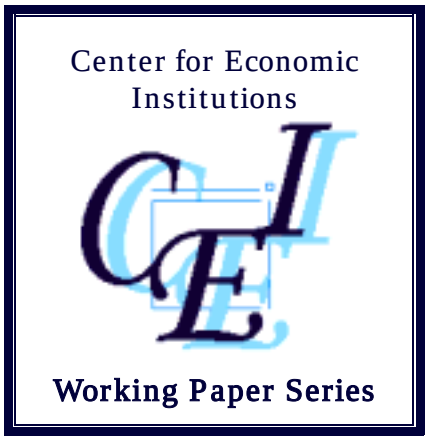
Center for Economic Institutions

Working Paper Series

CEI Working Paper Series, No. 2000-4

Expropriation of Minority Shareholders in East Asia

Stijn Claessens, Simeon Djankov^ , Joseph Fan,
and Larry Lang



Institute of Economic Research
Hitotsubashi University
2-1 Naka, Kunitachi, Tokyo, 186-8603 JAPAN
Tel: +81-42-580-8405
Fax: +81-42-580-8333
e-mail: cei-info@ier.hit-u.ac.jp

Expropriation of Minority Shareholders in East Asia

Stijn Claessens, Simeon Djankov^, Joseph Fan, and Larry Lang[1]

This draft: July 2000

Abstract

We examine the evidence on expropriation of minority shareholders by the controlling shareholder in publicly traded companies in nine East Asian countries. Higher cash-flow rights are associated with higher market valuation. In contrast, higher control rights have an insignificant or negative effect on corporate valuation. Deviations of voting from cash-flow rights through the use of pyramiding, cross-holdings, and dual-class shares, are associated with lower market values. Results are robust to the time period we study, splitting the sample by individual countries, using alternative measures of the incentive for expropriation, and using alternative measures for firm valuation. We conclude that the risk of expropriation is the major principal-agent problem for public corporations in East Asia.

[1] World Bank, World Bank and CEPR, Hong Kong University of Science and Technology, and the Chinese University of Hong Kong, respectively. Joseph P.H. Fan and Larry H. P. Lang gratefully acknowledge the Hong Kong UGC Earmarked grant for research support. The opinions expressed do not necessarily reflect those of the World Bank. We thank Lucian Bebchuk, Erik Berglof, Caroline Freund, Ed Glaeser, Tarun Khanna, Rafael La Porta, Florencio Lopes-de-Silanes, Randall Morck, Tatiana Nenova, Raghuram Rajan, Henri Servaes, Rene Stulz, Daniel Wolfenzon, seminar participants at the World Bank, the International Monetary Fund, the Federation of Thai Industries in Bangkok, the Korean Development Institute, the Korea Institute of Finance, Vanderbilt University, University of Illinois, University of Michigan, the 1999 NBER Summer Conference in Corporate Finance, the 2000 AEA meetings in Boston, and especially Andrei Shleifer for helpful comments. ^ Corresponding author: tel. 202 473 4748, EM:sdjankov@worldbank.org

Expropriation of Minority Shareholders in East Asia

Stijn Claessens, Simeon Djankov, Joseph Fan, and Larry Lang

I. Introduction

The benefits of large investors in enhancing the value of the firm have been the subject of extensive research. Block-holders can alleviate one of the main principal-agent problems in the modern corporation, i.e., the conflict of interest between shareholders and managers. Large investors have the power and means to monitor managers and ensure that they act in the best interest of shareholders. This monitoring is shown to result in higher corporate valuation.[2] There has been less investigation on the costs associated with the presence of large investors and, in particular, on their ability to expropriate other stakeholders. Expropriation is defined as the process of using one's control powers to maximize own welfare and redistribute wealth from minority shareholders. Theory suggests, however, that incentives for expropriation exist and are especially strong when control rights exceed ownership rights.

In this paper, we fill a gap in the existing literature by providing evidence to suggest that controlling shareholders in some East Asian countries expropriate minority shareholders. Using a large database of publicly-traded corporations in nine countries, we find a positive relationship between expropriation and the separation of cash-flow from voting rights. We conclude that the primary agency issue for large corporations in East Asia is limiting expropriation of minority

[2] For a survey of the literature on the benefits of large shareholders, see section IV in Shleifer and Vishny (1997). In the most extreme cases, Shleifer and Vishny (1986) show that large investors oust management through proxy fights or takeovers if the latter pursue empire-building strategies at the expense of equity holders.

shareholders by controlling shareholders, rather than restricting empire building by unaccountable managers.

In previous work (Claessens, Djankov, and Lang, 2000), we have documented a large divergence between cash-flow and voting rights for corporations across nine East Asian countries. Control in these countries is often enhanced through the use of pyramid structures and cross-holdings among firms. The analysis here suggests that for these corporations high cash-flow rights in the hands of block-holders raise market valuation, consistent with the Jensen and Meckling (1976) model. We also find, however, an insignificant or negative effect of high concentration of control on firm value. This is weakly supportive of the argument that once "large owners gain nearly full control of the company, they prefer to generate private benefits of control that are not shared by minority shareholders" (Shleifer and Vishny, 1997, p.759). Separation of cash-flow from voting rights is especially associated with lower market values, consistent with Grossman and Hart (1988), Harris and Raviv (1988), Bebchuk et al. (1999) and Bebchuk (1999). We interpret the value discount as evidence of expropriation of minority shareholders by controlling shareholders. Conversely, Morck et al. (1988) show that when managers are also controlling shareholders, i.e., even when the possibility of entrenchment is higher, firms trade at a premium within a certain range. This finding suggests that when ownership and control go together, these is less incentive for non-value-maximizing behavior, although the opportunity of engaging in such behavior increases.

The paper is structured as follows. Section II summarizes the existing literature on the costs of large shareholders. Section III describes the data sample and the construction of the ownership and control variables. Section IV shows the construction of the valuation measure and investigates the evidence on small shareholder expropriation in East Asia. It also analyzes the

effect of different types of ownership on expropriation. Section V provides a robustness analysis by reporting the regression results for each country and using a different method for measuring relative firm value. Section VI concludes.

II. The Cost of Large Investors

The research on the topic of ownership structures and corporate valuation dates back to Berle and Means (1932) and has found renewed interest following the contributions by Jensen and Meckling (1976), Morck et al. (1988), and Bebchuk et al. (1999). Berle and Means show that diffuse control rights yield significant power in the hands of managers whose interests do not coincide with the interest of shareholders. As a result, corporate resources are not used for the maximization of shareholders' value. Jensen and Meckling conclude that concentrated ownership is beneficial for corporate valuation, because large shareholders are better at monitoring managers (and because it reduces transaction costs in negotiating and enforcing corporate contracts with various stakeholders). Morck et al. suggest that the absence of separation between ownership and control reduces conflicts-of-interest and thus increases shareholder value. Bebchuk et al. argue that arrangements that separate control from cash-flow rights create agency costs that are an order of magnitude larger that the costs associated with a controlling shareholder who has a majority of the cash-flow rights in his company.

Several other theoretical studies have investigated the effects of separation of cash-flow and voting rights on firm value. Burkart, Gromb, and Panunzi (1998) analyze the separation of cash-flow and voting rights; they argue that the under-concentration of cash-flow rights increases moral hazard and leads to inefficiencies. The model suggests expropriation of minority shareholders, as the controlling party allocates some corporate resources to the production of

private benefits. Wolfenzon (1999) develops a model where the entrepreneur can decide between a horizontal (an independent concern) or a pyramidal structure (as a subsidiary of a company he already controls) for his newly-established firm. The model predicts a higher incidence of pyramidal structures in countries with poor investor protection, as such structures can be used by the entrepreneur to expropriate other shareholders. Finally, Bebchuk (1999) develops a model to show that when the private benefits of control are large, as is the case in industries or countries with protected markets, maintaining a lock on control through separation of ownership and control would enable the initial shareholders to retain a larger share of the rents.

Empirical studies on data for the United States (e.g., Lease et al., 1984; DeAngelo and DeAngelo, 1985; Shleifer and Vishny, 1986; Holderness and Sheehan, 1988; Barclay and Holderness, 1989; McConnell and Servaes, 1990) find a positive relation between ownership concentration (in certain ranges) and corporate valuation.[3] There is recent empirical evidence that concentrated ownership can also harm market valuation. Shleifer and Vishny (1997), Morck et al. (1998), and La Porta et al. (1999b) study the conflicts of interest between large and small shareholders. When large shareholders effectively control a corporation, their policies may result in the expropriation of minority shareholders. The conflicts of interest between large and small shareholders can include outright expropriation, i.e., controlling shareholders enriching themselves by not paying out dividends, or transferring profits to other companies they control;

[3] Other studies (Demsetz, 1983; Demsetz and Lehn, 1985) argue that the relation is spurious. While greater ownership concentration results in stronger incentives to monitor, investors may be inhibited from taking value-maximizing positions in firms if the costs associated with amassing large stakes are high. If transaction costs are low, each firm would have the optimal, but not necessarily concentrated, ownership structure.

or *de facto* expropriation through the pursuit of nonprofit-maximizing objectives by large investors. Such companies are unattractive to small shareholders and their shares are valued less relative to their market peers. Morck et al. (1998) show that concentrated corporate control impedes growth, as entrenched controlling shareholders have a vested interest in preserving the value of existing capital. In the case of Canadian publicly traded companies, openness of capital markets mitigates the ill effects of concentrated control.

The empirical literature on the separation of ownership and control has recently emerged. The seminal study on the means used to enhance corporate control is La Porta, Lopez-de-Silanes, and Shleifer (1999a), who investigate the separation of ownership and control in over 600 corporations in 27 rich countries. They find that pyramid structures are the most effective means used to enhance control, and that dual-class shares are rarely used, even in countries where their usage has been allowed for a long time. Two case-studies on Italy (Aganin and Volpin, 1998; Enriques, 1998) use a similar methodology to document various means used to separate ownership and control.[4] Claessens, Djankov, and Lang (2000) extend the analysis of ownership and control patterns to East Asia. They find large family control in more than half of East Asian corporations. Corporations in Japan are generally widely-held, while corporations in Indonesia and Thailand are mainly family-controlled. Separation of management from ownership control is rare, with management of two-third of firms family-related to the controlling owner. The last

[4] Enriques (1999) is part of an on-going project funded by the European Corporate Governance network. Working papers on other European countries include Gugler, Stomper, and Zechner (1999) on the separation of ownership and control in listed Austrian companies; Becht and Chapelle (1999) on listed Belgian companies; Bloch and Kremp (1999) on listed French companies; and De Jong, Kabir, Marra, and Roell (1999) on public companies in the Netherlands.

finding suggests that the main principal-agent problem is East Asia is not the conflict of interest between owners and managers, as those frequently coincide even in the largest publicly-traded corporations.

The expropriation-of-minority-shareholders hypothesis has not been investigated directly until recently. La Porta et al. (1999b) provide support for the quantitative importance of the expropriation of minority shareholders in many countries, as well as the role of the law in limiting such expropriation. They document higher valuation of firms in countries with better protection of minority shareholders, and weaker evidence of benefits of higher cash-flow ownership by controlling shareholders on corporate valuation. Several previous papers focus on the costs of large block-holdings, interpreting the premium that shares with superior voting rights attract as evidence of private benefits of control.[5] Such premia vary between 3% and 5.2% for the United States, and are about 81% for Italy. This set of papers either assumes or finds strong congruence of interests between large and small shareholders and argues that the voting premia reflect the expectation that voting rights become important in takeover battles. Shleifer and Summers (1988) point more specifically to the expropriation of extramarginal benefits to insiders, including incumbent managers, if a hostile takeover succeeds. Morck et al. (1988) further suggest that takeovers limit the extent of non-value-maximizing behavior on the part of insiders.

III. Measuring Ownership and Control Rights

[5] Studies include Bergstrom and Rydqvist (1990) for Sweden, Barclay and Holderness (1989) and Zingales (1995) for the United States, Zingales (1994) for Italy, Megginson (1990) for the United Kingdom, Robinson and White (1990) for Canada, Horner (1988) for Switzerland, and Levy (1982) for Israel.

The analysis is based on newly-assembled data for publicly-traded corporations, including both financial institutions and non-financial institutions, in Hong Kong, Indonesia, Japan, Korea, Malaysia, the Philippines, Singapore, Taiwan, and Thailand. As the starting point for our data collection, we use the Worldscope database which provides the names and holdings of the largest owners for most firm – 79% of our sample.

