

**Private Equity in the Developing World:  
The Determinants of Transaction Structures**

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PRELIMINARY AND INCOMPLETE

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## **1. Introduction**

Financial economists generally believe that venture capital and private equity funds exist to address the substantial information gaps between investors and entrepreneurs, especially those in rapidly growing and restructuring firms. By carefully structuring the initial transaction and intensively monitoring the firm after the investment, they can avoid many of the problems that deter banks and other financiers from investing in these settings. Theorists from Chan [1983] to Cornelli and Yosha [2003] have argued that many of the features of private equity investments, such as the use of convertible preferred securities, help these investors solve difficult information problems.

The influence of these arguments has extended beyond academic circles. Multinational agencies such as the International Finance Corporation and European Bank for Reconstruction and Development have spent many billions of dollars on private equity funds, in the belief that they are well suited for financing firms in developing countries (Brenner [1999]). These organizations have argued that the information problems in these nations are particularly severe, and hence that private equity funds should be very suitable investors in this setting. (These funds have also been encouraged on the grounds that they are less prone to the rapid inflows and outflows that often characterize public market investors in these markets.) Numerous developing nations, such as Brazil, China, and India, have launched major venture capital initiatives in their own right.

Given this backdrop, the apparent lack of success of private equity funds in the developing world is surprising. The share of the global private equity pool devoted to the developing world has declined sharply since 1995, and a number of large institutional investors have largely abandoned making such investments. (See Figures 1 and 2.) While systematic data are hard to come by, returns from private equity in these nations also appear to have been far lower than in the United States and Europe.<sup>1</sup>

Thus, the experience of private equity funds in the developing world pose many interesting issues, which have been little explored in academic research to date. In this paper, we will focus on one of these dimensions: the types of transaction structures employed in the developing world.<sup>2</sup> Using a sample of 167 transactions from a wide variety of private equity groups, we explore these deal structures, and how they vary with the nature of the nations in which the investments are made. (We are currently in the process of extending the number of private equity groups and deals. In subsequent drafts of this paper, we will undertake the analysis with a larger sample size.)

Several striking patterns emerged from the analysis:

- Unlike in the United States, where the use of convertible preferred securities is ubiquitous in private equity, substantially different securities are employed in developing nations. More than one-half of the transactions employ common stock, and a subset of transactions employ instruments that are essentially debt.

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<sup>1</sup>See, for instance, Goldman Sachs and Frank Russell [1999].

<sup>2</sup>We employ the phrase “private equity” to encompass what are known as venture capital, buyout, and mezzanine transactions in the United States.

Private equity investor rights that are standard in the United States, such as anti-dilution provisions, are encountered far less frequently.

- The choice of security employed appears to be driven by the setting of the firm and the nature of the private equity group. Investments in common law nations and by U.K. and U.S. private equity groups are far less likely to employ common stock or straight debt, and more likely to employ preferred stock.
- In nations where the rule of law is less established, private equity groups are less likely to employ preferred securities. They are likely, however, to have a majority of the firm's equity and to make the size of their equity stakes contingent on the performance of the company. We argue below that this result is consistent with research findings analyzing public securities markets.
- Larger financings and higher valuations are seen in nations with a common law tradition. This effect is robust even after controlling for the headquarters of the private equity group (*i.e.*, our results are not purely driven by common law funds investing in common law countries. In fact, we find that U.S.- and U.K.-based funds invest in a wide range of countries with different legal backgrounds.) Again, this result is consistent with the literature on public securities.
- Transactions in common law nations are generally associated with more contractual protections for the private equity group.
- The composition of boards of directors differs little from that seen in the United States. Common law countries have more substantial representation of founders

and managers on boards, which suggests that board structure may serve as a substitute for contractual protections.

These results are also highly relevant for the “law and finance” literature that examines the variation of financial structure across countries and its implications. While a large number of papers have looked at the relationship between the legal origin of countries and the functioning of their public markets, we are not aware of any study that systematically looks at the implications for the structure of private transactions. As the growing literature on finance in emerging markets highlights, however, stock markets play only a very limited role relative to private transactions in the financing of investments in developing countries. Therefore, it seems important to understand whether legal constraints and differences in the enforcement of laws in different countries have similar implications for private transactions. Moreover, because we can look at the actual contractual relationships between investors and equity-holders, the analysis allows us understand the challenges that equity-holders face in a particularly striking way.

At the same time, several of the key results are very consistent with earlier studies examining securities. Along the lines of La Porta, Lopez-de-Silanes, Shleifer, and Vishny’s [1998] study of public shareholders, we show that in nations where the rule of law is weaker, private equity-holders display a greater reliance on concentrated equity holdings. Similarly, consistent with La Porta, Lopez-de-Silanes, Shleifer, and Vishny [2002], investments in common law countries have higher valuation levels. Finally, the frequent absence of many of the contractual protections commonplace in United States

private equity deals, particularly in non-common law countries, is a striking illustration of the broad themes highlighted in this literature.

The plan of this paper is as follows. Section 2 provides a brief introduction to private equity in developing countries. Section 3 briefly reviews the earlier literature. Section 4 describes the construction of the data set. The analysis is in Section 5. The final section concludes the paper.

## **2. Private Equity in the Developing World<sup>3</sup>**

We begin with a brief overview of private equity in developing countries. Lest we set the reader's expectations too high, however, we should note up-front that we will only address a modest sub-set of these considerations in the empirical analysis in this paper.

Two sets of rationales have been offered for the interest in private equity activity in the developing world during recent decades.<sup>4</sup> The first relate to the changes in the

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<sup>3</sup>This section is based in part on Carter, Barger, and Kuczynski [1996] and Sagari and Guidotti [1992].

<sup>4</sup>According to the World Bank, developing nations are those countries that have either low- or middle-level per capita incomes; have underdeveloped capital markets; and/or are not industrialized. It should be noted, however, that the application of these criteria is somewhat subjective. For instance, Kuwait appears on many lists of developing nations despite its high per capita gross domestic product. The reason for its inclusion lies in the income distribution inequality that exists there, which has not allowed it to reach the general living standards of developed countries. For the purposes of this paper, we take an expansive view of what constitutes a developing nation, and simply eliminate any transaction taking place in the 24 nations who were original members of the Organisation for Cooperation and Development or joined within the first fifteen years of its creation (*i.e.*, through the addition of New Zealand in 1973).

developing nations themselves. Many have undertaken radical reforms, such as the reduction of trade barriers and enhancement of intellectual property protection. External changes—e.g., technological innovations in transportation of goods—have also accelerated the integration of developing nations into the world economy.

The second set relates to the changing conditions in the developed nations. Many institutional investors have been skeptical that the attractive returns characterizing venture capital and leveraged buy-out funds in many developed nations could be sustained, and looked for new arenas in which to invest. The disparity between the rate of economic growth in developed and developing nations—while the developed economies grew at an inflation-adjusted annual rate of 1.9% between 1990 and 1999, emerging market economies grew at 5.8% (International Monetary Fund [2001])—suggested that they were attractive places for investment.

In many respects, private equity in developing and developed countries is similar. In both settings, professional investors provide equity or equity-linked capital to privately held firms. Another key element is the ongoing involvement of the private equity investor in monitoring and assisting the company.

Where private equity in developing countries differs is in its implementation. There are several key differences:

- *Fund structure.* The fund structure standard in developed countries is the limited partnership. The general partners are the individual venture capitalists (or an investment management firm controlled by these individuals). The general

partners are in charge of raising, making, monitoring, and exiting the investments. In return they are paid a management fee plus a share of the profits. The limited partners are prohibited from playing an active role in managing the investments and usually enjoy tax benefits. But in many portions of the developing world, particularly in Asia, there has been a general lack of legal structures that allow the establishment of limited partnerships. In these regions, many funds have been structured as corporations, which often do not have the forced liquidation feature of limited partnerships.

- *Funding sources.* Many of the sources of capital for private equity funds for private equity funds in developing countries are similar: e.g., pension funds and university endowments, typically based in the developed world. Several additional parties, however, have played an important role in the raising of private equity funds in developing nations. These have included foreign aid organizations like the U.S. Agency for International Development, quasi-governmental corporations like the Overseas Private Investment Corporation, and multilateral financial institutions like the International Finance Corporation.
- *Types of investments.* Private equity funds in developing nations undertake transactions familiar in the United States, including leveraged buyouts, consolidations of fragmented industries, and venture capital investments. But they also undertake several types of transactions less common in the U.S. setting,



including investments in privatizations, infrastructure projects such as highways and shipyards, and strategic alliances.<sup>5</sup>

- *Exiting.* Perhaps the most vexing aspect of private equity investing in developing nations has been the difficulty of exit. The fortunes of private equity investors in the developed world have been largely linked to those of the market for initial public offerings (IPOs). Private equity investors in developing countries cannot rely on these offerings. Even in “hot markets” where large foreign capital inflows are occurring, institutional funds are usually concentrated in a few of the largest corporations. Smaller and new firms typically do not attract significant institutional holdings, and have much less liquidity. Consequently, private equity investors in developing countries have tended to rely on the sale to portfolio firms to strategic investors. This can be problematic, however, when the number of potential buyers is small. The purchaser can exploit the private equity investor's need to exit the investment, and acquire the company for below its fair value.

