249	252	261	267	277	296	295	303	291	304	3005
Egypt						10	12	65	72	82	101	103	445
Finland	58	67	70	71	76	123	128	153	178	198	228	258	1550
France	508	628	640	663	693	793	859	1084	1143	1287	1229	1416	10435
Germany	618	700	735	742	777	800	835	893	926	1015	1188	1348	9959
Hong Kong	251	266	322	371	429	494	518	567	676	723	756	1072	6194
Indonesia		107	120	133	150	192	213	225	259	261	292	313	2265
Israel	196	202	201	267	475	542	558	567	569	593	667	710	5351
Italy	283	309	319	323	325	348	366	388	406	419	443	535	4181
Japan	2011	2321	2520	2592	2677	2954	3136	3347	3552	3582	3829	4304	34814
Malaysia	346	404	447	493	544	607	663	757	847	872	738	776	7148
Mexico	46	52	75	99	132	151	145	152	172	163	170	160	1471
Netherlands	237	260	271	273	277	288	303	326	361	408	437	482	3686
New Zeland	68	74	80	91	111	126	130	145	154	153	157	176	1397
Norway	80	97	100	114	128	160	182	217	273	287	269	274	2101
Peru			22	48	76	98	100	105	102	99	104	96	850
Phillipines	64	96	103	114	137	160	187	212	231	229	222	225	1916
Poland			6	11	12	22	27	51	103	167	200	221	820
Portugal	101	110	116	135	140	149	144	148	155	152	143	148	1540
Singapore	142	172	176	195	222	255	273	293	337	348	409	534	3214
South Africa	161	458	454	469	483	526	535	606	641	724	770	736	6402
South Korea	604	660	678	685	694	739	796	1017	1135	1140	1299	1569	10412
Spain	110	125	133	138	149	152	154	165	184	211	234	264	1909
Sweden	177	197	202	213	232	296	318	362	442	484	532	633	3911
Switzerland	259	295	295	290	309	325	343	375	390	401	426	459	3908
Taiwan	161	178	199	240	271	305	340	451	515	620	738	856	4713
Thailand	244	291	350	410	441	521	537	576	602	579	546	531	5384
Turkey	70	100	125	135	152	178	209	236	270	298	302	387	2392
United Kingdom	1812	1872	1749	1713	1782	1841	1932	2084	2222	2272	2301	2625	22393
United States	274	393	415	419	427	438	462	662	929	1235	2671	4743	12794
Venezuela		10	10	11	14	19	21	22	23	25	29	53	237
Total	2011	2321	2520	2592	2677	2954	3136	3347	3552	3582	3829	4743	