We supplement the Worldscope data with ownership information from the Asian Company Handbook 1999, the Japan Company Handbook 1999, Hong Kong Company Handbook 1997, the Handbook of Indonesian Companies 1996, the Philippine Stock Exchange Investments Guide 1997, the Securities Exchange of Thailand Companies Handbook 1997, and the Singapore Investment Guide to complete the ownership profiles of the remaining 21% of the sample (Table A1). We exclude companies which have proxy ownership that cannot be traced to a specific owner. In all cases, we collect the ownership structure as of December 1996 or the end of the 1996 fiscal year. Information on dual-class shares is provided in Datastream, as described in Nenova (1999). Since Datastream carries data only on publicly traded shares, one may worry that high-powered voting shares are privately held and thus not in our sample. Unfortunately, this is a concern that cannot be addressed with the available data. Another problem is the likely presence of convertible non-voting shares and convertible debt. A majority shareholder may have little voting stock, but still be able to direct corporate decisions by virtue of being able to freely convert non-voting securities into an overwhelming block of voting stock. The available data do not allow us to include convertible debt and securities in our calculation of control rights. This is likely to bias our results against finding significant evidence of control discounts, as suggested by the theory. We supplement these data with country-specific sources for Indonesia, the Philippines, Singapore, and Thailand, where Datastream covers a smaller fraction of listed companies.

We also use various country sources on business group affiliation to study the pyramid structures and cross-holdings among group-affiliated firms (Table A1). For the purposes of this paper, we define groups as composed of all firms in which a given controlling shareholder has an equity stake. This definition makes it easier to break ties in ownership shares when firms have multiple controlling shareholders. We end up with 2,980 companies for which we can trace the ultimate owners.

In all nine East Asian countries, members of a business group are required to report separate accounting data. If inter-group ownership concentration is high, the group also has to supply a consolidated account statement. For example, a Korean chaebol which has more than 30% inter-group holdings is required to report a consolidated statement. At the company level, we use consolidated account data when it is disclosed. Information is provided by Worldscope whether all subsidiaries are consolidated, whether consolidation covers only the most significant subsidiaries, or whether the report is on a cost basis (unconsolidated). If a company changes its consolidation practice, this change is also recorded in the data. We include all companies, both with consolidated and unconsolidated reports, in the regression analysis. This is not a significant problem here since we have the sales data for each company and consolidate up to the level of the firm, as shown in Section IV. When we include only companies that report consolidated data, as defined in Worldscope, we get qualitatively similar results.

We analyze the ownership pattern of companies by studying ultimate shareholdings. In the majority of cases, the principal shareholders are themselves corporate entities, not-for-profit foundations, or financial institutions. We then identify their owners, the owners of their owners, etc. We do not distinguish among individual family members and use the family group as a unit of analysis. We divide corporations into widely-held and corporations with ultimate owners. A

widely-held corporation is defined as a corporation which does not have any owner who has 10% or more of control rights. In an alternative specification, we use a 20% cut-off for control rights in the hands of the largest block-holder. Ultimate owners are further separated into four categories: families including individuals who have large stakes, widely-held financial institutions such as banks and insurance companies, widely-held corporations, and the state.

Our study of expropriation uses data on both cash-flow and voting rights. Suppose, for example, that a family owns 11% of the stock of publicly-traded Firm A, which in turn has 21% of the stock of Firm B. We then say that the family controls 11% of Firm B—the weakest link in the chain of voting rights. In contrast, we say that the family owns about 2% of the cash flow rights of Firm B, the product of the two ownership stakes along the chain. We make the distinction between cash-flow and voting rights by documenting for each firm pyramiding structures, cross-holdings among firms, and deviations from one-share-one-vote rules.

To better understand the variety of ownership structures that determine the ultimate control of companies, we provide an example. The example shows some of the complications in the construction of ultimate ownership and the wealth of data necessary to ensure proper tracing of the ultimate owners in East Asian corporations. For the remainder of the paper, we use only the listed companies in the definition of a business group. Many companies affiliated with business groups in East Asia are unlisted and are not covered in this paper. For example, at the end of 1996 the largest three business groups in Korea—Hyundai, Samsung, and LuckyGoldstar—had 46, 55, and 48 affiliated firms respectively. Of those, only 16, 14, and 11 were publicly-listed companies, respectively. Since data on unlisted affiliates are unavailable, we cannot extend our analysis to unlisted firms. This limits the extent of our study, as it does not allow us to experiment with variables like the size of business groups or the number of layers in the group

pyramid. Presumably, more complexity and more group affiliates would increase the opportunity for expropriation.

Figure 1 shows the main holdings of Yasuda Life Insurance, the principal shareholder in the Fuyo group, which is the fourth largest keiretsu in Japan. Yasuda Life is a widely-held financial institution, since its largest shareholder controls only 1.1% of the voting rights.[6] Two of its holdings, Marubeni Corporation and Showa Denko, have dual-class shares owned by Yasuda Life Insurance. In the case of Marubeni Corp., a third of Yasuda Life's shares have two votes each. These are in fact the only superior-voting shares of Marubeni, enhancing the control rights of Yasuda Life to 6.5% of all votes.[7] A similar pattern is observed in the ownership structure of Showa Denko – Yasuda Life has about a fifth of its shares with superior voting rights, and these are the only shares that deviate from the one-share-one-vote rule. Studying the ownership and control stakes in Figure 1, it does not seem that Yasuda Life has control over 10% of any company in the Fuyo group. This inference turns out to be incorrect, as we will show next.

Figure 2 provides the ownership and control stakes of Fuji Bank, the third largest member of the Fuyo group in terms of market capitalization. Fuji Bank holds stakes in seven of the companies under the direct ownership of Yasuda Life, an example of cross-holdings among affiliates of the Fuyo group. Among the holdings of Fuji Bank, we document both pyramidal structures (denoted with solid lines) and cross-holdings (denoted with dotted lines). Fuji Bank

[6] When the parent company is collectively controlled by the aggregate of its "subsidiaries", each having a small equity stake, we call it widely-held. This is almost always the case with firms at the apex of Japanese keiretsu.

[7] Note that one can also observe cash-flow rights in excess of voting rights, if some of the other shareholders own superior–class shares, or if the shareholder has non-voting shares.

has C&V 4.7% in Marubeni Corp., which in turn has C&V 32.4% in Toyo Sugar. Similarly, Fuji Bank has C&V 5% in Yasuda Fire and Marine Insurance (Yasuda F&M), which in turn holds C&V 12.6% in Tatamono Inc. Fuji Bank also holds C&V 16.8% in Yasuda Trust, which in turn has C&V 6.3% in Toa Corporation. Fuji Bank also holds C&V 5.2% in Toa Corporation directly, which is an example of a cross-holding.

The analysis in Figures 1-2 suggests that there exists a complex network of cross-holdings among the members of the Fuyo group, which serve to enhance the ownership and control concentration in the hands of Yasuda Life Insurance. We document the holdings of each of the companies in the group and construct a cross-holding matrix for the nine major companies (Table 1). This table allows us to find the ultimate ownership and control structure of each major company in the Fuyo group. In effect, the table is similar to an input-output matrix where the owners are listed in the rows, and the owned firms are listed in the columns. A larger matrix (not reported here) includes cross-holdings among all 42 Fuyo listed affiliates present in our sample.

The rows in the table indicate the ownership and control stakes in the company listed in each column. For example, Yasuda Life holds C&V 4.4% in Fuji Bank, C&V 7.5% in Oki Electric, C&V 8.6% in Yasuda Trust, etc. (these numbers match the numbers reported in Figure 1). Similarly, Yasuda Trust holds C&V 2.8% in Fuji Bank, C&V 4.9% in Oki Electric, etc., i.e., the numbers reported in Figure 2. We use the information in Table 1 to calculate Yasuda Life's ultimate cash-flow and voting rights in Fuji Bank. Yasuda Life has a direct C&V stake of 4.4%, and indirect stakes through Oki Electric, Yasuda Trust, Marubeni Corp., Yasuda Fire and Marine, Nippon Seiko, Nihon Cement, and Showa Denko. The indirect stake in Oki Electric enhances Yasuda Life's cash-flow rights in Fuji Bank by 0.5625 percentage points (the product of 7.5 and 7.5) and voting rights by 7.5 percentage points (which is the minimum of the two 7.5 stakes).

The indirect stake in Yasuda Trust enhances Yasuda Life's cash flow rights in Fuji Bank by 0.2408 percentage points (the product of 8.6 and 2.8) and voting rights by 2.8 percentage points (the weakest link in the chain of voting rights). Once we sum up all the direct and indirect stakes in Fuji Bank, we reach the conclusion that Yasuda Life owns 5.4469% of Fuji Bank and controls 19.9% of the voting rights. Using this cross-holding structure, Yasuda Life has almost quadrupled its control over Fuji Bank!

The examples in Figures 1-2 show that ultimate ownership and control are described both by their level, and by the type of controlling shareholder. From a corporate governance standpoint, the relevant indicator is the share of ultimate voting rights, as it enables owners to determine dividend policies, investment projects, personnel appointments, etc. We start by reporting the aggregate statistics on the distribution of ultimate control among the five ownership groups identified in the previous section (Table 2). We study ultimate control at two cut-off levels, 10% and 20% of voting rights. This allows us to describe the differences in the concentration of control in the individual firms across the nine East Asian countries.

There are large differences across countries in the distribution of ultimate control at the 10% (benchmark) level. Japan, for example, has also only 13.1% of companies in family hands as compared to over half of companies in most other countries (the Philippines has slightly over 40%). Japan has only 58% of companies which are controlled by a large shareholder, while the remaining eight countries typically have almost all corporations under the control of a large investor. Indonesia, for example, has more than two-thirds (68.6%) of its publicly-listed companies in family hands, and only 0.6% are widely-held. Almost a quarter (23.6%) of the publicly-traded companies in Singapore are state-controlled.

At the 20% cut-off level the differences across countries widen. Only 20.2% of Japanese companies are controlled by a single large investor and less than one-tenth (9.7%) are controlled by families. An even more dramatic change takes place in Korea, where only 56.8% of companies are now controlled by large investors, and Taiwan, where 73.7% of companies now have a controlling large shareholder. In the Indonesian sample, the share of family control increases at the expense of state, widely-held financial, and widely-held corporate control. A similar pattern can be observed for Thailand where family control increases from 56.5% to 61.6%, and Malaysia, where family control increases from 57.5% to 67.2%. The most stable control structure between these two cut-off levels is observed for the Philippines and Singapore.

Table 3 reports descriptive statistics on the concentration of cash-flow and voting rights of East Asian corporations in the hands of the largest controlling holder, and the separation of ownership and control. Only companies that have a large investor holding at least 10% of the voting rights are included in panel A, while panel B includes companies where the largest shareholder holds at least 20% of the voting rights. Among the 2,980 companies in the database, 2,371 companies, or 79.5% of the total sample, enter panel A, and 1,654 companies, or 55.5% of the sample, are included in panel B. Of those, cash-flow exceed voting rights for the largest shareholder for 1,101 and 674 companies, respectively. The remaining companies do not have any deviations of voting from cash-flow rights. The least number of companies where control exceeds ownership, both in absolute terms and relative to the size of the country sample, are found in Thailand.

Thai corporations also display the most concentrated cash-flow rights, 36.577% on average, followed by Indonesian companies, with 27.712%, and Hong Kong companies, with 27.519%. Japanese, Korean, and Taiwanese corporations have the least concentration of cash-flow rights,

10.843%, 20.839%, and 20.215% respectively. Across countries, the concentration of voting rights in the hands of the largest block-holder is similar to the concentration of cash-flow rights, with Thai and Indonesian companies having the highest concentration, 39.042% and 36.669% respectively, followed by Malaysian and Hong Kong companies, 31.633% and 31.834% respectively. The least concentration of control is documented in Japan, Korea, and Taiwan, 15.801%, 23.942%, and 24.335% respectively. The last three columns show the ratio of cash-flow to voting rights, which we use as the measure of separation of ownership and control in the regression analysis. The separation of control from ownership is on average the most pronounced in Japan (0.606), Indonesia (0.758), and Singapore (0.742), and the least in the Philippines (0.892) and Thailand (0.941). A similar pattern of concentration and separation of cash-flow and voting rights is observed in panel B, except for Japan where the average ratio of cash-flow to voting rights increases from 0.606 to 0.814.