### **3. Related Literature and Its Implications**

The analysis is at the intersection of two bodies of work. First, an extensive “law and finance” literature has sprung up in recent years, examining how the treatment of public equity and debt varies across countries. Second, the structure of venture capital

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<sup>5</sup>In many cases, major corporations have made strategic investments in developing countries without a detailed knowledge of the business environment or their partners. To address these information gaps, corporations have increasingly welcomed private equity funds as third-party investors. The private equity investor is expected to provide much of the informed monitoring of the local partner that the corporation finds difficult to undertake.

investments in the United States has been analyzed. This section will briefly discuss this literature, and discuss how the current analysis relates to earlier work.

The law and finance literature has highlighted the importance of a nation's legal origins in determining the structure and efficiency of its financial (and other) institutions. Many institutions in developing countries are not indigenous, but rather have been transplanted during colonization: for instance, English colonies widely adopted common law-based legal systems, while colonies of French legal family nations adopted civil law codes.

A variety of works have documented the importance of these origins. La Porta, Lopez-de-Silanes, Shleifer, and Vishny [1997, 1998] examine the laws protecting outside shareholders and creditors from expropriation in 49 countries. They identify legal origin as a crucial determinant of the laws governing the protection of outside investors from expropriation by corporate insiders, with common law nations providing better protection than civil law ones. They also show that better investor protection is strongly associated with broader and more valuable capital markets, a faster pace of public offerings, more dispersed ownership of public firms, and other indicators of financial development. Subsequent research shows that civil law countries exhibit other problematic features, such as heavier government intervention in economic activity (La Porta, Lopez-de-Silanes, Shleifer, and Vishny [1999]) and more burdensome regulation of new business entry (Djankov, La Porta, Lopez-de-Silanes, and Shleifer [2002]).

While the rationales for these differences are not fully understood (though see Coffee [2000] and Glaeser and Shleifer [2002]), these differences should be expected to affect not just the financing of public firms, but also that of private concerns. Thus, it will be important to examine the impact of the legal origins of the nation.

It will also be important to control for other circumstances surrounding the private equity investments. We anticipate that the following dimensions may be important:

- *The extent of economic development in the nation.* The nature of the opportunities that face the private equity investors may differ substantially with the degree of development of the nation, which will in turn be a function of its initial resources and many other considerations. These environmental factors may affect both the size and nature of available financing opportunities, as well as the subset that are attractive to professional private equity investors. For instance, a software start-up in Africa may be attractive to few private equity funds, because countrywide and firm-specific uncertainty factors may be too great. We employ the per capita gross national product (in current dollars) averaged over the 1990s.
- *The extent of the rule of law in the nation.* Since the relationship between a private equity investor and an entrepreneur is fundamentally a contractual one, the manner and ease with which property rights can be protected in the courts is a critical measure. As a result, the types of arrangements entered into between these parties should differ. The measure we employ, originally developed by the Fraser Institute, was employed in Acemoglu, Johnson, and Robinson [2001]. This

index is a rating on a scale from zero to ten, with the greater the equality of parties and the access to a non-discriminatory judiciary, the higher the score.<sup>6</sup>

The second body of related empirical literature examines the structure of venture capital investments. (For a detailed review of theoretical literature on the structure of these transactions, the reader is referred to Kaplan and Stromberg [2002].) This work, such as Gompers [1995], Gompers [1998], and Kaplan and Stromberg [2002], has largely focused on the United States. In their analyses, the earlier authors emphasize the crucial impact of the degree of uncertainty surrounding the transaction. In settings where there is substantial uncertainty surrounding the new venture, greater informational asymmetries should be present and the contribution of the entrepreneur more critical. In these settings, private equity investors will need to take steps to protect themselves from agency problems.

While these analyses are important and serve as a benchmark for us, our focus here will be on the broad sweep of transactions across countries. Thus, we will largely abstract away these issues by using dummy variables for each industry in the regressions. In supplemental regressions, we will control for the revenue and profitability of the firm in the year before the financing and the type of the private equity transaction. (The

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<sup>6</sup>We compared this measure to the index of property right protection developed in the 1997 Index of Economic Freedom, which was used in La Porta, Lopez-de-Silanes, Shleifer, and Vishny [1999]. The correlation coefficient between the two measures is high (0.82), but the rule of law measure was available for a considerably larger number of countries.

former figures, as well as the size and valuation of the financing round, are expressed in millions of 1997 dollars.)

Two earlier academic studies have explicitly considered private equity investments in at least some developing countries. Jeng and Wells [2001] analyze the determinants of venture capital for a panel data set of 21 (mostly developed) countries. They find that IPOs are the strongest driver of venture capital investing, particularly later-stage investments. Early-stage venture capital investing, however, is relatively unaffected by IPO activity but negatively impacted by labor market rigidities. Cummings and MacIntosh [2002] examine the types of transactions funded and exit routes employed in 12 Asian nations. They argue that the legal regimes affect the types of investments selected and the way in which the private equity groups exit their holdings, but not the level of the returns the investors enjoy.

A consideration that may affect transaction structure that is little discussed in the earlier literature is the location of the fund. Private equity groups may seek to apply a common template to their transactions, regardless of the location of the firm being funded. To partially address this concern, in this analysis we will control for whether the private equity organization is headquartered in the United States or the United Kingdom. We focus on funds based in these two nations both because of the common law origins of

these nations and the much more developed nature of their private equity industries, whether measured based on industry age or private equity per capita.<sup>7</sup>

#### **4. The Sample**

We constructed the sample by approaching a number of private equity groups. We asked each to provide us with the investment memorandum or private placement memorandum of as many transactions as possible, as well as the associated stock purchase agreements, preferred stock agreements, and any other documents associated with the structuring and governance of the transaction. We asked groups to choose a representative array of transactions, along dimensions such as the type of deal, the location and industry of the firm, and the success of the transaction. Given the lack of any comprehensive database of private equity transactions in the developing world, it was difficult to verify the completeness of the sample.

We deliberately attempted to recruit as diverse an array of private equity funds as possible. To this end, we complemented our own direct contacts (which were disproportionately those of large and U.S.-based groups) with those of four international development organizations, which tend to invest in smaller funds based in developing

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<sup>7</sup>Other issues may be relevant here as well, which we hope to explore in future work. Just as agency problems exist between entrepreneurs and their financiers, so too information gaps can exist within private equity organizations. These tensions should be most intense in private equity groups based in the developing world, as it may be difficult for the group's headquarters to monitor the activities of partners who are "on the ground." The New Africa Opportunity Fund provides one illustration: its founder, based in Durham, North Carolina, sued the African partners of fund in 2001. The suit alleged that the partners had taken bribes and demanded kickbacks from the companies they had financed (Williamson [2001]).

countries. These organizations encouraged funds in which they were invested to provide data as well.

Table 1 summarizes the sample. The 167 transactions are from 23 private equity groups, who contributed between 2 and 13 deals for our sample. The transactions occurred between 1987 and 2003, with the bulk of investments having been made between 1997 and 2002.

We classified the transactions by type using the definitions in European Venture Capital Association [2002]. The transactions are dominated by expansion transactions (which typically entail the provision of capital in growing firms that are more mature than the typical venture-backed concern), as well as venture capital and buyout investments. The other transactions are, as discussed above, less commonly seen in developed nations, such as investments in privatizations, initial public offerings, and acquisitions.

We first assigned the industries to detailed classes. Because a number of these industries shared common characteristics (e.g., a considerable number of transactions were in traditional manufacturing industries that are characterized by little R&D and few intangible assets), we consolidated the categories. The industries include a broad array, from traditional industries to information technology.

From Panel A of Table 2, we see that the average GNP per capita for the countries in our sample is \$2142 per year. Moreover, only 21% of the investments included in our

study are based in countries that have British legal origin, 28% in countries that have French legal origins, and 47% are in former socialist countries. By way of comparison, 56% of the investments included in this study are funded by private equity partnerships that are based either in the U.S. or U.K. While U.K.- and U.S.-based partnerships in our sample make the majority of investments in countries with British legal origin, we find that they also invest in a large fraction of deals that are not based in common law countries. This heterogeneity is important, since it will allow us to analyze whether a given partnership adjusts the contract terms in response to the environment of the country where the deal takes place.

In a study along these lines, selection biases are an almost inevitable consequence. (At least somewhat ameliorating this concern, we obtained transactions from a significant number of groups.) It is likely that the private equity groups that participated in this study are more Western-oriented and sophisticated than their peers. The presence of these biases make the substantial differences that we see from the U.S. pattern even more striking.

## **5. Analysis**

We proceed in six parts. We first examine the broad characteristics of the transactions. We then consider the types of securities employed. We next turn to understanding the nature of the financing and the allocation of equity ownership. We consider several dimensions of how the control over the company is allocated. Finally, we look at the correlations between these various features.



### *A. Summary Statistics*

Panel B of Table 2 provides an initial overview of the transactions. The differences between this sample and U.S. transactions are striking.