The means by which cash-flow right are separated from control rights for the nine East Asian countries have been previously documented in Claessens, Djankov, and Lang (2000). Deviations from one-share-one-vote rules are rare across East Asian countries. On average, control of 20% of the vote can be achieved with 19.7% of the cash-flow rights. Instead, pyramiding is most frequently used to de-couple cash-flow and control rights. In particular, two-thirds of Indonesian firms in the sample have pyramiding ownership structures, as have approximately half of the firm in the sample in Korea, the Philippines, Singapore, and Taiwan. The smallest share of firms involved in pyramiding structures is recorded in Thailand. Finally, 10.7% of the firms in the sample have cross-holdings in other firms. This percentage is the highest for firms in Singapore, Malaysia, and Japan, 15.7%, 14.9%, and 11.7% respectively, and the lowest for firms in Indonesia and Thailand, where less than 1% of firms have cross-holdings.

IV. Evidence of Expropriation

Researchers have employed Tobin's q to measure the discount in market values resulting from expropriation (Morck, Shleifer, and Vishny, 1988; Barclay and Holderness, 1989; McConnell and Servaes, 1990; Zingales, 1994, among others). It is constructed as the market value of assets divided by the replacement cost of assets. We follow the same definition here, using the book value of assets as a proxy for their replacement cost. To control for industry-wide effects on firm valuation, previous papers most often use industry dummies in the regressions. Some papers also make adjustments to firms' Tobin's q. Specifically, they use the firm's primary sector code to find matching firms and compare the firm's Tobin's q with the median Tobin's q of the matching sample. We use the first method to correct for industry-effects, but also conduct an alternative approach to correct for the effects of firms operating in different (and multiple) industries.

To determine the primary industry in which the firm operates, we rely on the historical segment sales data collected by Worldscope. If such information is not provided for a particular firm, we supplement the segment data from various issues of the Asian Company Handbook and the Japan Company Handbook. We exclude a small number of firms from the sample because they do not report segment sales. For the remaining firms, we determine the industry sectors to which firms belong according to the two-digit Standard Industry Classification (SIC) system, based on the largest share in sales revenues from the firm's activity in each sector. We then used the broad industry group as defined by Campbell (1996) to classify firms into 12 industries.[8]

[8] The sectors are defined as follows: Petroleum industry (SIC 13 and 29); Finance and Real Estate (SIC 60-69); Consumer Durables (SIC 25, 30, 36, 37, 50, 55, and 57); Basic Industry (SIC 10, 12, 14, 24, 26,

We have a broad representation of industries in our sample (Table 4). In terms of number of firms, we find that about 20% of the firms in our sample are primarily in the finance and real estate business and another 17% in the consumer durable industry. About 12% of firms are in the basic industry, similar to the share of firms in the capital goods industry, 11%. Next in importance follow firms in construction and utilities, followed by food and tobacco. Industries with the smallest number of firms in our sample are petroleum and utilities.

We seek evidence regarding the following three hypotheses. First, the value of the firm is expected to be increasing in the concentration of cash-flow rights in the hands of block-holders, as suggested by Jensen and Meckling (1976). Second, a negative effect is expected on firm value from concentrated voting rights. This is because once "large owners gain nearly full control of the company, they prefer to generate private benefits of control that are not shared by minority shareholders" (Shleifer and Vishny, 1997, p.759). Third, as argued in Bebchuk et al. (1999), we expect to find that firm valuation is an increasing function in the ratio of cash-flow to voting rights, as the benefits of expropriation rise with the wedge between cash-flow and voting rights.

We start by employing the following regression models for the year 1996, the year for which we have ownership data:

(1) TOBINQ = Intercept + b1*CASH + b2*SGROWTH +b3*CES + u

(2) TOBINQ = Intercept + b1*VOTES + b2*SGROWTH +b3*CES + u

28, 33); Food and Tobacco (SIC 1, 20, 21, 54); Construction (SIC 15-17, 32, 52); Capital Goods (SIC 34, 35, and 38); Transportation (SIC 40-42, 44, 45, and 47); Utilities (SIC 46, 48, and 49); Textiles and Trade (SIC 22-23, 31, 51, 53, 56, 59); Services (SIC 72-73, 75, 80, 82, 89); and Leisure (SIC 27, 58, 70, 78-79).

(3) TOBINQ = Intercept + b1*CASH + b2*VOTES + b3*(CASH/VOTES) + b4*SGROWTH +b5*CES + u

where TOBINQ is Tobin's q, CASH is cash-flow rights of the largest block-holder, VOTES is the voting rights of the largest block-holder, and CASH/VOTES is the ratio of cash-flow to voting rights of the largest block-holder. We include the growth of sales revenues over the years, SGROWTH, as a control variable, following La Porta et al. (1999b). This ratio controls for the growth opportunities and the expected rate of return on investment the firms may have. We also include capital expenditures over sales ratio, CES, as a control variable, following Lang and Stulz (1994). This ratio accounts for investment opportunities available to the firm. We include industry dummies to adjust for the differences in Tobin's q across industries. We employ the ordinary least-square (OLS) method in the regression analysis, since the dependent variable is not limited.

The correlation matrix of all the variables used in the regression analysis (not shown) suggests small differences in the effect of concentrated control and cash-flow rights on corporate valuation. The raw correlation between CASH and VOTES is high, 0.852 in the sample of companies with a controlling shareholder with at least 10% of the vote, and 0.774 in the sample of companies with a controlling shareholder with at least 20% of the vote. This implies that we are unlikely to find significant support for the theory on control concentration.

The regression analysis excludes companies with dispersed ownership. One can see, however, whether such widely-held companies are less valuable than firms with concentrated ownership as the Jensen-incentive effect would suggest. This is indeed the case in our sample. We compare the values of Tobin's q of widely-held companies with companies that have at least one shareholder with 10% of ownership, companies where the controlling shareholder has 20%

or more ownership, and companies where the controlling shareholder has more than 30% of the cash-flow rights. In each pair-wise comparison, the value of widely-held corporations is lower, and this difference is statistically significant. There is also a gradation effect, where the difference is largest between widely-held companies and companies where the controlling shareholder has more than 30% of the ownership. In this instance, widely-held firms have a 18% average discount, and the difference in means is significant with a t-statistics of 4.67.

We start with the sample of corporations which have a block-holder with at least 10% of votes. We find that higher cash-flow rights by the largest block-holder are positively related to Tobin's q (Table 5, panel A). The coefficient on the CASH variable is 0.05, and is statistically significant at the 1% level. The concentration of voting rights of the largest block-holder is positively, but not significantly, related to Tobin's q (column 2). This suggests that higher concentration of control per se does not necessarily lead to the expropriation of minority shareholders. The separation of ownership and control yields a negative effect on market valuation—the sign on CASH/VOTES is significantly positive (column 3), consistent with the hypothesis that deviations of voting from cash-flow rights are associated with expropriation. The parameter estimate is 0.267 with a t-statistic of 6.35. The regressions result suggests that, at the margin, a 10 percentage points increase in the separation between cash-flow and voting rights leads to a market discount of 3 percentage points. In this specification, voting rights now a negative, but still not significant effect on market valuation. We also find that market valuation is positively associated with sales growth, consistent with La Porta et al. (1999b). Also, higher investment, as measured by capital expenditures over sales (CES), is associated with higher valuation, consistent with Lang and Stulz (1994). Industry dummies (not reported) are (jointly) statistically significant in all our regressions. Firms in the Food and Tobacco, Textile and Trade,

and Services industries have on average higher valuations than the sample average, while firms in the Finance and Utilities industries are valued at a relative discount.

As a robustness check, we test whether these results are sensitive to the 10% cut-off in voting rights. We use the 20% cut-off (panel B) and find that the magnitude of the coefficients changes somewhat, but that none of the coefficients previously significant loses its statistical significance. Comparing with Panel A, the only change is that coefficient for the voting rights variable becomes negative, but it remains statistically significant. The coefficients for the ratio of cash flow rights to voting rights increases from 0.267 to 0.392. Therefore, our findings do not depend on the particular cut-off chosen for voting rights. The higher coefficient for the ratio of cash flow rights to voting rights suggests that expropriation is more of an issue at higher levels of control.

We experiment with alternative specifications of the proxy for expropriation incentives, using CASH – VOTES and CASH*(1 – VOTES) as robustness checks. The results remain qualitatively the same, where the CASH – VOTES specification has the highest statistical significance, with a coefficient of 0.013 and a t-statistic of 3.33.

To investigate differences across time, and as a robustness check, we study the effects of cash-flow and voting rights on market valuation also for the year 1995 (Table 6). The results are very similar to those found for 1996. The only differences are that the coefficient for voting rights is now statistically significant positive when it is including as the only independent variable. When both voting rights and the ratio of cash flow rights to voting rights are included, the coefficient on voting rights is no longer statistically significant.

We also run panel regressions on 1994-1996 financial data (but only 1996 ownership data), using OLS, fixed-effects, and random-effects models. The only qualitative difference in

any of these specifications from the results reported here is that the coefficient on VOTES sometimes becomes negative, but never statistically significant. The random-effects model yields stronger evidence on the existence of the expropriation discount than the results in Table 5 (not reported).

The results so far are consistent with the expropriation hypothesis, but do not yet shed light on whether a particular type of owner, and not the separation of ownership and control per se, is responsible for the results. We therefore study separately the effects of ownership by families, financial institutions, corporations and the state on market valuation. We use the similar regression as before and consider the effects of cash-flow and voting rights again separately, and as a ratio.

As East Asian corporations are often characterized as family controlled, we investigate whether families are a major factor behind our finding of expropriation for those corporations where families are the largest control block-holder. The number of corporations for which family is the largest block-holder is 1,139, or about half of the sample. We find that the effect of family ownership concentration is qualitative very similar to those found for all classes of ownership combined, although the statistical significance is somewhat diminished (Table 7). As before, we find weak, but not statistically significant, evidence of a positive impact of cash-flow rights, no evidence of impacts either way of voting rights on Tobin's q and strong evidence of negative impact of the separation of cash-flow and voting rights.[9]

[9] The idea that families are worse at expropriation of public shareholders in East Asia fits much casual empiricism. We study this hypothesis directly by pooling the data and testing for significant slope shifters associated with the controlling shareholder being a family. Indeed, we find this to be the case, as

We next study ownership by financial institutions. We find that cash-flow ownership by financial institutions is positively associated with corporate valuation, and that the separation of ownership and control brings about a valuation discount. Control alone does not appear to affect market valuation as the coefficient on VOTES is not significant. For corporate ownership, we do not find statistically significant evidence to suggest that corporations, in their role as large shareholders, use the separation of ownership and control to expropriate minority shareholders. Neither cash flow rights nor control affects market valuation in a statistically significant way, nor does the ratio of the two variables. The association between state cash flow rights and market valuation is statistically significant. We find that the coefficient for the deviation between cash flow rights and voting rights ratio is larger than for any of the other ownership classes, suggesting that the general lower market valuation arising from deviations between cash flow and control rights may in part arise from large state control.

The results discussed in this section may be alternatively explained by the endogeneity of the ownership and control choice. This issue can, to some extent, be dismissed by saying that ownership is rather stable over time and does not vary much with investment opportunities. Nonetheless, the CASH/VOTES variable may be simply a dummy for pyramids and hence not directly related to previous theoretical results on one-share-one-vote. Firms at the bottom of the pyramid may have less attractive growth opportunities than firms at the top of the pyramid in ways that are not captured by the sales growth or investment-to-sales ratio. Such a pattern could explain both the positive coefficient on CASH and the positive coefficient on CASH/VOTES.

---

family control results in a value discount higher than the discounts associated with the other three ownership types.

We address this issue in two ways. First, we re-run the regressions when excluding all firms that are parts of pyramidal structures. Since one-share-one-vote deviations are very rare in East Asia, the remaining firms achieve deviations of control and cash-flow rights primarily through the use of cross-holdings. In this smaller sample, we still find qualitatively the same results as in Table 5, as the coefficients on CASH and CASH/VOTES are positive and marginally statistically significant. The coefficient on VOTES remains insignificant.