We will highlight several examples. In the United States, private equity transactions are dominated by those employing convertible preferred stock: nearly 80% of the transactions in Kaplan and Stromberg's [2002] sample of 200 U.S. deals rely on this security.<sup>8</sup> Common stock is quite rare, found in only a little more than 10% of the U.S. deals. In our sample, the transactions are dominated not by convertible preferred securities, but rather by common stock: fully 54% of the developing country transactions employ these securities. Convertible preferred stock is only encountered in 18% of the deals.<sup>9</sup>

Second, many of the protections commonly employed by venture capitalists in the U.S. are rarely employed. Kaplan and Stromberg [2002] find that venture capitalists obtain redemption rights in 84% of the transactions, anti-dilution protection in 95% of

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<sup>8</sup>It should be noted that Kaplan and Stromberg's sample includes only venture capital transactions, which would encompass transactions described as "venture capital" and "expansion" transactions in the developing world. (The category of "expansion" deals is not frequently employed in the U.S.) Legal texts (e.g., Bartlett [1995]), however, suggest we would observe similar patterns if we examined all U.S. private equity transactions.

<sup>9</sup>We tried as best as possible to avoid any bias in our coding of contractual terms that are purely based on differences in contractual language. For example, any security structure that has payoff streams equivalent to a convertible preferred would be classified as such, even if the contract did not explicitly use that term.

deals, and founder vesting requirements in 42% of transactions. The corresponding shares in our sample are 28%, 24%, and 5%.

Finally, the structure of the boards differed little from that seen in the U.S. The mean U.S. transaction had a board with 6.2 members, of which two seats were allocated to the founders and managers and two-and-a-half to venture capitalists (Kaplan and Stromberg [2002]). The patterns here were similar, though we see a slightly greater representation of founders and managers on the boards.

In Table 3, we include a number of representative provisions that reflect some of the interesting differences with the private equity contracts typically observed in the U.S. Two aspects are particularly interesting. First, the lack of liquid capital markets in these countries means that the choice of exit option is very different from the U.S. For example, many private equity contracts in our sample of emerging market deals implicitly—but often explicitly—state that the preferred exit option is a “sale to a strategic buyer.” In eight cases, a potential strategic buyer even invests along side the private equity group in the financing transaction. Also, we see a much greater tendency to rely on large dividend payments out of profits when exit through an IPO or sale is not possible.

A second interesting feature is the reliance on parent companies to either enforce or back up deals. In many developing countries, ownership structures of firms are much more complicated and pyramidal than in the U.S. Often a company is ultimately

controlled by a parent company that holds important control rights (but not always cash flow rights of similar magnitude). We see that in a few instances private equity groups use the parent companies to back the loans of the subsidiary. Moreover, in seven cases we see that the parent provides a potential exit strategy for the private equity group: the investors are allowed to put back the stock they own to the *parent*, whose shares are probably much more liquid (and potentially less volatile).

### *B. Security Types*

We begin the econometric analyses by examining the types of securities employed. Throughout the paper, we employ a similar structure: we begin by analyzing the provisions in the transactions with dummy variables for each industry. We then add controls for the year of the transaction and other independent variables of interest.<sup>10</sup> While we believe that the use of these control variables is necessary to avoid potential biases, they come at a cost: the large numbers of dummy variables play havoc with the results when we employ a non-linear specification. Thus, while the univariate nature of

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<sup>10</sup>We use dummy variables for the observations in three time periods in the reported regressions: the years 1993 to 1997, 1998 to 2000, and 2001 to 2003. These periods correspond respectively to the years when many institutions made initial investments into private equity funds focusing on leveraged buyouts in developing nations, the growth of venture capital funding in these nations, and the recent sharp fall-off in private equity activity there. The results are robust to the use of dummy variables for each year, as well as to the use of controls measuring the annual level of private equity fundraising worldwide and of foreign direct investment into developing nations. Given the modest sample size in the current draft, we do not have enough variation between deals of the same partnerships to obtain meaningful estimates when we add dummy variable for the private equity groups to each regression. We hope that we will be able to measure these effects more precisely once we obtain our final, larger sample.

many of the dependent variables might suggest the use of a logit specification, we will simply report ordinary least squares results.

Throughout, we employ logarithms of the non-univariate dependent and independent variables. Our rationale is that the impact of many of the measures is likely to be non-linear. For instance, the shift from \$500 to \$600 in per capita GNP is likely to be far more meaningful than one from \$8500 to \$8600.

Panel A of Table 4 reveals that common stock is less frequently employed in nations with a British legal origin. This pattern continues to hold when we add controls for whether the private equity group is based in a common law country: thus, the pattern is not simply a consequence of the fact that investments in common law countries are disproportionately made by funds based in nations such as the United States. Meanwhile, groups based in the U.S. and U.K. use common stock consistently less often. A similar pattern is seen in the use of straight debt in Panel B: such a security is much less frequently employed in common law countries and by U.S.- and U.K.-based funds.

The reverse pattern is seen in Panel C of Table 4, where we examine the use of preferred stock. This security, so ubiquitous in the U.S., is disproportionately seen in nations with British legal origins and in transactions undertaken by American and British private equity groups. The security is also employed more frequently in cases where the rule of law is better established, in countries with French legal origins, and where GNP per capita is higher.

Panel D looks at the use of contingent securities, where the size of the equity stakes that the private equity group receives depends on the performance of the firm. These securities are again more common in countries with a common law legal tradition and in transactions by U.K.- and U.S.-based private equity groups. They are less frequently seen in nations with French legal origins.

Panel E looks at the presence of complex restrictions on these contingent securities, such as the presence of caps and floors on the conversion ratios. While the results are rarely significant, they suggest that more complex securities are seen in common law countries and those with a higher per capita GNP.

### *C. Financing Characteristics*

We then consider the characteristics of the financial transaction, such as the size and timing of the financing and the associated valuation.

When we look at the size of the financing in Panel A of Table 5, we see that (not surprisingly) investments in firms with higher sales and in nations with greater per capita GNP involve larger disbursements of capital. In addition, transactions in common law countries, those with a stronger rule of law, and by private equity groups based in the

U.S. and U.K. are larger in magnitude, though the effects are weaker and less consistent.<sup>11</sup>

When we turn to valuations,<sup>12</sup> we find again that firms with larger revenues are associated with higher valuations. Both countries rooted in the British and French legal families are assigned higher valuations, though the magnitude of the effect is considerably larger in the common law nations. Higher GNP per capita and American and British private equity investors are associated as well with higher valuations.<sup>13</sup>

Panel C examines whether the financing is provided up-front, or instead doled out in two or more tranches. (This measure only refers to the individual financing round, rather than a series of financings. Thus, a venture capital financing provided in one installment would be recorded as not entailing a follow-on financing, even if there was a

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<sup>11</sup>In the first two regressions, we control as well for the transaction type, since the financing entailed in, for instance, a venture capital and leveraged buyout investment may differ dramatically.

<sup>12</sup>Following Gompers and Lerner [2000], we examine the “post-money” valuation: the valuation of the firm after the completion of the financing transaction. As noted above, the results remain robust when we add additional controls for the characteristics of the firms and transactions.

<sup>13</sup>Our interpretation of these results must be somewhat cautious since we only observe realized transactions. Common law countries might have better protection of shareholder rights and we would therefore expect to see higher valuations for a given investment. Investments that are completed in non-common law countries, however, might be particularly promising. Thus, there may not be as many differences in the intensive margin, *i.e.* the observed amount of financing, as along the extensive margin (the number and types of deals that are done). As discussed before, it is impossible for us to construct an exhaustive sample of deals for these countries, which makes it very difficult to draw any conclusions about the extensive margin.

possibility that another financing round would occur at some subsequent point.) Larger firms were more likely to have a contingent structure, while those by private equity groups based in the U.K. and U.S. and in French legal family countries were less likely to.

#### *D. Allocation of Equity*

We then analyze the allocation of equity ownership. We look at the allocation of ownership when the private equity group has its largest and smallest contractually specified holdings, as well as the magnitude of the differences in the holdings of the private equity investors under the various scenarios.

Panels A and B of Table 6 examine the allocation of control of the company's equity to the private equity group. The dependent variable is a dummy that takes on the value one if the private equity investors have at least 50% of the equity, calculated at their maximum and minimum stake respectively. (The size of the stake can vary, whether due to contingent clauses such as those analyzed above or the vesting of founder and manager shares.)

The key findings are as follows:

- When the rule of law is more established, private equity groups are less likely to have control of the firms' equity in the maximum-stake scenario as well as the minimum stake scenario. This finding was very consistent with a theme that emerged from our conversations with private equity groups. The groups

highlighted that many of their initial losses had stemmed from investments in nations with poorly defined property rights or a limited ability to enforce these rights. In particular, they found that contractual rights for minority investors often offered little protection, because they simply could not be enforced. Over time, they placed much greater emphasis on having controlling blocks of the equity of firms in such nations, particularly during periods when the performance was troublesome.

- Second, investments in nations with a common law legal tradition are more likely to have control under the maximum scenario, as well as under the minimum control scenario. But private equity groups based in the U.K. and U.S. are somewhat less consistent in their reliance on controlling stakes. They are less likely to have a controlling stakes in the minimum control scenario but more likely to have control stakes in the maximum control scenario. This could suggest a greater reliance of these groups to use variation in ownership control as an incentive mechanism for founders and managers, as well as a protection in bad states. This idea is also reconfirmed in the analysis of differences between maximum and minimum ownership stakes in Panel C of Table 6. Again we find that U.K. legal origin countries have much greater variation between the maximum and minimum control stakes than civil law countries, and so do private equity groups that are based in common law countries.
- Finally, investments in countries with a higher GNP per capita are more likely to allow the private equity group to have control in the maximum-stake scenario.



Panel C of Table 6 analyzes the magnitude of the difference between the largest and smallest ownership stake assigned to the private equity group. Nations with a stronger rule of law are less likely to have substantial differences in equity holdings, consistent with the discussion above. The differences were larger in investments in nations with British legal origins, as well as when GNP per capita is higher and when a U.K.- or U.S.-based private equity group is present, which are again largely consistent with the patterns seen in Panel A and B. In French legal origin nations, the differences are smaller. One possible explanation is that, all else being equal, the greater prerogatives that equity-holders enjoy in common law nations lead to more reliance on these holdings as a control mechanism.

#### *E. Control Rights*

The final four tables analyze what we term control rights: provisions that affect the prerogatives of the private equity investors or the managers they finance. Here several consistent themes emerge. Transactions in common law countries are more likely to offer protections for the private equity investors. Private equity groups based in the U.K. and U.S. demand more protections than others. Finally, deals in wealthier nations are generally more likely to have investor protections.

These provisions take several different forms:

- First, specific clauses analyzed in Table 7 govern the private equity groups' prerogatives: the right to have some compensation if a subsequent financing is done at a lower price (anti-dilution provisions), more draconian provisions that

either ban financing at a lower valuation outright or else call for major adjustment in ownership, the ability to “put” one’s shares to the company after a certain date, and provisions for automatic conversion. (Lawyers typically interpret the final term as protecting the lead private equity investor against individual or smaller private equity investors, who may seek to “hold up” an IPO or acquisition by refusing to convert their shares.)

- Table 8 looks at the extent to which the ability of founders and management to liquidate their stake is constrained, either through provisions regarding vesting (the staged provision of shares to management) or explicit restrictions on stock sales. Because we did not always receive the agreements between the companies and managers from the private equity groups, we can measure this phenomenon in a less thorough manner than the other transaction characteristics.
- Table 9 looks at the structure of the board as specified in the stock purchase agreements, examining the overall board size as well as the seats assigned to the private equity group and founders and managers.
- Finally, Table 10 looks at super-majority provisions. Provisions regarding supermajority approval (where some fraction greater than one-half of the members must approve a decision) appear nineteen different places in these agreements. We score these clauses from zero to three, with a higher score representing a more stringent supermajority clause.<sup>14</sup> We analyze these scores in

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<sup>14</sup>Zero represents a case with no such provision. Cases where a supermajority of the shareholders must approve the step are coded as one; instances where a supermajority of the board must approve are coded as two. Three denotes cases where a supermajority of both equity-holders and board must approve.

two ways: we simply sum these separate scores and also conduct a factor analysis. We report here the analysis using the most consistently significant of the three factors.

Several results emerge from the analysis:

- Investments in nations with a common law tradition tend to have more protections, as seen in the analyses of the anti-dilution provisions (both all provisions and the strongest ones), redemption rights, and supermajority provisions.
- One possible interpretation of the finding that larger boards with greater representation of founders and managers were found in common law nations is as follows: the effectiveness of other methods of contractually enforcing investor member rights is sufficient large that the addition of other board members, and the possible loss of control entailed, is less critical.
- Higher per capita GNP generally leads to more investor protection. For instance, wealthier nations are more likely to have some degree of protection against anti-dilution (but less likely to have the strongest provisions), automatic conversion provisions, and supermajority protections.
- There are few consistent patterns relating to the rule of law index. For instance, nations where the rule of law is strong are less likely to have supermajority protection when measured through the sum of provisions, but are weakly more likely to have these provisions when we use the factor scores.

#### *F. Correlation of Different Contract Parts*

Finally, we investigate the correlation structure between different parts of the individual contracts. Our goal is to understand whether security structure, ownership stake, and other control provisions are used as complements or substitutes in financial contracting. For example, we could imagine that deals where the PEG takes a common stock position rely more heavily on having a controlling ownership stake. In that case, even though the security structure *per se* does not give the PEG as much control rights as a preferred security would, the fact that the group has the majority ownership stake could be seen as an alternative control mechanism.

Table 11 shows a number of results from this exercise. First, we see that while the use of debt and debt-like securities is positively related to the presence of common shares, we find a negative correlation between these two securities and preferred stock (such as straight preferred, convertible preferred, *etc.*). We also find that contracts that are dominated by either debt or common share securities are less likely to employ other control provisions such as anti-dilution provisions or redemption rights. Moreover, they are also less likely to incorporate exit provisions such as automatic conversion provisions.

Second, and in contrast to the common share deals, we find that contracts that rely on preferred security structure commonly employ these other control provisions much more frequently. These results suggest that contracts either seem to follow a structure that is fairly reminiscent of US contracts—*i.e.*, preferred type securities accompanied by

a number of control provisions—or rely on debt or common stock securities without many other control provisions.

Finally, we analyze the correlation of the ownership structure with these different features of the transaction. Interestingly, we find a strong positive correlation between the maximum ownership stakes that the PEG obtains and the use of common shares or debt. The correlation with between the maximum ownership stake and the use of preferred securities is positive but rather small. On the other hand, we also see from Table 11 that contracts which rely more heavily on control through large ownership stakes are less likely to use other control provisions such as anti-dilution provisions or redemption rights. If we look at the correlation of a PEG's minimum ownership stake with the other contract parts (not reported), the difference between common and preferred stock deals becomes even stronger.

We also investigate whether these correlation structure differ systematically between common law and civil law countries (not reported). One striking difference is that none of the deals in common law countries involve straight common stock securities. By way of contrast, civil law countries rely more heavily on debt and common stock deals, but use preferred stock to a lesser degree. Most of the other correlations, however, are parallel to the structure in the overall sample.

Overall, these results suggest that contracts differ systematically in the way they aim to provide investors with control rights. While preferred security structures and the

use of control provisions such as anti-dilution clauses are generally used as complements, common share deals and debt-like securities rely more heavily on controlling ownership stakes, and much less frequently on other control provisions.

## **6. Conclusions**

This paper analyzes a sample of 167 transactions from a wide variety of private equity groups in developing countries. We assess deal structures, and how they vary with the nature of the nations in which the investments are made. We find a number of patterns:

- Unlike in the United States, where the use of convertible preferred securities is ubiquitous, in developing nations a much broader array of securities are employed. Protections of private equity investor rights that are standard in the United States are encountered far less frequently.
- The choice of security employed appears to be driven by the circumstances of the private equity group and the nation. Investments in common law nations and by private equity groups based in the U.S. and U.K. are considerably less likely to employ common stock or straight debt, and more likely to employ preferred stock.
- In nations where the rule of law is less well established, private equity groups emphasize equity protection. They are likely to make the size of their equity stakes contingent on the performance of the company and to have the majority of the firm's equity if the investment encounters difficulties.
- Larger transactions with higher valuations are seen in common law countries.

- Transactions in common law nations are generally associated with more contractual protections for the private equity group.
- Board structures are little different from the U.S. Transactions in common law nations have greater founder and manager board representation, suggesting that board composition may substitute for contractual provisions.
- In emerging markets (where stock markets provide much less liquidity), we observe a much greater reliance on trade sales and even large-scale dividend payments as exit strategies.

As we argue in the introduction, these results simultaneously are consistent with and extend the findings of the law and finance literature, which has largely focused on public firms.

This analysis, it should be noted, leaves many questions unanswered about private equity in developing countries. Foremost among these is the apparently disappointing returns that these investments have enjoyed and the declining share of all private equity investments that they represent. From where have the difficulties encountered by private equity investments in developing countries sprung? Are these a function of the general macroeconomic troubles that led to public equity investors in many developing countries to experience low returns during much of the 1990s? Or do the difficulties stem from the differences in transaction structures from the U.S. template that we have highlighted above?<sup>15</sup>

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<sup>15</sup>A related issue is the similarities and differences between the structure of private and public equity investments in developing nations. The work of Bergman and Nicolaievsky

A second important topic for further research relates to the role of government programs. As noted above, national governments and multinational development organizations have made substantial investments to stimulate the growth of private equity. These initiatives have taken many forms, from direct investments in entrepreneurial firms to the provision of subsidies to private equity groups. How effective have these efforts been? Do any approaches appear to have been particularly successful?

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[2003] highlights the differences between these contracts in the Mexican setting. A cross-national analysis of these differences would be a rewarding analysis.



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**Table 1—Construction of sample.** This table summarizes the key features associated with the construction of the sample of 167 private equity transactions.