Second, we search for anecdotal accounts of pyramid formation in East Asia and the use of such pyramids by the controlling shareholder.[10] In particular, we attempt to distinguish the growth opportunities of firms at different levels of the pyramidal structure. If anything, the existing case-study literature supports our general finding that the separation of ownership and control through the use of pyramids is used by the controlling shareholder to expropriate value from the minority shareholders of companies at the lower levels of the pyramidal structure. The case-study evidence is summarized in Backman (1999, p.68) as follows: "(East) Asian conglomerates generally opt for the squat pyramidal structure. A private holding company sits at the apex, a second tier holds the most prized assets that are usually privately held, and a third tier comprises the group's publicly listed companies. ...The publicly traded companies at the base of the pyramid serve as stalking horses for cash. They sell their shares to the public and then pass the proceeds up the pyramid via myriads of internal transactions. In return, other assets – less profitable and therefore less desired by the controlling family – are passed down the pyramid."

[10] A search on Lexis-Nexis identified more than 200 accounts of minority shareholder expropriation in the nine East Asian countries over the 1992-1996 period. Backman (1999) has over 40 studies of business group formation and their use to expropriate minority shareholders in the publicly-traded affiliates.

V. Country-Effects and Robustness Tests

To investigate differences across countries, and as a robustness check, we study the effects of cash-flow and voting rights on market valuation in each country. Since the Japanese sample accounts for a large portion of the data set and Japanese ownership structures are quite different from that in the other East Asian countries, we investigate separately the effects of different types of owners in Japan on market valuation. Since there are only 14 companies with significant state ownership in the Japanese sample, and since none of them have a separation of control from ownership, we exclude this ownership category from the analysis.

Overall, higher concentration of cash-flow rights in Japan is associated with higher market valuation, and the separation of ownership and control is associated with a value discount (Table 7). The results appear driven by ownership and control of financial institutions, where we find a positive effect of cash-flow rights and a strong positive effect of the ratio of cash-flow to voting rights. In contrast, none of the coefficients for family or corporate ownership are statistically significant, which may in part reflect the smaller sample in the regressions. These findings provide support for the results of Kang and Stulz (2000), who show that Japanese firms whose debt had a high fraction of bank loans in 1989 performed worse from 1990 to 1993, possibly as Japanese financial institutions extract a rent from their borrowers; and the findings of Morck and Nakamura (1999), who document that Japanese financial institutions do not provide good corporate governance.

The results for the other countries show that the expropriation hypothesis is not supported for the Malaysia, Singapore, and Taiwan samples, where none of the coefficients on the separation of voting from cash-flow rights are statistically significant (Table 9). The results for

Indonesia and Korea are significant for the cash flow rights, voting rights and cash-flow over voting rights variables. For both countries, we find positive, statistically significant coefficients for all three variables, with the coefficient for the cash flow over voting rights variable very large in case of Indonesia, 0.875, suggesting a high degree of expropriation. This may be due to the large role of families in ownership and the large separation between cash-flow rights and voting rights. For the Hong Kong sample, we find statistically significant results for the cash flow rights and the cash-flow over voting rights variables. In case of the Philippine sample, the coefficient for the cash-flow over voting rights variables is quite large and significant, 0.561, suggesting a high degree of expropriation. Finally, in Thailand, the cash-flow over voting rights variable is statistically significant positive.

As a further robustness test, we explore the effect of firms operating in multiple industry segment simultaneously. As Lins and Servaes (1999) and Claessens, Djankov, Fan, and Lang (1999) show, many East Asian firms have sales in multiple segments. This could mean that our method of using industry dummies for the main segment in which each firm operates does not capture the effects of difference in industry-orientation completely. To overcome these difficulties, we calculate an industry-adjusted, excess market valuation measure as the ratio of the firm's actual market value to its imputed value. This excess value measure has often been used to evaluate the impact of firm diversification on market valuation, following on Berger and Ofek (1995). It is also appropriate as a measure to study the effects of ownership structure on market values as it provides a relative value, by taking the ratio of market value to sales or assets, while adjusting (by construction) for industry differences. We first present the formal procedure for constructing the excess variable measure and then follow with an example from the data.

Specifically, the excess value variable, EXV, is calculated as follows. First, we compute the market-to-sales ratio as the firm's market capitalization, the stock price times the number of outstanding shares, divided by sales revenue.[11] We then multiply the industry-median ratio, defined as the median value of EXV among all single segment (including widely-held) firms in the industry, by the level of sales in each corresponding segment of a firm. The imputed value of the firm is then obtained by summing the multiples across all segments. We hence rely only sales data net of excise taxes (and stock market prices) in the construction of the valuation variable. These are all flow figures and less affected by the differences in accounting standards across the sample countries. All financial data are converted to US dollars using end-year exchange rates.

We restrict the number of single-segment firms to be at least three when computing the median market-to-sales ratio of an industry. When a two-digit SIC industry has fewer than three single-segment firms, we use the median ratio of the corresponding broad industry group as defined by Campbell (1996). When an industry, even defined broadly, has fewer than three single-segment firms, we use the median of all firms in the country.[12] Because of these data

[11] Berger and Ofek (1995) calculate market values relative to both assets and sales by segment. Asian firms generally do not report assets breakdown by segments. We therefore can calculate the ratio of market values to sales only.

[12] This procedure avoids the loss of observations but could introduce a bias in the excess value measure. The bias is inversely related to the availability of single-segment firms. For most firms in our sample, we are able to find matching single-segment firms at the narrow or broad industry group level. We therefore do not expect such bias to be significant.

limitations, we end up with a slightly smaller sample of firms (2098 versus 2368 in our basic regression result.

We use Amsteel Corporation BHD, the third largest steel producer in Malaysia, to illustrate the excess value measure we construct (Table 10). The market-to-sales ratio of Amsteel is 1.62, the ratio of total market capitalization (US$3,120 million) to total sales (US$1,929 million). We are able to identify nine steel producing Malaysian firms in the sample. Their median market-to-sales ratio is 1.68. Dividing Amsteel's ratio by the median industry ratio for steel firms, we obtain the conventional industry-adjusted value, 0.96. By this measure, Amsteel's performance is roughly comparable to the rest of the industry.

However, as shown in Panel B, steel sales accounts for only 24 percent of Amsteel's total sales revenues. The remaining 76 percent of revenues come from five other industries: retailing and distribution (23%), motors (23%), food and agricultural products (12%), computers (11%), and property development (7%). Using the conventional method of matching firms by industry peers, the performance of the non-steel segments, which comprise three-quarters of the firm's revenues, is left unadjusted. Moreover, the matching firms could be diversified firms as well. In fact, of the nine steel-producing firms in Malaysia, only four are single-segment firms. The remaining five firms also operate in non-steel industries. The median ratio computed for these firms thus does not properly reflect the valuation of the steel industry in Malaysia.

To mitigate these problems, we adjust industry performance at the segment level instead of the firm level. For each of the Amsteel's six segments, we restrict its industry-matching firms to be single-segment firms. We first select firms that generate over 90 percent of revenues from one 2-digit SIC industry. We find four such firms for the steel segment and five for the food and agricultural segment. We are not able to find a sufficient number of single-segment firms for the

remaining four segments. For these segments, we search for single-segment firms within the broad industry groups as defined by Campbell (1996). We are able to find at least three matching firms for all four segments.

Once the appropriate matching firms are identified, we compute the median market-to-sales ratios for each of the segments. These ratios are reported in the last column of Panel B. To obtain Amsteel's imputed market-to-sales ratio, we multiply each of the segment ratios by the corresponding sales revenue fractions and sum the multiples across the six segments. The imputed ratio is 2.50. It is substantially higher than 1.68, the median market-to-sales ratio computed using the conventional method. The difference derives from two sources. First, the steel segment's market-to-sales ratio (2.35), estimated from single-segment firms, is quite different from the ratio (1.68) computed in the conventional method which includes both single- and multi-segment firms. Second, the six industries have different median market-to-sales ratios which range from 1.65 (the Motors segment) to 4.96 (the Property segment). The weighted average across the six segments is thus higher than the conventional measure. We next multiply Amsteel's imputed market-to-sales ratio by total sales revenue to obtain the imputed valuation, US$4,823 million. Dividing actual value by imputed value, we obtain a revised value ratio of 0.65. By this measure, Amsteel has considerably under-performed its industry peers.

Tables 11-13 provide the regression results corresponding to Tables 5, 8 and 9, but now using the EXV measure as the dependent variable instead of Tobin's q. Otherwise, the specifications of the regressions are the same, except that we do not include the sales growth variable as an additional control variable (the sales growth variable is not clearly defined as we would need to use sales figures at the individual segment level). The results of the main regression, Table 11, Panel A, are very similar to those of Table 5, Panel A. Both cash flow

rights and the ratio of cash flow rights to voting rights have statistically significant positive coefficients. The main difference is that the coefficient for the voting rights variable is now statistically significant negative when also included with the ratio variable and negative when included as the only ownership variable. This suggests that there might be a direct negative effect of voting rights alone, not just when there are large deviations between cash flow rights and voting rights. This is further suggested by the results of Panel B where the cut-off limit for control is raised to 20%. In this specification, the coefficient for voting rights is statistically significant negative when included alone (and with the deviation variable). It might be that the negative effects of control stakes occur at higher ownership stakes. This, together with the correction for the fact that firms operate in multiple segments, may explain why we now find this negative effect.

Investigating the country-specific regression results, we find that the main results are confirmed. In Japan (Table 12), for the full sample, cash flow rights are positive related to excess value, while voting rights are negatively related when also including the ratio of cash flow rights to voting rights. The ratio itself has a positive statistically significant coefficient, with a value about twice as high as compared to the regression results when using Tobin's q. As before, we find that the results may be due to ownership by financial institutions. There are no statistically significant effects for the other ownership classes.

The results for the other countries using excess value as dependent variable show a similar change compared to the results using Tobin's q (Table 13). For the Malaysia, Singapore, and Taiwan samples, none of the coefficients on cash flow rights, voting rights and the separation of voting from cash-flow rights are statistically. The results for Hong Kong are significant for the cash flow rights, voting rights and cash-flow over voting rights variables. We find a negative,

statistically significant coefficients for voting rights and a positive statistically significant coefficient for the cash flow over voting rights variable. In case of Indonesia, Philippines and Thailand, we find very large significant coefficients for the cash flow over voting rights variable, 1.530, 1.425 and 1.552 respectively. For Korea sample, we find a statistically significant result for the cash-flow over voting rights variable, which is similar in magnitude.

VI. Conclusions

This paper documents the relation between concentration of ownership and control and their separation, on the one hand, and market valuation, on the other hand. We find that higher cash-flow rights are associated with higher market valuation, but higher voting rights with lower market valuation. The separation of control from ownership is associated with lower market values, which we interpret as evidence of expropriation of minority shareholders by controlling shareholders. Studying individual ownership classes, we find that all ownership concentration classes except for corporations are behind the negative relation between deviations of cash flow rights from control rights and market valuation. In Japan separation of cash-flow and voting rights in the hands of financial institutions lowers market valuation. This dollar value is in turn a good proxy for the decrease in utility levels of minority shareholders, the ultimate variable on which economic inefficiency depends. The results on expropriation are the confirmed for most of the individual country samples. We conclude that the risk of expropriation is the major principal-agent problem for large publicly-traded corporations. This risk may lead to large social costs, as profitable investment opportunities are foregone for lack of equity financing.

It is likely that the degree to which certain ownership structures are associated with expropriation depends on country-specific circumstances. These may include the quality of

banking systems, the legal and judicial protection of individual shareholders, and the degree of financial disclosure required. The exact magnitude to which these institutional variables affect the degree of expropriation is an issue of important policy relevance and of potential future research.

Several interesting questions merit further investigation. First, what ways to restrict the separation of ownership and control are most effective in balancing the effects of improved monitoring, as a result of ownership concentration, with the risks of expropriation? Second, the fact that expropriation exists leaves unanswered the question why minority shareholders invest in companies if they fear (and rationally so) expropriation in the future. One answer could be that these shareholders face limited investment opportunities. While they may fear expropriation, other investment alternatives do not yield higher risk-adjusted returns. A financially repressed financial system, for example, with low bank deposit rates and limited capital account convertibility might well mean that the net returns on stocks are still attractive, even though there is (widespread) expropriation. These and other issues are left unexplored here.

References

Aganin, Alexander, and Paolo Volpin, 1998, "On the Origin and Evolution of Pyramidal Groups: An Empirical Evaluation," Harvard University, mimeo.

Asian Company Handbook. 1998. *Toyo Keizai Shinposha*, Tokyo, Japan, Winter Edition.

Backman, Michael, 1999, "Asian Eclipse: Exposing the Dark Side of Business in Asia," John Wiley & Sons (Asia), Singapore.

Barclay, Michael and Clifford Holderness, 1989, "Private Benefits from Control of Public Corporations," *Journal of Financial Economics*, 25: 371-95.

Bebchuk, Lucian, Reinier Kraakman, and George Triantis, 1999, "Stock Pyramids, Cross-Ownership, and Dual Class Equity: The Creation and Agency Costs of Separating Control from Cash Flow Rights," NBER working paper 6951, National Bureau of Economic Research, Cambridge, MA, February.

Bebchuk, Lucian, 1999, "A Rent-Protection Theory of Corporate Control and Ownership," NBER working paper 7203, National Bureau of Economic Research, Cambridge, MA, July.

Becht, Marco, and Ariane Chapelle, 1999, "Ownership and Control in Belgium," Solvay Business School, Brussels, mimeo.

Bergstrom, Clas and Kristian Rydqvist, 1990, "Ownership of Equity in Dual-Class Firms," *Journal of Banking and Finance*, 14: 255-269.

Berle, Adolf and Gardiner Means, 1932, *The Modern Corporation and Private Property*, New York, MacMillan.

Berger, Philip G. and Eli Ofek, 1995, "Diversification's Effect on Firm Value," *Journal of Financial Economics,* 37, 39-65.

Bloch, Laurence, and Elizabeth Kremp, 1999, "Ownership and Control in France," INSEAD Business School, mimeo.

Burkart, Mike, Denis Gromb, and Fausto Panunzi, 1998, "Why High Takeover Premia Protect Minority Shareholders," *Journal of Political Economy*, 106, 1: 172-204.

Campbell, John, 1996, "Understanding Risk and Return", *Journal of Political Economy,* 104: 298-345.

Claessens, Stijn, Simeon Djankov, and Larry Lang, 2000, "The Separation of Ownership and Control in East Asian Corporations", *Journal of Financial Economics*, forthcoming.

Claessens, Stijn, Simeon Djankov, Joseph Fan, and Larry Lang, 1999, "The Costs and Benefits of Internal Markets: Evidence from the East Asian Crisis", World Bank, mimeo.

DeAngelo, Harry, and Linda DeAngelo, 1985, "Managerial Ownership of Voting Rights: A Study of Public Corporations with Dual Classes of Common Stock," *Journal of Financial Economics*, 14, 1: 33-69.

De Jong, Abe, Rezaul Kabir, Teye Marra, and Ailsa Roell, 1999, "Ownership and Control in the Netherlands," Tilburg University, mimeo.

Demsetz, Harold, 1983, "Corporate Control, Insider Trading, and Rates of Return," *American Economic Review*, 86: 313-316.

Demsetz, Harold and Kenneth Lehn, 1985, "The Structure of Ownership: Causes and Consequences," *Journal of Political Economy*, 93: 1155-77.

Enriques, Luca, 1998, "Pyramid Groups, Intra-Group Operations, and the Separation between Ownership and Control in Italy," forthcoming in *Giurizpridenzia Commerciali*.

Grossman, Sanford, and Oliver Hart, 1988, "One-Share, One-Vote, and the Market for Corporate Control," *Journal of Financial Economics*, 20, 175-202.

Gugler, Klaus, Alex Stomper, and Josef Zechner, 1999, "The Separation of Ownership and Control: An Austrian Perspective," University of Vienna, mimeo.

Harris, Milton and Artur Raviv, 1988, "Corporate Governance: Voting Rights and Majority Rules," *Journal of Financial Economics*, 20: 203-235.

Holderness, C. and D. Sheehan, 1988, "The role of majority shareholders in publicly held companies," *Journal of Financial Economics*, 20: 317-346.

Horner, M., 1988, "The Value of The Corporate Voting Right," *Journal of Banking and Finance*, 12: 69-83.

Japan Company Handbook. 1998. *Toyo Keizai Shanposha*, Tokyo, Japan, Winter Edition.

Jensen, Michael, and William Meckling, 1976, "Theory of the Firm: Managerial Behavior, Agency Costs, and Ownership Structure," *Journal of Financial Economics*, 11: 5-50.

Kang, Jun-Koo and Rene Stulz, 2000, "Do Banking Shocks Affect Borrowing Firm Performance? An Analysis of the Japanese Experience," *Journal of Financial Economics*, forthcoming.

La Porta, Rafael, Florencio Lopez-de-Silanes, Andrei Shleifer, and Robert W. Vishny, 1998, "Law and Finance," *Journal of Political Economy*, 106, 4: 1113-1155.

La Porta, Rafael, Florencio Lopez-de-Silanes, and Andrei Shleifer, 1999a, "Corporate Ownership around the World," *Journal of Finance,* 54, 2: 471-518.

La Porta, Rafael, Florencio Lopez-de-Silanes, Andrei Shleifer, and Robert W. Vishny, 1999b, "Investor Protection and Corporate Valuation," Harvard University, mimeo.

Lang, Larry H.P. and René M. Stulz, 1994, "Tobin's q, Corporate Diversification, and Firm Performance," *Journal of Political Economy,* 102: 1248-1280.

Lease, Ronald, McConnell, John, and Wayne Mikkelson, 1984, "The Market Value of Differential Voting Rights in Closely held Corporations," *Journal of Business,* 57, 4: 443-467.

Levy, Haim, 1982, "Economic Valuation of Voting Power of Common Stock," *Journal of Finance,* 38, 2: 79-93.

Lins, K. and H. Servaes, 1999, "International Evidence on the Value of Corporate Diversification" *Journal of Finance,* forthcoming.

McConnell, John and Henri Servaes, 1990, "Additional Evidence on Equity Ownership and Corporate Value," *Journal of Financial Economics,* 27: 595-612.

Megginson, William, 1990, "Restricted Voting Stock, Acquisition Premiums, and the Market Value of Corporate Control," *The Financial Review,* 25: 175-198.

Morck, Randall, Andrei Shleifer, and Robert Vishny, 1988, "Management Ownership and Market Valuation: An Empirical Analysis," *Journal of Financial Economics,* 20: 293-315.

Morck, Randall, David Stangeland, and Bernard Yeung, 1998, "Inherited Wealth, Corporate Control and Economic Growth: The Canadian Disease," NBER working paper 6814, National Bureau of Economic Research, Cambridge, MA, November.

Morck, Randall, and Masao Nakamura, 1999, "Banks and Corporate Control in Japan," *Journal of Finance*, 54, 1: 319-339.

Nenova, Tatiana, 1999, "The Value of a Corporate Vote and Private Benefits: Cross-Country Analysis," Working paper, Harvard University.

Robinson, C, and A. White, 1990, "The Value of a Vote in the Market for Corporate Control, " York University, mimeo.

Shleifer, Andrei, and Lawrence Summers, 1988, "Breach of Trust in Hostile Takeovers," in *Corporate Takeovers: Causes and Consequences*, Alan Auerbach, (ed.), National Bureau of Economic Research, Chicago and London, University of Chicago Press.

Shleifer, Andrei and Robert Vishny, 1986, "Large Shareholders and Corporate Control," *Journal of Political Economy*, 94: 461-488.

Shleifer, Andrei and Robert Vishny, 1997. "A survey of corporate governance," *Journal of Finance*, 52: 737-783.

Weinstein, David and Yishay Yafeh, 1998, "On the Costs of a Bank-Centered Financial System," *Journal of Finance*, 53: 635-672.

Wolfenzon, Daniel, 1999, "A Theory of Pyramidal Structures," Harvard University, mimeo, February.

Zingales, Luigi, 1994, "The Value of the Voting Right: A Study of the Milan Stock Exchange Experience," *Review of Financial Studies*, 7, 1: 125-148.

Zingales, Luigi, 1995, "What Determines the Value of Corporate Votes?," *Quarterly Journal of Economics*, 110, 4: 1047-1073.

Table 1: Cross-Holdings among the Main Companies in the Fuyo Group
(in percentage)

This table shows the cross-holdings among the main members of the Fuyo group, the fourth largest keiretsu in Japan. The rows show ownership and control in the respective column entries. Cash-flow rights are denoted with "C" and voting rights are denoted with "V." For example, Fuji Bank has C&V 4.9% in Oki Electric, C&V 16.8% in Yasuda Trust Bank, etc. Marubeni Corporation has C&V 0.4% in Fuji Bank, C&V 0.3% in Oki Electric, C&V 2.4% in Yasuda Trust Bank, etc.

Owner/Recipient	**Fuji Bank**	**Oki Electric**	**Yasuda Trust Bank**	**Marubeni Corp.**	**Yasuda Fire and Marine**	**Nippon Seiko**	**Nihon Cement**	**Showa Denko**	**Nippon Kokkan**
Fuji Bank	--	C&V 4.9	C&V 16.8	C&V 4.7	C&V 5.0	C&V 4.1	C&V 4.8	C 4.1; V 5.3	--
Oki Electric	C&V 7.5	--	C&V 3.4	C&V 0.8	C&V 2.6	C&V 0.9	C&V 1.0	C&V 1.1	--
Yasuda Trust Bank	C&V 2.8	C&V 4.9	--	C&V 5.1	C&V 4.9	C&V 7.2	C&V 2.9	C&V 2.3	--
Marubeni Corp.	C&V 0.4	C&V 0.3	C&V 2.4	--	C&V 6.0	--	--	--	C&V 1.7
Yasuda F&M	C&V 1.2	C&V 7.0	C&V 2.2	C&V 3.9	--	C&V 6.2	C&V 2.1	C&V 5.1	C&V 2.3
Nippon Seiko	C&V 1.1	C&V 0.6	C&V 1.1	C&V 0.3	--	--	--	--	C&V 1.9
Nihon Cement	C&V 1.5	C&V 1.1	C&V 1.4	C&V 0.2	C&V 0.9	--	--	C&V 0.9	C&V 1.4
Showa Denko	C&V 1.0	--	--	C&V 0.4	C&V 0.6	--	C&V 0.9	--	C&V 1.1
Nippon Kokkan	--	C&V 1.0	C&V 1.0	--	--	C&V 1.2	C&V 0.7	C&V 0.7	--
Yasuda Life Insurance	**C&V 4.4**	**C&V 7.5**	**C&V 8.6**	**C 4.7; V 6.5**	**C&V 4.2**	**C&V 4.4**	**C&V 5.2**	**C 4.8; V 5.6**	**C&V 5.1**

Table 2: Control of Publicly-Traded Companies in East Asia
(percentage of the total number of companies in the sample)

Newly-assembled data for 2,980 publicly-traded corporations (including both financial institutions and non-financial institutions) are based on Worldscope, supplemented with information from the Asian Company Handbook 1999 (1998), the Japan Company Handbook 1999 (1998), the Securities Exchange of Thailand Companies Handbook (1998), and the Singapore Investment Guide (1998). In all cases, we collect the ownership structure as of December 1996 or the end of the 1996 fiscal year.