<i>Private Equity Group</i>		<i>Year of Deal</i>		<i>Deal Type</i>		<i>Industry of Firm</i>	
Group 1	8	1987	2	Buyout	28	Distribution/Retail	14
Group 2	6	1988	2	Corporate Acquisition	6	Finance	10
Group 3	6	1992	3	Distress	4	Food	22
Group 4	5	1993	4	Expansion	76	Health Care	6
Group 5	3	1994	2	IPO	11	Information Technology	17
Group 6	3	1995	5	Privatization	4	Internet	9
Group 7	10	1996	6	Venture Capital	38	Manufacturing	17
Group 8	8	1997	10			Media	5
Group 9	6	1998	20			Natural Resources	8
Group 10	6	1999	25			Real Estate	4
Group 11	11	2000	30			Services	12
Group 12	3	2001	34			Software	10
Group 13	2	2002	21			Telecom	12
Group 14	4	2003	3			Other	20
Group 15	10						
Group 16	8						
Group 17	6						
Group 18	5						
Group 19	10						
Group 20	13						
Group 21	14						
Group 22	8						
Group 23	5						
Group 24	7						

**Table 2—Characteristics of developing country private equity transactions.** The sample consists of 167 investments in developing countries by private equity groups (PEGs). The first panel describes the features of the transactions; the second panel, the features of the nation and the private equity group involved in the transaction. We do not record the medians and standard deviations of the dummy variables.

<i>Panel A: Setting of Transactions</i>					
	<u>Mean</u>	<u>Median</u>	<u>Standard Dev</u>	<u>Minimum</u>	<u>Maximum</u>
Per capita gross national product	2142	1743	2561	181	12368
Logarithm of rule of law index	0.19	0.22	0.63	-1.25	1.85
English legal family nation	0.21			0	1
French legal family nation	0.28			0	1
Socialist legal family country	0.47			0	1
U.K. or U.S.-based private equity group	0.56			0	1
<i>Panel B: Nature of Transactions</i>					
	<u>Mean</u>	<u>Median</u>	<u>Standard Dev</u>	<u>Minimum</u>	<u>Maximum</u>
Size of financing (1997 \$MMs)	23.11	2.93	78.12	0.17	730.53
Implied valuation (1997 \$MMs)	94.43	9.46	380.22	0.45	691.58 <sup>a</sup>
Follow-on financing as part of deal	0.17			0	1
Contingent valuation	0.11			0	1
Straight debt	0.18			0	1
Convertible debt	0.13			0	1
Common stock	0.54			0	1
Straight preferred stock	0.08			0	1
Participating preferred stock	0.03			0	1
Convertible preferred stock	0.18			0	1
Warrants	0.06			0	1
Contingent equity	0.34			0	1
Caps and floors	0.16			0	1
PEG's maximum equity stake	0.67	0.42	0.57	0	1
PEG's minimum equity stake	0.45	0.36	0.48	0	1
Difference in PEG ownership	0.14	0.00	0.24	0	1
PEG has control when maximum stake	0.37			0	1
PEG has control when minimum stake	0.29			0	1
Anti-dilution provisions	0.24			0	1
Automatic conversion provisions	0.26			0	1
PEG has redemption rights	0.28			0	1
PEG protected against down rounds	0.10			0	1
Vesting of founders	0.05			0	1
Restrictions on founder stock sales	0.49			0	1
Maximum board size	6.30	6	1.98	3	11
Minimum board size	5.40	5	1.95	3	11
Maximum PEG board seats	2.66	2	1.89	0	9
Minimum PEG board seats	1.35	1	1.24	0	6
Maximum founder/manager board seats	3.22	3	1.87	0	7
Minimum founder/manager board seats	2.47	2	1.72	0	6
Supermajority sum	18.47	15	12.98	0	57
Supermajority factor 1	0.00	-0.78	3.42	-4.58	8.05
Supermajority factor 2	0.00	0.07	1.16	-2.53	4.61
Supermajority factor 3	0.00	-0.04	1.02	-4.11	3.29

<sup>a</sup>The size of the financing is greater than the valuation in the largest transaction (a leveraged buyout which entailed the purchase of all of the firm's equity) because part of the financing proceeds were used to cover fees to investment bankers, lawyers, and others.

**Table 3—Description of non-standard characteristics of developing country private equity transactions.** The sample consists of 167 investments in developing countries by private equity groups (PEGs).

<i>Panel A: Exit Provisions</i>	
	<u>Frequency</u>
Contract specifies trade sale to strategic buyer as exit goal, not IPO	28
If exit is not reached within stated time, firm has to pay annual dividends > 50% of profits	14
PEG has a put that can be triggered at any time if there are disagreements with management	13
PEG is investing along side a strategic buyer who might ultimately buy the firm	8
If exit is not reached within stated time, PEG can put back money to parent company of firm	7
Contract pre-specifies an “arbitrator”, for example an investment bank, in case of discrepancies between shareholders to avoid delays in the courts	4
If exit is not reached in stated time, PEG can put back shares at a price agreed upon by at least three “reputable” investment banks	3
<i>Panel B: Financing Provisions</i>	
	<u>Frequency</u>
Debt converts to equity if firm defaults	9
PEG issues debt that is backed by guarantees of the parent company of a firm	6
“Forgivable” debt: if firms reaches certain earnings targets, loan is converted into 0% equity	4
Majority shareholder of company issues the bond, not company, to avoid political constraints	3
Government debt becomes subordinate to equity if the firm defaults	2
<i>Panel C: Anti-Dilution Provisions</i>	
	<u>Frequency</u>
No anti-dilution rights per se, but existing investors have to approve issuance of new shares	15
PEG equity stake remains unchanged independent of valuation in next round	5
<i>Panel D: Other Provisions</i>	
	<u>Frequency</u>
Business dealings with firms owned by family members of the founders/managers have to be approved by PEG	5
Founder family members agree not to be involved in competing business unless approved by the PEG	4

**Table 4—Regression analyses of security type in developing country private equity transactions.** The sample consists of 167 investments in developing countries by private equity groups (PEGs). The dependent variables are dummies denoting whether common stock was employed in the transaction, straight debt was employed in the transaction, preferred stock was employed in the transaction, the equity stake is contingent on the performance of the firm, and the presence of caps and/or floors on the payouts to the PEGs. Independent variables include the logarithms of an index of the rule of law and per capita gross national product, and dummy variables denoting nations with British or French legal origins and funds based in the U.K. or U.S. All regressions employ ordinary least squares specifications. Standard errors are in brackets.

<i>Panel A: Use of Common Stock</i>				
Rule of law index	0.02 [0.09]	0.03 [0.09]	0.01 [0.10]	0.01 [0.10]
British legal origins	-0.14 ***[0.06]	-0.16 ***[0.06]	-0.16 ***[0.07]	-0.16 **[0.08]
French legal origins			-0.08 [0.09]	-0.06 [0.09]
GNP per capita	-0.05 [0.07]	-0.11 *[0.07]	-0.09 [0.08]	-0.07 [0.08]
U.K. or U.S. based PEG				-0.14 ***[0.07]
Industry dummies	Y	Y	Y	Y
Year dummies	N	Y	Y	Y
Number of observations	166	166	166	166
Adjusted R <sup>2</sup>	0.12	0.14	0.14	0.21
<i>Panel B: Use of Straight Debt</i>				
Rule of law index	-0.04 [0.06]	-0.04 [0.06]	-0.02 [0.07]	-0.02 [0.07]
British legal origins	-0.13 ***[0.06]	-0.13 ***[0.06]	-0.11 **[0.06]	-0.11 **[0.06]
French legal origins			0.13 ***[0.05]	0.15 ***[0.05]
GNP per capita	0.05 *[0.04]	0.04 [0.05]	0.01 [0.05]	0.01 [0.05]
U.K. or U.S. based PEG				-0.12 ***[0.05]
Industry dummies	Y	Y	Y	Y
Year dummies	N	Y	Y	Y
Number of observations	166	166	166	166
Adjusted R <sup>2</sup>	0.12	0.14	0.14	0.21
<i>Panel C: Use of Preferred Stock</i>				
Rule of law index	0.31 ***[0.07]	0.19 ***[0.08]	0.22 ***[0.09]	0.20 ***[0.09]
British legal origins	0.23 ***[0.11]	0.24 **[0.13]	0.57 ***[0.21]	0.47 ***[0.18]
French legal origins			0.40 ***[0.13]	0.38 ***[0.13]
GNP per capita	0.07 *[0.06]	0.08 **[0.05]	0.15 *[0.09]	0.10 *[0.06]
U.K. or U.S. based PEG				0.36 ***[0.11]
Industry dummies	Y	Y	Y	Y
Year dummies	N	Y	Y	Y
Number of observations	166	166	166	166
Adjusted R <sup>2</sup>	0.06	0.09	0.13	0.14

<i>Panel D: Contingent Equity Stakes</i>				
Rule of law index	0.74 [0.63]	0.75 [0.67]	0.78 [0.69]	0.79 [0.67]
British legal origins	0.13 ***[0.06]	0.16 ***[0.06]	0.17 ***[0.07]	0.18 ***[0.08]
French legal origins			-0.18 ***[0.08]	-0.18 ***[0.08]
GNP per capita	0.05 [0.08]	0.07 [0.08]	0.06 [0.09]	0.11 [0.09]
U.K. or U.S. based PEG				0.11 *[0.07]
Industry dummies	Y	Y	Y	Y
Year dummies	N	Y	Y	Y
Number of observations	166	166	166	166
Adjusted R <sup>2</sup>	0.17	0.19	0.19	0.21
<i>Panel E: Use of Caps and/or Floors</i>				
Rule of law index	0.22 [0.21]	0.26 [0.24]	0.21 [0.25]	0.17 [0.24]
British legal origins	0.29 **[0.14]	0.18 [0.16]	0.17 [0.19]	0.17 [0.19]
French legal origins			0.07 [0.12]	0.07 [0.13]
GNP per capita	0.11 **[0.06]	0.08 [0.07]	0.09 [0.08]	0.08 [0.07]
U.K. or U.S. based PEG				0.04 [0.10]
Industry dummies	Y	Y	Y	Y
Year dummies	N	Y	Y	Y
Number of observations	166	166	166	166
Adjusted R <sup>2</sup>	0.07	0.08	0.08	0.09

\*=Significant at the 10% level; \*\*=significant at the 5% level; \*\*\*=significant at the 1% level.