Country	Number of Corporations in Sample	Share of Firms under Ultimate Control	Of which			
			Family	State	Widely Held Financial	Widely Held Corporation
10% cut-off for voting rights of the largest shareholder						
Hong Kong	330	99.4	64.7	3.7	7.1	23.9
Indonesia	178	99.4	68.6	10.2	3.8	16.8
Japan	1240	58.0	13.1	1.1	38.5	5.3
Korea	345	85.7	67.9	5.1	3.5	9.2
Malaysia	238	99.0	57.5	18.2	12.1	11.2
Philippines	120	98.4	42.1	3.6	16.8	35.9
Singapore	221	98.6	52.0	23.6	10.8	12.2
Taiwan	141	97.1	65.6	3.0	10.4	18.1
Thailand	167	97.9	56.5	7.5	12.8	21.1
20% cut-off for voting rights of the largest shareholder						
Hong Kong	330	93.1	66.7	1.4	5.2	19.8
Indonesia	178	94.9	71.5	8.2	2.0	13.2
Japan	1240	20.2	9.7	0.8	6.5	3.2
Korea	345	56.8	48.4	1.6	0.7	6.1
Malaysia	238	89.6	67.2	13.4	2.3	6.7
Philippines	120	80.9	44.6	2.1	7.5	26.7
Singapore	221	94.5	55.4	23.5	4.1	11.5
Taiwan	141	73.7	48.2	2.8	5.3	17.4
Thailand	167	93.5	61.6	8.0	8.6	15.3

Table 3: Separation of Cash-Flow and Voting Rights in East Asian Corporations (Largest Control Holder)

The newly-assembled data for 2,980 publicly-traded corporations (including both financial institutions and non-financial institutions) are collected from Worldscope, the Asian Company Handbook, the Japan Company Handbook, the Securities Exchange of Thailand Companies Handbook (1998), the Singapore Investment Guide (1998). In all cases, the data are as of December 1996 or the end of the 1996 fiscal year. A company needs to have an ultimate controlling owner to be included in this table. Panel A includes only companies with an investor who holds at least 10% of the voting rights, Panel B only companies with an investor who holds at least a 20% of the voting rights.

Panel A: Companies With an Investor Who Holds at Least 10% of Voting Rights

Country	Number of Corporations	Number of Corporations Where Voting Exceed Cash-Flow Rights	Cash-Flow Rights			Voting Rights			Ratio of Cash-Flow to Voting Rights		
			Mean	Standard Deviation	Median	Mean	Standard Deviation	Median	Mean	Standard Deviation	Median
Hong Kong	327	89	27.519	11.878	26.000	31.834	11.335	29.000	0.873	0.225	1.000
Indonesia	177	108	27.712	13.264	26.000	36.669	11.692	36.000	0.758	0.248	0.809
Japan	706	454	10.843	10.608	8.000	15.801	8.624	12.000	0.606	0.350	0.600
Korea	293	80	20.839	9.533	20.000	23.942	9.334	23.000	0.882	0.216	1.000
Malaysia	237	94	26.245	12.289	24.000	31.633	11.110	32.000	0.831	0.232	1.000
Philippines	117	40	25.068	12.202	23.000	27.894	11.354	25.000	0.892	0.197	1.000
Singapore	215	150	23.009	11.492	22.000	30.395	10.364	31.000	0.742	0.221	0.750
Taiwan	135	61	20.215	10.335	21.000	24.335	9.612	23.000	0.815	0.225	1.000
Thailand	164	25	36.577	13.294	36.000	39.042	12.779	42.000	0.941	0.161	1.000
East Asia	2,371	1,101	21.296	13.794	20.000	26.173	12.928	24.000	0.773	0.291	1.000

Panel B: Companies With an Investor Who Holds at Least 20% of Voting Rights

Country	Number of Corporations	Number of Corporations Where Voting Exceed Cash-Flow Rights	Cash-Flow Rights			Voting Rights			Ratio of Cash-Flow to Voting Rights		
			Mean	Standard Deviation	Median	Mean	Standard Deviation	Median	Mean	Standard Deviation	Median
Hong Kong	303	88	28.554	11.711	26.000	33.194	10.634	31.000	0.864	0.231	1.000
Indonesia	166	107	28.698	13.077	26.000	38.195	10.383	41.000	0.747	0.244	0.781
Japan	238	84	21.293	11.912	20.000	25.356	8.771	20.000	0.814	0.301	1.000
Korea	195	64	24.738	9.251	24.000	28.907	7.360	26.000	0.857	0.229	1.000
Malaysia	212	89	27.797	12.051	26.000	33.737	9.784	32.000	0.817	0.238	1.000
Philippines	94	36	28.181	11.604	25.000	31.524	9.594	31.000	0.879	0.208	1.000
Singapore	195	137	24.369	11.162	22.000	32.143	9.214	32.000	0.743	0.220	0.750
Taiwan	98	45	23.888	9.528	23.500	28.551	7.846	25.500	0.829	0.203	1.000
Thailand	153	24	38.264	12.095	36.300	40.874	11.154	42.000	0.942	0.164	1.000
East Asia	1,654	674	27.084	12.302	25.000	32.348	10.541	31.000	0.829	0.241	1.000

Table 4: The Sample of Firms by Industry

This table shows the distribution of sample firms across industries. All firms, including those without an ultimate controlling owner are included. The industrial classification is based on Campbell (1996). The sectors are defined as follows: Petroleum industry (SIC 13 and 29); Finance and Real Estate (SIC 60-69); Consumer Durables (SIC 25, 30, 36, 37, 50, 55, and 57); Basic Industry (SIC 10, 12, 14, 24, 26, 28, 33); Food and Tobacco (SIC 1, 20, 21, 54); Construction (SIC 15-17, 32, 52); Capital Goods (SIC 34, 35, and 38); Transportation (SIC 40-42, 44, 45, and 47); Utilities (SIC 46, 48, and 49); Textiles and Trade (SIC 22-23, 31, 51, 53, 56, 59); Services (SIC 72-73, 75, 80, 82, 89); and Leisure (SIC 27, 58, 70, 78-79).

Sectors	Petroleum Industry	Finance and Real Estate	Consumer Durables	Basic Industry	Food and Tobacco	Construction	Capital Goods	Transportation	Utilities	Textiles and Trade	Services	Leisure	Total
Hong Kong	1	100	57	10	13	22	22	20	9	44	6	26	330
Indonesia	1	46	18	24	20	4	12	4	5	33	7	4	178
Japan	22	159	247	173	79	111	203	60	26	87	51	22	1240
Korea	12	61	59	55	20	44	35	6	6	35	4	8	345
Malaysia	4	61	17	22	17	49	8	10	9	15	15	11	238
Philippines	6	41	7	14	18	11	3	1	8	6	3	2	120
Singapore	3	45	44	16	18	14	21	12	4	9	15	20	221
Taiwan	2	11	28	24	15	14	16	6	2	17	4	2	141
Thailand	1	55	29	12	11	16	6	5	7	10	7	8	167
East Asia	52	579	506	350	211	285	326	124	76	256	112	103	2980

Table 5: Cash-Flow Rights, Voting Rights, and Firm Value

This table presents the regression results for the relationship between firm valuation (TOBINQ) and the distribution of cash-flow and control rights. The independent variables include the share of cash-flow rights held by the largest block-holder (CASH), the share of voting rights held by the largest block-holder (VOTES), and the ratio of cash flow to voting rights (CASH/VOTES). Total capital expenditures over sales (CES) is included as a control variable. The growth of sales revenue over the year (SGROWTH) is also included as a control variable. The regressions are performed on the full sample using the ordinary least-square method. All data are for 1996. Companies which do not have a block-holder with at least 10% of the vote or which do not report capital expenditures are excluded from Panel A. Companies which do not have a block-holder with at least 20% of the vote or which do not report capital expenditures or stock prices are excluded from Panel B. Absolute values of t-statistics are reported under the coefficients. An intercept term is included in all regressions (not shown). The 12 industry dummies described in Table 4 are used as independent variables, with the Leisure sector as a numeraire (not shown).

Panel A

Explanatory Variable	TOBINQ	TOBINQ	TOBINQ
CASH	0.005**		
	3.93		
VOTES		0.002	-0.002
		1.46	0.16
CASH/VOTES			0.267**
			6.35
SGROWTH	0.267*	0.290*	0.264*
	2.35	2.30	2.21
CES	0.001**	0.001**	0.001**
	4.18	4.38	4.86
Number of Observations	2,368	2,368	2,368
Adjusted R^2	0.059	0.052	0.063

Panel B

Explanatory Variable	TOBINQ	TOBINQ	TOBINQ
CASH	0.004**		
	2.45		
VOTES		-0.002	-0.003
		0.96	1.56
CASH/VOTES			0.392**
			5.93
SGROWTH	0.423**	0.444**	0.451**
	4.73	4.92	5.12
CES	0.001**	0.001**	0.001**
	2.28	2.57	3.25
Number of Observations	1,650	1,650	1,650
Adjusted R^2	0.051	0.047	0.062

* and ** represent significance at the 5 and 1 percent level respectively.

Table 6: Robustness Check on Firm Value

(financial data for 1995)

This table presents the regression results for the relationship between firm valuation (TOBINQ) and the distribution of cash-flow and control rights. The independent variables include the share of cash-flow rights held by the largest block-holder (CASH), the share of voting rights held by the largest block-holder (VOTES), and the ratio of cash flow to voting rights (CASH/VOTES). Total capital expenditures over sales (CES) is included as a control variable. The growth of sales revenue over the year (SGROWTH) is also included as a control variable. The regressions are performed on the full sample using the ordinary least-square method. All data are for 1995. Companies which do not have a block-holder with at least 10% of the vote or which do not report capital expenditures are excluded from Panel A. Companies which do not have a block-holder with at least 20% of the vote or which do not report capital expenditures or stock prices are excluded from Panel B. Absolute values of t-statistics are reported under the coefficients. An intercept term is included in all regressions (not shown). The 12 industry dummies described in Table 4 are used as independent variables, with the Leisure sector as a numeraire (not shown).

Panel A

Explanatory Variable	TOBINQ	TOBINQ	TOBINQ
CASH	0.007**		
	6.04		
VOTES		0.005**	0.003
		2.91	1.63
CASH/VOTES			0.293**
			6.39
SGROWTH	0.243**	0.254**	0.245**
	3.21	3.28	3.19**
CES	0.002**	0.002**	0.002
	6.44	6.37	6.70
Number of Observations	2,011	2,011	2,011
Adjusted R^2	0.074	0.062	0.076

Panel B

Explanatory Variable	TOBINQ	TOBINQ	TOBINQ
CASH	0.006**		
	3.29		
VOTES		0.004	-0.001
		0.20	0.43
CASH/VOTES			0.411**
			5.44
SGROWTH	0.273**	0.286**	0.312**
	2.89	2.97	3.23
CES	0.002**	0.002**	0.002**
	4.62	4.71	5.30
Number of Observations	1,366	1,366	1,366
Adjusted R^2	0.052	0.043	0.061

* and ** represent significance at the 5 and 1 percent level respectively.

Table 7: Cash-Flow and Voting Rights, and Firm Valuation
(By Ownership Types)

This table presents the regression results of the relationship between firm valuation (TOBINQ) and the concentration of cash-flow and control rights. The independent variables include the share of cash-flow rights held by the largest block-holder (CASH), the share of voting rights held by the largest block-holder (VOTES), and the ratio of cash flow to voting rights (CASH/VOTES). Total capital expenditures over sales (CES) is included as a control variable. The growth of sales revenue over the year (SGROWTH) is also included as a control variable. The regressions are performed on the sample using the ordinary least-square method. All data are for 1996. Companies which do not have a block-holder with at least 10% of the vote or which do not report capital expenditures are excluded. Absolute values of t-statistics are reported under the coefficients. An intercept term is included in all regressions (not shown). The 12 industry dummies described in Table 4 are used as independent variables, with the Leisure sector as a numeraire (not shown).

Explanatory Variable	Family Ownership			Financial Institutions			Corporations			The State or Municipality		
	TOBINQ	TOBINQ	TOBINQ	TOBINQ	TOBINQ	TOBINQ	TOBINQ	TOBINQ	TOBINQ	TOBINQ	TOBINQ	TOBINQ
CASH	0.003			0.007**			0.005			0.009**		
	1.79			2.49			1.18			2.64		
VOTES		-0.001	0.001		0.001	-0.003		0.003	0.003		0.005	0.005
		0.65	0.43		0.34	1.09		0.93	0.81		1.71	1.48
CASH/VOTES			0.271**			0.313**			0.263			0.632**
			3.16			4.05			1.15			2.60
SGROWTH	0.242	0.243	0.248	0.489**	0.612**	0.565**	0.167	0.162	0.168	0.552*	0.523*	0.611*
	1.71	1.64	1.59	2.51	3.06	3.01	0.94	0.91	0.96	2.08	1.97	2.20
CES	0.001*	0.001*	0.001**	0.001**	0.001**	0.001**	0.001	0.001	0.001	0.003*	0.003**	0.003*
	2.17	2.38	2.94	2.76	2.79	2.89	1.61	1.65	1.68	2.46	2.51	2.36
Observations	1,319	1,319	1,319	561	561	561	302	302	302	176	176	176
Adjusted R^2	0.027	0.024	0.031	0.158	0.147	0.172	0.059	0.056	0.055	0.132	0.110	0.132

* and ** represent significance at the 5 and 1 percent level respectively.

Table 8: Cash-Flow and Voting Rights, and Firm Valuation in Japan
(By Ownership Types)

This table presents the regression results of the relationship between firm valuation (TOBINQ) and the concentration of cash-flow and control rights. The independent variables include the share of cash-flow rights held by the largest block-holder (CASH), the share of voting rights held by the largest block-holder (VOTES), and the ratio of cash flow to voting rights (CASH/VOTES). Total capital expenditures over sales (CES) is included as a control variable. The growth of sales revenue over the year (SGROWTH) is also included as a control variable. The regressions are performed on the sample using the ordinary least-square method. All data are for 1996. Companies which do not have a block-holder with at least 10% of the vote or which do not report capital expenditures are excluded. Absolute values of t-statistics are reported under the coefficients. An intercept term is included in all regressions (not shown). The 12 industry dummies described in Table 4 are used as independent variables, with the Leisure sector as a numeraire (not shown). There are only 14 companies with significant state ownership, hence this ownership type is excluded from the table.

Explanatory Variable	Full Sample			Family Ownership			Financial Institutions			Corporations		
	TOBINQ	TOBINQ	TOBINQ	TOBINQ	TOBINQ	TOBINQ	TOBINQ	TOBINQ	TOBINQ	TOBINQ	TOBINQ	TOBINQ
CASH	0.004*			-0.002			0.017**			0.003		
	2.07			0.42			4.19			0.74		
VOTES		0.001	-0.003		-0.002	-0.002		0.001	-0.002		0.001	0.002
		0.54	1.10		0.45	0.44		0.30	0.48		0.61	0.51
CASH/VOTES			0.245**			0.224			0.342**			0.226
			4.10			1.00			3.84			0.63
SGROWTH	1.192**	1.213**	1.212**	1.586**	1.584**	1.564	0.912**	0.913**	0.961**	0.309	0.326	0.302
	5.64	5.66	5.85	3.38	3.37	3.32	3.53	3.42	3.79	0.54	0.55	0.52
CES	0.001**	0.001**	0.001**	0.002	0.002	0.002	0.001**	0.001**	0.001**	0.001	0.001	0.001
	2.79	2.58	2.82	1.28	1.28	1.28	3.10	2.64	2.89	0.16	0.12	0.27
Observations	706	706	706	153	153	153	481	481	481	58	58	58
Adjusted R^2	0.142	0.136	0.155	0.084	0.085	0.079	0.219	0.189	0.229	0.021	0.023	0.020

* and ** represent significance at the 5 and 1 percent level respectively.

Table 9: Cash-Flow and Voting Rights, and Firm Valuation (By Country)

The dependent variable is firm valuation (TOBINQ), the independent variables include the share of cash-flow rights (CASH), the share of voting rights (VOTES), the ratio of cash flow to voting rights (CASH/VOTES), a control variable for total capital expenditures over sales (CES). The growth of sales revenue over the year (SGROWTH) is also included as a control variable. The regressions are performed using the ordinary least-square method. All data are for 1996 and companies where the largest block-holder has less than 10% of voting rights are excluded. Absolute values of t-statistics are reported. An intercept term is included in all regressions (not shown). The 12 industry dummies described in Table 4 are used as independent variables, with the Leisure sector as a numeraire (not shown).

Explanatory Variable	Hong Kong			Indonesia			Korea			Malaysia		
CASH	0.008**			0.019**			0.014**			0.008		
	2.79			5.69			2.96			1.04		
VOTES		0.004	0.005		0.007*	0.009**		0.008*	0.010*		0.002	0.002
		1.62	1.89		2.14	2.78		2.12	2.42		0.34	0.33
CASH/VOTES			0.400**			0.875**			0.468**			0.317
			3.52			6.18			3.03			0.45
SGROWTH	0.278	0.242	0.292	0.302	0.287	0.408*	0.352*	0.387*	0.336*	0.753	0.739	0.737
	1.69	1.45	1.80	1.39	1.28	1.98	1.97	2.08	1.98	1.64	1.68	1.67
CES	0.021	0.001	0.040	0.032	0.021	0.002	0.001	0.002	0.001	0.002	0.002	0.002
	0.102	0.48	0.18	0.24	0.79	0.22	0.72	0.86	0.60	1.28	1.22	1.28
Observations	327	327	327	177	177	177	293	293	293	237	237	237
Adjusted R^2	0.038	0.021	0.044	0.289	0.162	0.302	0.108	0.087	0.109	0.019	0.012	0.014
Explanatory Variable	The Philippines			Singapore			Taiwan			Thailand		
CASH	0.009			0.002			0.003			0.003		
	1.90			0.69			0.62			0.93		
VOTES		0.006	0.005		-0.005	-0.005		0.002	0.001		0.001	0.002
		1.25	1.11		1.25	1.33		0.36	0.24		0.31	0.43
CASH/VOTES			0.561*			0.031			0.254			0.372*
			1.97			0.168			1.20			2.06
SGROWTH	0.482*	0.445*	0.517**	-0.172	-0.149	-0.142	0.442	0.449	0.459	0.091	0.090	0.086
	2.15	1.97	2.36	0.64	0.56	0.56	1.32	1.30	1.35	1.59	1.64	1.62
CES	0.001	0.001	0.001	0.002	0.002	0.002	0.002*	0.002*	0.002**	0.001	0.001	0.001
	0.54	0.38	0.77	0.62	0.64	0.62	1.96	1.98	2.06	0.29	0.21	0.42
Observations	117	117	117	212	212	212	135	135	135	164	164	164
Adjusted R^2	0.018	0.011		0.041	0.046	0.043	0.076	0.075	0.075	0.148	0.143	0.146

and ** represent significance at the 5 and 1 percent level, respectively.

Table 10: Construction of the Valuation Measure

Panel A reports basic statistics of Amsteel Corporation and the Malaysian steel industry. Total capitalization is the market value of common equity plus the book value of debt. The market to sales (MTS) ratio is total capitalization divided by total sales. The imputed capitalization is the firm's total sales multiplied by its imputed MTS ratio. The calculation of the imputed MTS ratio is illustrated in Panel B.

Panel A: Industry-adjusted performance of Amsteel Corporation

Total capitalization of Amsteel Corporation (US$ million)	3,120
Total sales of Amsteel Corporation (US$ million)	1,929
Market-to-sales ratio of Amsteel Corporation	1.62
Median MTS ratio of steel producing firms in Malaysia (4 single-segment and 5 multi-segment firms)	1.68
Conventional industry adjusted value of Amsteel (MTS ratio of Amsteel / Median MTS ratio of steel firms)	**0.96**
MTS ratio of Amsteel imputed from single-segment comparables (See Panel B)	2.50
Imputed capitalization of Amsteel (Imputed MTS ratio*Total sales; US$ million)	4,823
Excess value, EXV, of Amsteel (Actual capitalization / imputed capitalization)	**0.65**

Panel B: Imputing Amsteel's market to sales ratio from single-segment peers

Segment Name	SIC code	Segment Sales US$ million	Fraction of Total Sales	Single-segment peers 2-digit SIC industry		Broad industry group (Campbell, 1996)		Imputed MTS of Amsteel's segments
				Number of firms	Median MTS	Number of firms	Median MTS	
Steel	33	462	0.24	4	2.35	9	3.03	2.35
Retail & Distribution	54	445	0.23	0	N.A.	8	2.51	2.51
Motors	55	442	0.23	0	N.A.	5	1.65	1.65
Food & Agricultural	20	236	0.12	5	2.20	8	2.51	2.20
Computers	35	215	0.11	1	N.A.	6	3.35	3.35
Property	67	129	0.07	1	N.A.	22	4.96	4.96
Firm-level value		1,929	1.00					**2.50**

Table 11: Cash-Flow Rights, Voting Rights, and Firm Value

This table presents the regression results for the relationship between excess valuation (EXV) and the distribution of cash-flow and control rights. The independent variables include the share of cash-flow rights held by the largest block-holder (CASH), the share of voting rights held by the largest block-holder (VOTES), and the ratio of cash flow to voting rights (CASH/VOTES). Total capital expenditures over sales (CES) is included as a control variable. The regressions are performed on the full sample using the ordinary least-square method. All data are for 1996. Companies which do not have a block-holder with at least 10% of the vote or which do not report capital expenditures are excluded from Panel A. Companies which do not have a block-holder with at least 20% of the vote or which do not report capital expenditures or stock prices are excluded from Panel B. Absolute values of t-statistics are reported under the coefficients. An intercept term is included in all regressions (not shown).

Panel A

Explanatory Variable	EXV	EXV	EXV
CASH	0.498**		
	3.95		
VOTES		-0.216	-0.607**
		1.58	4.45
CASH/VOTES			0.591**
			10.94
CES	0.129**	0.198**	0.175**
	3.50	5.22	4.67
Number of Observations	2,098	2,098	2,098
Adjusted R^2	0.014	0.012	0.054

Panel B

Explanatory Variable	EXV	EXV	EXV
CASH	0.684**		
	3.96		
VOTES		-0.426*	-0.607**
		2.07	3.04
CASH/VOTES			0.700**
			9.38
CES	0.085	0.158**	0.167**
	1.63	2.93	3.20
Number of Observations	1,465	1,465	1,465
Adjusted R^2	0.011	0.042	0.047

* and ** represent significance at the 5 and 1 percent level respectively.

Table 12: Cash-Flow and Voting Rights, and Expropriation in Japan
(By Ownership Types)

This table presents the regression results of the relationship between excess valuation (EXV) and the concentration of cash-flow and control rights. The independent variables include the share of cash-flow rights held by the largest block-holder (CASH), the share of voting rights held by the largest block-holder (VOTES), and the ratio of cash flow to voting rights (CASH/VOTES). Total capital expenditures over sales (CES) is used as a control variable. The regressions are performed on the sample using the ordinary least-square method. All data are for 1996. Companies which do not have a block-holder with at least 10% of the vote or which do not report capital expenditures or stock returns are excluded. State ownership is also excluded as a category as only 14 firms are controlled by the state and none of them has a separation of cash-flow and control rights. Absolute values of t-statistics are reported under the coefficients. An intercept term is included in all regressions (not shown).

Explanatory Variable	Full Sample			Family Ownership			Financial Institutions			Corporations		
	EXV	EXV	EXV	EXV	EXV	EXV	EXV	EXV	EXV	EXV	EXV	EXV
CASH	0.705**			-0.725			0.028**			-0.179		
	2.51			1.04			5.62			0.276		
VOTES		0.452	-0.846*		-0.908	-0.912		-0.188	-0.757		-0.391	-0.487
		0.13	2.37		1.32	1.33		0.34	1.46		0.54	0.65
CASH/VOTES			0.502**			0.536			0.634**			0.394
			7.01			1.86			7.14			0.80
CES	0.172**	0.157**	0.163**	0.213	0.212	0.218	0.194**	0.177**	0.170**	0.206	0.201	-0.051
	3.49	3.18	3.43	1.53	1.49	1.51	3.70	3.31	3.38	0.05	0.02	0.24
Observations	654	654	654	136	136	136	456	456	456	40	40	40
Adjusted R^2	0.025	0.012	0.076	0.016	0.020	0.020	0.072	0.019	0.109	-0.051	0.009	-0.056

* and ** represent significance at the 5 and 1 percent level respectively.

Table 13: Cash-Flow and Voting Rights, and Expropriation (By Country)

The dependent variable is excess valuation (EXV), the independent variables include the share of cash-flow rights (CASH), the share of voting rights (VOTES), the ratio of cash flow to voting rights (CASH/VOTES), a control variable for total capital expenditures over sales (CES). The regressions are performed using the ordinary least-square method. All data are for 1996 and companies where the largest block-holder has less than 10% of voting rights are excluded. Absolute values of t-statistics are reported. An intercept term is included in all regressions (not shown).