**Table 5—Regression analyses of financing size and valuation in developing country private equity transactions.** The sample consists of 167 investments in developing countries by private equity groups (PEGs). The dependent variables are the logarithms of the size of the financing and the implied “post-money” valuation of the transaction, and a dummy denoting whether the financing provides some of the capital in a follow-on transaction. Independent variables include the logarithms of sales in the year before the transaction, an index of the rule of law, and per capita gross national product, and dummy variables denoting nations with British or French legal origins and funds based in the U.K. or U.S. The financing size, valuation, and sales figures are all in millions of 1997 dollars. All regressions employ ordinary least squares specifications. Standard errors are in brackets.

<i>Panel A: Size of Financing</i>				
Sales	0.33 ***[0.08]	0.34 ***[0.09]	0.27 ***[0.10]	0.36 ***[0.11]
Rule of law index	0.79 *[0.55]	0.75 *[0.59]	0.58 [0.52]	0.60 [0.50]
British legal origins	0.90 **[0.51]	0.69 [0.61]	0.78 *[0.57]	0.72 [0.70]
French legal origins			0.51 [0.46]	0.50 [0.48]
GNP per capita	1.27 ***[0.44]	1.36 ***[0.46]	1.51 ***[0.44]	1.38 ***[0.52]
U.K. or U.S. based PEG				0.69 *[0.40]
Industry dummies	Y	Y	Y	Y
Deal type dummies	Y	Y	Y	Y
Year dummies	N	Y	Y	Y
Number of observations	126	126	126	126
Adjusted R <sup>2</sup>	0.33	0.35	0.35	0.34
<i>Panel B: Implied Valuation</i>				
Sales	0.38 ***[0.12]	0.37 ***[0.12]	0.37 ***[0.13]	0.34 ***[0.15]
Rule of law index	1.48 *[0.82]	0.88 [0.98]	0.81 [1.09]	0.84 [0.99]
British legal origins	2.15 ***[0.88]	2.51 ***[0.89]	2.47 ***[0.90]	2.44 ***[0.92]
French legal origins			0.96 ***[0.46]	0.94 ***[0.42]
GNP per capita	0.87 *[0.65]	0.85 *[0.66]	0.84 [0.79]	0.89 [0.81]
U.K. or U.S. based PEG				0.67 *[0.50]
Industry dummies	Y	Y	Y	Y
Deal type dummies	Y	Y	Y	Y
Year dummies	N	Y	Y	Y
Number of observations	126	126	126	126
Adjusted R <sup>2</sup>	0.40	0.44	0.45	0.47
<i>Panel C: Presence of Follow-On Financing</i>				
Sales	0.05 [0.08]	0.05 [0.04]	0.07 **[0.04]	0.07 *[0.04]
Rule of law index	0.19 [0.27]	0.39 [0.23]	0.12 [0.25]	0.16 [0.23]
British legal origins	0.05 [0.08]	0.12 [0.08]	0.14 [0.09]	0.14 [0.08]
French legal origins			-0.13 **[0.07]	-0.13 *[0.07]
GNP per capita	0.06	0.03	0.13	0.13



	[0.08]	[0.08]	[0.09]	[0.08]
U.K. or U.S. based PEG				-0.06 **[0.03]
Industry dummies	Y	Y	Y	Y
Year dummies	N	Y	Y	Y
Number of observations	166	166	166	166
Adjusted R <sup>2</sup>	0.09	0.10	0.12	0.14

\*=Significant at the 10% level; \*\*=significant at the 5% level; \*\*\*=significant at the 1% level.

**Table 6—Regression analyses of equity ownership in developing country private equity transactions.**

The sample consists of 167 investments in developing countries by private equity groups (PEGs). The dependent variables are dummies denoting whether the PEG has control of the firm's equity when it has its maximum and minimum contractually specified share of the equity, and the difference in the equity ownership stake in these two scenarios. Independent variables include the logarithms of an index of the rule of law and per capita gross national product, and dummy variables denoting nations with British or French legal origins and funds based in the U.K. or U.S. All regressions employ ordinary least squares specifications. Standard errors are in brackets.

<i>Panel A: Does PEG Have Control When Maximum Stake</i>				
Rule of law index	-0.15 ***[0.06]	-0.26 ***[0.08]	-0.26 ***[0.09]	-0.26 ***[0.10]
British legal origins	0.16 ***[0.07]	0.14 *[0.08]	0.14 *[0.08]	0.14 *[0.09]
French legal origins			0.08 [0.08]	0.08 [0.10]
GNP per capita	0.19 ***[0.08]	0.20 ***[0.09]	0.20 **[0.09]	0.21 **[0.10]
U.K. or U.S. based PEG				0.12 ***[0.05]
Industry dummies	Y	Y	Y	Y
Year dummies	N	Y	Y	Y
Number of observations	126	126	126	126
Adjusted R <sup>2</sup>	0.13	0.15	0.17	0.18
<i>Panel B: Does PEG Have Control When Minimum Stake</i>				
Rule of law index	-0.18 ***[0.07]	-0.16 ***[0.08]	-0.13 *[0.08]	-0.13 *[0.08]
British legal origins	0.15 ***[0.06]	0.15 **[0.07]	0.13 *[0.08]	0.13 *[0.08]
French legal origins			0.29 [0.26]	0.30 [0.31]
GNP per capita	0.12 **[0.06]	0.13 *[0.07]	0.13 *[0.07]	0.13 *[0.07]
U.K. or U.S. based PEG				-0.26 ***[0.11]
Industry dummies	Y	Y	Y	Y
Year dummies	N	Y	Y	Y
Number of observations	126	126	126	126
Adjusted R <sup>2</sup>	0.11	0.12	0.13	0.12
<i>Panel C: Difference Between Maximum and Minimum PEG Stake</i>				
Rule of law index	-0.13 ***[0.05]	-0.12 **[0.06]	-0.12 **[0.06]	-0.12 *[0.07]
British legal origins	0.12 ***[0.05]	0.13 ***[0.06]	0.13 ***[0.06]	0.13 **[0.07]
French legal origins			-0.05 *[0.04]	-0.04 [0.04]
GNP per capita	0.06 ***[0.03]	0.07 **[0.04]	0.07 **[0.04]	0.07 *[0.04]
U.K. or U.S. based PEG				0.05 **[0.02]
Industry dummies	Y	Y	Y	Y
Year dummies	N	Y	Y	Y
Number of observations	126	126	126	126
Adjusted R <sup>2</sup>	0.14	0.16	0.16	0.14

\*=Significant at the 10% level; \*\*=significant at the 5% level; \*\*\*=significant at the 1% level.

**Table 7—Regression analyses of control rights in developing country private equity transactions.**

The sample consists of 167 investments in developing countries by private equity groups (PEGs). The dependent variables are dummies denoting whether the PEG group has anti-dilution protection, strong protection against down financing rounds, redemption rights, and automatic conversion requirements. Independent variables include the logarithms of an index of the rule of law and per capita gross national product, and dummy variables denoting nations with British or French legal origins and funds based in the U.K. or U.S. All regressions employ ordinary least squares specifications. Standard errors are in brackets.