Explanatory Variable	Hong Kong			Indonesia			Korea			Malaysia		
	EXV	EXV	EXV	EXV	EXV	EXV	EXV	EXV	EXV	EXV	EXV	EXV
CASH	-0.636			1.711**			0.010			0.638		
	1.35			4.25			1.80			1.19		
VOTES		-0.017**	-0.016**		-0.462	-0.301		-0.301	-0.001		0.296	0.311
		3.69	3.50		1.05	0.73		0.57	0.02		0.508	0.53
CASH/VOTES			0.433*			1.530**			0.513**			0.405
			2.15			8.37			2.58			1.70
CES	0.424*	0.733*	0.790*	0.435	0.631	0.399	0.187	0.221	0.202	0.675**	0.681**	0.674**
	2.05	2.14	2.25	1.46	1.95	1.36	1.68	1.96	1.79	3.58	3.68	3.54
Observations	327	327	327	177	177	177	178	178	178	237	237	237
Adjusted R^2	0.016	0.054	0.062	0.101	0.019	0.255	0.029	0.0130	0.039	0.043	0.035	0.043
Explanatory Variable	The Philippines			Singapore			Taiwan			Thailand		
	EXV	EXV	EXV	EXV	EXV	EXV	EXV	EXV	EXV	EXV	EXV	EXV
CASH	0.407			0.504			1.418*			0.764		
	0.77			1.09			1.99			1.73		
VOTES		-0.712	-0.924		-0.179	-0.367		1.239	0.953		-0.449	-0.243
		1.48	1.93		0.38	0.77		1.36	1.23		0.97	0.57
CASH/VOTES			1.425**			0.498			0.512			1.552**
			6.87			1.77			1.11			9.02
CES	-0.003	-0.003	-0.019	0.119	0.188	0.185	0.738**	0.713**	0.772*	0.419	0.457	0.402
	1.29	1.30	0.82	0.69	1.12	0.85	2.46	2.60	2.37	1.52	1.54	1.37
Observations	97	97	97	206	206	206	89	89	89	133	133	133
Adjusted R^2	0.062	0.072	0.144	-0.048	-0.087	0.013	0.082	0.074	0.078	0.033	0.029	0.119

* and ** represent significance at the 5 and 1 percent level, respectively.

Table A1: Sources of Ownership and Control Data for East Asian Firms

Country	Immediate Ownership Data	Dual-Class Shares	Business Groups: Pyramids and Cross-Holdings
Hong Kong	Worldscope Asian Company Handbook Hong Kong Company Handbook 1997	Datastream	Chu, Yin-Wah and Gary Hamilton, 1993, Business Networks in Hong Kong, University of California, Davis, mimeo. Far Eastern Economic Review, 1992, Have Cash, Will Travel, March 5, Special Section on the Li ka-Shing Conglomerate Hong Kong Company Handbook, 1998
Indonesia	Worldscope Asian Company Handbook Handbook of Indonesian Companies 1996	Datastream Handbook of Indonesian Companies 1996	Fisman, Ray, 1998, Announcement Effects of Suharto's Illnesses on Related Companies, Working paper, Harvard Business School. W.I.Carr Banque Indosuez Group, 1997, Indonesian Group Connections, Jakarta, Indonesia Indobusiness, 1998, 1995 Ranking of Indonesian Largest Conglomerates, available at http://indobiz.com/company/warta/conglo/htm
Japan	Worldscope Japan Company Handbook	Datastream	Dodwell Marketing Consultants, 1997, Industrial Groupings in Japan: the Anatomy of the "Keiretsu," 12th Edition, 1996/1997, Tokyo, Japan. Sato, Kazuo, 1984, "The Anatomy of Japanese Businesses," M.E.Sharpe, Chapter 4.
Korea (South)	Worldscope Asian Company Handbook	Datastream	Korean Fair Trade Commission, 1997, 1996 List of Largest 30 Chaebol, Seoul, Korea. Lim, Ungki, 1998, Ownership Structure and Family Control in Korean Conglomerates: with Cases of the 30 Largest Chaebol, Seoul University, Korea.

Table A1 (continued)

Country	Immediate Ownership Data	Dual-Class Shares	Business Groups: Pyramids and Cross-Holdings
Philippines	Worldscope	Datastream	Philippine Stock Exchange, 1997, Investment Guide 1996, Manila.
	Asian Company Handbook	Philippine Stock Exchange Investments Guide 1997	Tan, Edita, 1993, Interlocking Directorates, Commercial Banks, Other Financial Institutions, and Non-Bank Corporations, Philippine Review of Economics and Business, 30, 1-50.
	Philippine Stock Exchange Investments Guide 1997		
Singapore	Worldscope	Datastream	Singapore Stock Exchange, 1997, Singapore Company Handbook.
	Asian Company Handbook	Singapore Investment Guide 1997	Hiscock, Geoff, 1998, Asia's Wealth Club, Nicholas Brealey.
Taiwan	Worldscope	Datastream	China Credit Information Service, 1997, Business Groups in Taiwan, 1996-1997, Taipei, Republic of China.
	Asian Company Handbook		Far Eastern Economic Review, 1994, The Money Machine, August 11, for the corporate holdings of the Kuomintang.
Thailand	Worldscope	Datastream	Tara Siam Ltd., 1997, Thai Business Groups 1996/1997: A Unique Guide to Who Owns What, Bangkok, Thailand.
	Asian Company Handbook	Securities Exchange of Thailand Companies Handbook 1997	The Nation, 1998, Thai Tycoons: Winners and Losers in the Economic Crisis, July, Special Issue.
	Securities Exchange of Thailand Companies Handbook 1997		Far Eastern Economic Review, 1997, From Chickens to Microchips: the Story of Thai Conglomerates, January 23.

Figure 1: The Fuyo Group (Japan)

This figure shows the organizational structure of the Fuyo group, the fourth largest keiretsu in Japan. The principal shareholder is shown in thick-bordered box. Cash-flow rights are denoted with "C" and voting rights are denoted with "V". Pyramidal holdings are denoted with solid lines. The numbers represent the percentage of cash-flow and voting rights. The difference between ownership and control at any given node implies that shares with superior voting rights are used. No cross-holdings are reported on this figure.

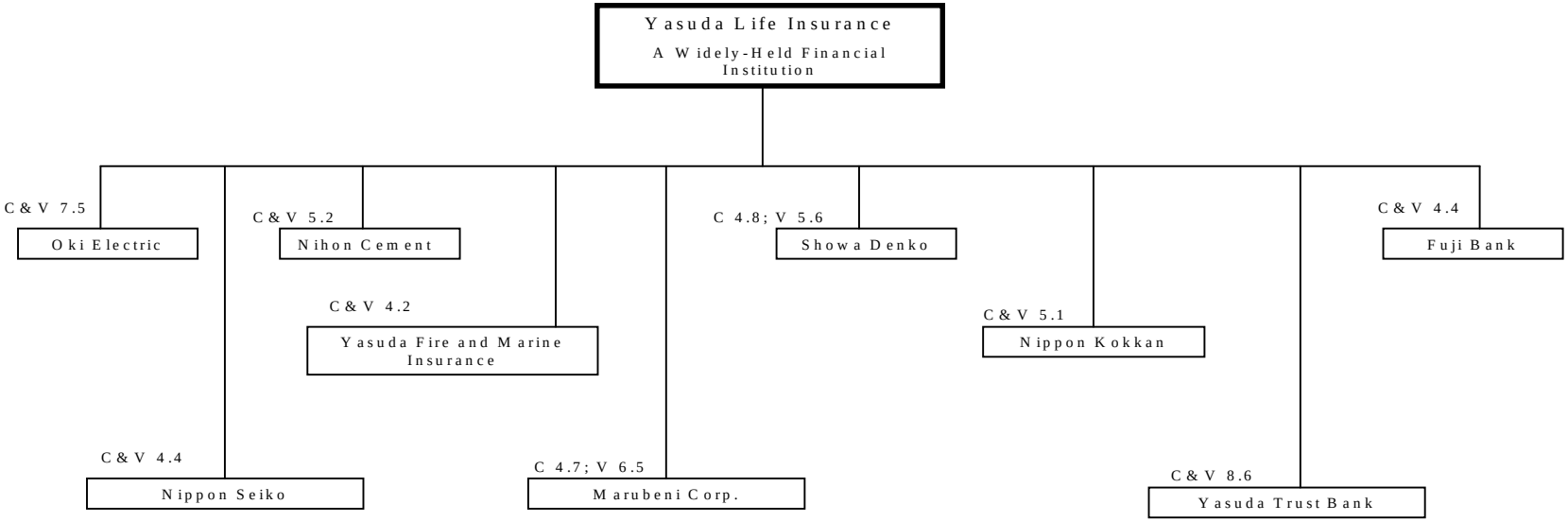
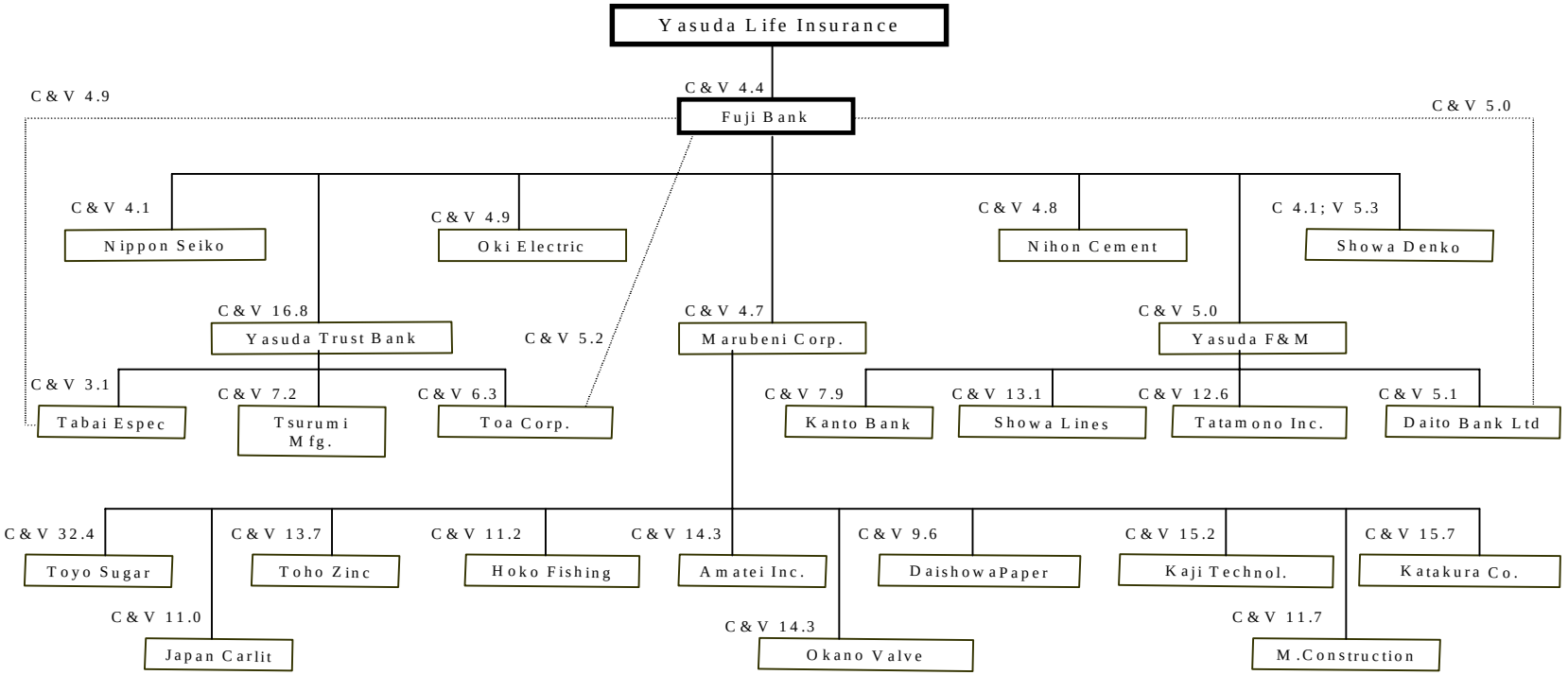


Figure 2: Fuji Bank (Japan)

This figure shows the organizational structure of Fuji Bank, the third largest company in the Fuyo group in terms of market capitalization. The principal shareholder chain is shown in the two thick-bordered boxes. Cash-flow rights are denoted with "C" and voting rights are denoted with "V". The numbers represent the percentage of cash-flow and voting rights. Pyramidal holdings are denoted with solid lines, cross-holdings are denoted with dotted lines.