<i>Panel A: Anti-Dilution Protection</i>				
Rule of law index	0.12 [0.09]	0.15 *[0.09]	0.17 *[0.10]	0.02 [0.10]
British legal origins	0.31 ***[0.08]	0.34 ***[0.09]	0.37 ***[0.10]	0.34 ***[0.10]
French legal origins			0.13 *[0.08]	0.12 *[0.08]
GNP per capita	0.09 ***[0.04]	0.09 *[0.05]	0.10 **[0.05]	0.09 *[0.06]
U.K. or U.S. based PEG				0.30 ***[0.09]
Industry dummies	Y	Y	Y	Y
Year dummies	N	Y	Y	Y
Number of observations	166	166	166	166
Adjusted R <sup>2</sup>	0.14	0.17	0.18	0.20
<i>Panel B: Strong Protection Against “Down” Financing Rounds</i>				
Rule of law index	0.06 [0.15]	0.06 [0.17]	0.05 [0.18]	0.05 [0.17]
British legal origins	0.30 ***[0.10]	0.24 ***[0.11]	0.24 **[0.13]	0.22 *[0.12]
French legal origins			0.03 [0.08]	0.02 [0.08]
GNP per capita	-0.10 ***[0.05]	-0.10 ***[0.05]	-0.10 **[0.06]	-0.10 ***[0.05]
U.K. or U.S. based PEG				0.02 [0.07]
Industry dummies	Y	Y	Y	Y
Year dummies	N	Y	Y	Y
Number of observations	166	166	166	166
Adjusted R <sup>2</sup>	0.16	0.20	0.19	0.19
<i>Panel C: Redemption Rights</i>				
Rule of law index	-0.36 *[0.28]	-0.31 [0.32]	-0.42 *[0.34]	-0.42 *[0.35]
British legal origins	0.40 **[0.21]	0.42 **[0.23]	0.54 ***[0.25]	0.59 ***[0.24]
French legal origins			0.08 [0.07]	0.08 [0.07]
GNP per capita	0.07 [0.08]	0.07 [0.10]	0.10 [0.11]	0.09 [0.09]
U.K. or U.S. based PEG				0.40 ***[0.13]
Industry dummies	Y	Y	Y	Y
Year dummies	N	Y	Y	Y
Number of observations	166	166	166	166
Adjusted R <sup>2</sup>	0.05	0.05	0.05	0.06
<i>Panel D: Automatic Conversion</i>				
Rule of law index	-0.29	-0.18	-0.40	-0.27

	[0.25]	[0.28]	[0.30]	[0.27]
British legal origins	0.21	0.21	0.34	0.23
	[0.17]	[0.19]	*[0.22]	[0.19]
French legal origins			0.27	0.27
			**[0.14]	**[0.14]
GNP per capita	0.13	0.10	0.17	0.12
	**[0.07]	[0.09]	**[0.09]	*[0.08]
U.K. or U.S. based PEG				0.30
				***[0.11]
Industry dummies	Y	Y	Y	Y
Year dummies	N	Y	Y	Y
Number of observations	166	166	166	166
Adjusted R <sup>2</sup>	0.04	0.05	0.07	0.08

\*=Significant at the 10% level; \*\*=significant at the 5% level; \*\*\*=significant at the 1% level.

**Table 8—Regression analyses of restrictions on founders' and managers' equity stakes in developing country private equity transactions.** The sample consists of 81 investments in developing countries by private equity groups (PEGs). The dependent variables are dummies denoting if the shares of the firms' founders and managers must vest and if there are restrictions on securities sales by founders and managers. Independent variables include the logarithms of an index of property rights and per capita gross national product, and dummy variables denoting nations with British or French legal origins and funds based in a common law nation. All regressions employ ordinary least squares specifications. Standard errors are in brackets.

<i>Panel A: Vesting of Founder and Manager Stock</i>				
Property rights index	0.01	0.02	0.07	0.03
	[0.14]	[0.15]	[0.16]	[0.16]
British legal origins	0.01	0.05	-0.01	0.06
	[0.09]	[0.10]	[0.12]	[0.10]
French legal origins			-0.06	-0.05
			[0.07]	[0.07]
GNP per capita	0.01	-0.02	-0.04	-0.03
	[0.04]	[0.05]	[0.05]	[0.05]
Common law based PEG				0.07
				[0.06]
Industry dummies	Y	Y	Y	Y
Year dummies	N	Y	Y	Y
Number of observations	77	76	76	76
Adjusted R <sup>2</sup>	-0.06	0.02	0.02	0.03
<i>Panel B: Restrictions on Sales of Founder and Manager Stock</i>				
Property rights index	-0.50	-0.62	-0.63	-0.63
	*[0.29]	*[0.32]	*[0.35]	*[0.34]
British legal origins	0.13	0.06	0.06	0.07
	[0.19]	[0.22]	[0.26]	[0.25]
French legal origins			0.004	0.004
			[0.16]	[0.18]
GNP per capita	-0.02	-0.01	-0.01	-0.01
	[0.09]	[0.10]	[0.10]	[0.11]
Common law based PEG				0.02
				[0.14]
Industry dummies	Y	Y	Y	Y
Year dummies	N	Y	Y	Y
Number of observations	77	76	76	76
Adjusted R <sup>2</sup>	0.06	0.07	0.05	0.06

\*=Significant at the 10% level; \*\*=significant at the 5% level; \*\*\*=significant at the 1% level.

**Table 9—Regression analyses of board seats in developing country private equity transactions.** The sample consists of 167 investments in developing countries by private equity groups (PEGs). The dependent variables are the logarithms of the maximum number of seats on the board, as well as the maximum assigned the founders and managers and the PEG. Independent variables include the logarithms of an index of the rule of law and per capita gross national product, and dummy variables denoting nations with British or French legal origins and funds based in the U.K. or U.S. All regressions employ ordinary least squares specifications. Standard errors are in brackets.

<i>Panel A: Total Maximum Board Seats</i>				
Rule of law index	0.25 [0.24]	0.26 [0.27]	0.26 [0.30]	0.29 [0.30]
British legal origins	0.25 ***[0.09]	0.26 ***[0.09]	0.26 ***[0.08]	0.28 ***[0.09]
French legal origins			-0.07 **[0.04]	-0.07 *[0.05]
GNP per capita	0.08 [0.09]	0.06 [0.15]	0.08 [0.16]	0.09 [0.17]
U.K. or U.S. based PEG				0.35 ***[0.13]
Industry dummies	Y	Y	Y	Y
Year dummies	N	Y	Y	Y
Number of observations	126	126	126	126
Adjusted R <sup>2</sup>	0.04	0.07	0.08	0.09
<i>Panel B: Maximum PEG Board Seats</i>				
Rule of law index	-0.07 [0.06]	-0.09 [0.08]	-0.08 [0.07]	-0.08 [0.07]
British legal origins	-0.19 **[0.10]	-0.19 *[0.11]	-0.18 *[0.12]	-0.21 **[0.11]
French legal origins			-0.17 *[0.10]	-0.12 [0.10]
GNP per capita	0.12 [0.15]	0.46 *[0.32]	0.30 [0.31]	0.30 [0.31]
U.K. or U.S. based PEG				0.39 ***[0.14]
Industry dummies	Y	Y	Y	Y
Year dummies	N	Y	Y	Y
Number of observations	126	126	126	126
Adjusted R <sup>2</sup>	0.04	0.08	0.10	0.10
<i>Panel C: Maximum Founder and Manager Board Seats</i>				
Rule of law index	0.24 [0.44]	0.10 [0.57]	-0.29 [0.60]	-0.36 [0.53]
British legal origins	0.25 **[0.12]	0.26 *[0.14]	0.24 ***[0.11]	0.24 **[0.12]
French legal origins			0.19 ***[0.08]	0.18 **[0.09]
GNP per capita	0.05 *[0.03]	0.08 [0.07]	0.06 [0.07]	0.08 *[0.06]
U.K. or U.S. based PEG				0.26 **[0.14]
Industry dummies	Y	Y	Y	Y
Year dummies	N	Y	Y	Y
Number of observations	126	126	126	126
Adjusted R <sup>2</sup>	0.03	0.06	0.06	0.05

\*=Significant at the 10% level; \*\*=significant at the 5% level; \*\*\*=significant at the 1% level.

**Table 10—Regression analyses of supermajority provisions in developing country private equity transactions.** The sample consists of 167 investments in developing countries by private equity groups (PEGs). The dependent variables are a sum of the score of supermajority provisions and one of three coefficients from a factor analysis. (In each case, a higher score implies greater use of supermajority provisions.) Independent variables include the logarithms of an index of the rule of law and per capita gross national product, and dummy variables denoting nations with British or French legal origins and funds based in the U.K. or U.S. All regressions employ ordinary least squares specifications. Standard errors are in brackets.

<i>Panel A: Supermajority Provision Score</i>				
Rule of law index	-17.45 ***[7.66]	-21.35 ***[8.74]	-25.26 ***[10.19]	-26.45 ***[10.67]
British legal origins	9.83 ***[4.55]	13.65 **[6.70]	11.19 **[7.96]	11.44 *[8.12]
French legal origins			-11.06 **[5.11]	-11.48 **[5.67]
GNP per capita	3.63 *[2.93]	6.01 *[4.86]	5.24 [4.56]	5.96 [5.02]
U.K. or U.S. based PEG				-1.72 [4.85]
Industry dummies	Y	Y	Y	Y
Year dummies	N	Y	Y	Y
Number of observations	166	166	166	166
Adjusted R <sup>2</sup>	0.29	0.25	0.24	0.23
<i>Panel B: Supermajority Factor 1</i>				
Rule of law index	0.84 [0.67]	0.90 [0.79]	0.94 [0.87]	0.96 [0.88]
British legal origins	1.64 **[0.73]	2.13 *[1.31]	2.19 *[1.42]	2.75 **[1.47]
French legal origins			-1.14 **[0.61]	-1.45 **[0.67]
GNP per capita	0.41 [0.54]	1.06 [0.70]	0.84 [0.76]	1.04 *[0.71]
U.K. or U.S. based PEG				0.34 [0.44]
Industry dummies	Y	Y	Y	Y
Year dummies	N	Y	Y	Y
Number of observations	166	166	166	166
Adjusted R <sup>2</sup>	0.29	0.24	0.23	0.22

\*=Significant at the 10% level; \*\*=significant at the 5% level; \*\*\*=significant at the 1% level.

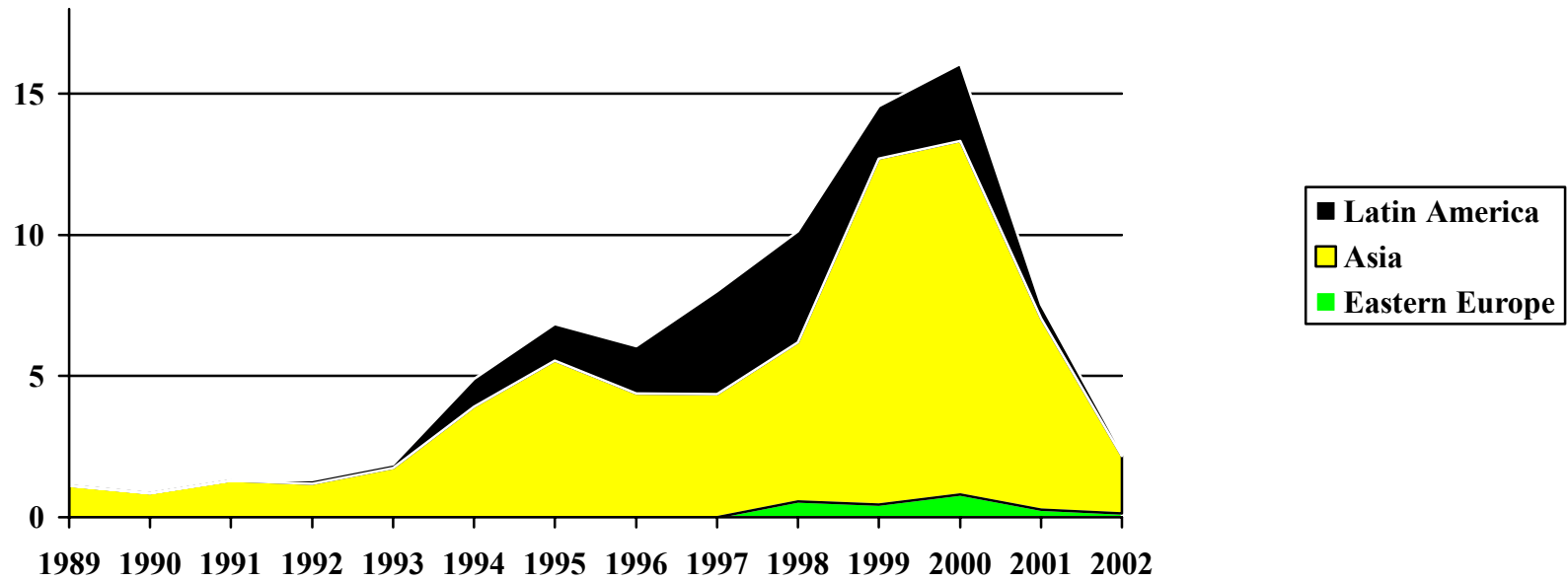
**Table 11—Correlation matrix between different parts of private equity contract.** The sample consists of 167 investments in developing countries by private equity groups (PEGs). We show the correlation structure between different contract parts. All variables but the last two are coded as dummy variables equal one if the private equity contract uses debt, common stock, preferred stock, anti-dilution protection, automatic conversion provisions, or redemption rights; and zero otherwise. The last two variables denote actual values for the PEG's maximum equity stake as well as the maximum number of seats on the board.

<i>Panel A: Correlation in Full Sample</i>								
	Debt	Common stock	Preferred stock	Anti-dilution	Automatic conversion	Redemption rights	PEG equity stake	Maximum board size
Debt	1							
Common stock	0.27***	1						
Preferred stock	-0.09*	-0.26**	1					
Anti-dilution	-0.47*	-0.16**	0.19***	1				
Automatic conversion	-0.15*	-0.60***	0.07**	0.55***	1			
Redemption rights	-0.06	-0.03**	0.03***	0.08***	0.17***	1		
PEG maximum equity stake	0.43***	0.09**	0.04	-0.09**	-0.12	-0.10*	1	
Maximum board size	0.05	-0.08**	-0.04*	-0.05*	-0.11	-0.13	0.03	1

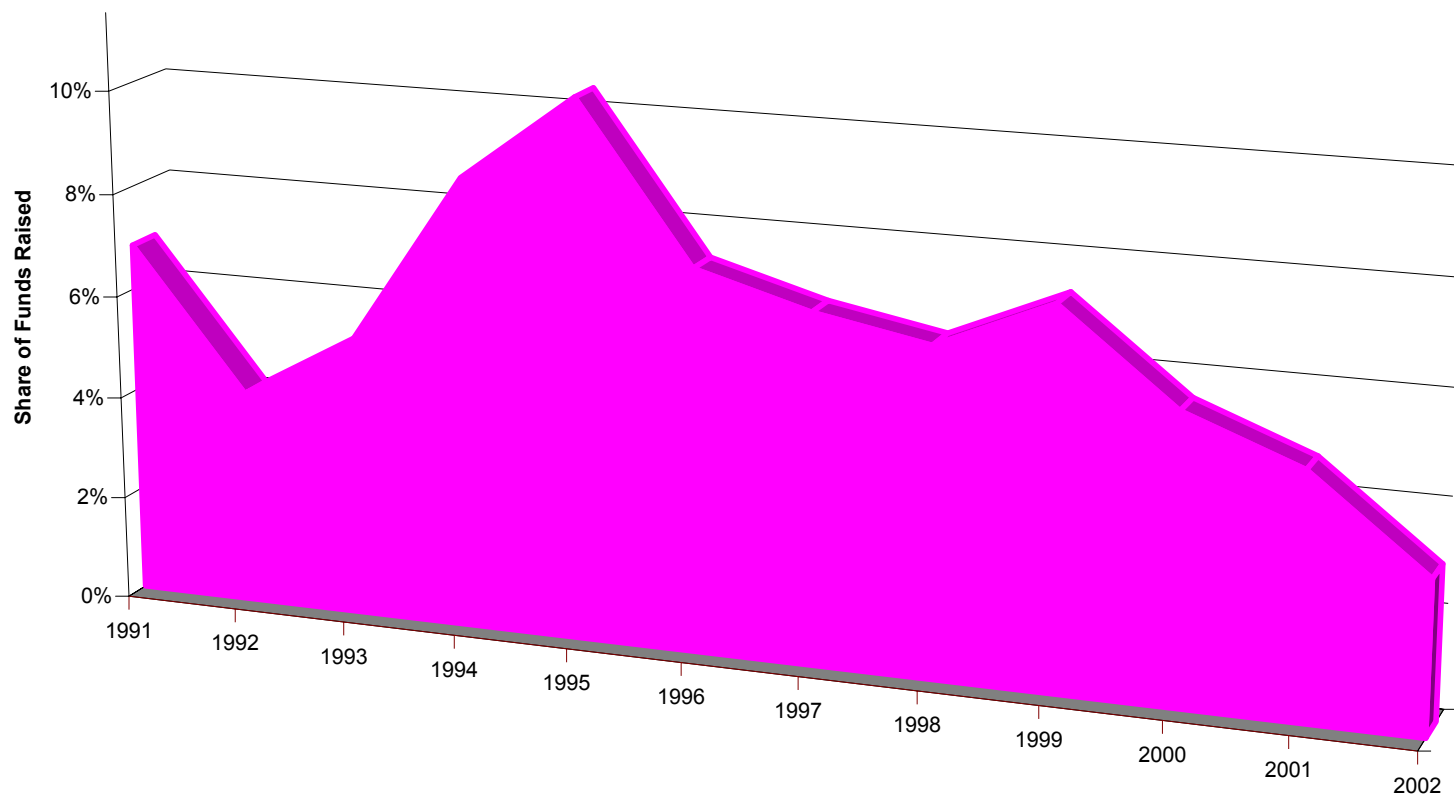
\*=Significant at the 10% level; \*\*=significant at the 5% level; \*\*\*=significant at the 1% level.



Billions of 2002 \$\$



**Figure 1—Developing nation private equity fundraising by year, 1989-2002.** No data on Eastern Europe are available prior to 1998; and on Latin America before 1992. Source is various national and regional venture capital associations.



**Figure 2—Developing countries' share of global private equity fundraising, 1991-2002.** No data on Eastern Europe are available prior to 1998; and on Latin America before 1992. Source is various national and regional venture capital associations.