POLICY RESEARCH WORKING PAPER 2054

Who Controls East Asian Corporations?

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A study of 2,980 corporations in nine East Asian countries finds more than half of those firms being controlled by a single shareholder. Many smaller and older firms are family-controlled. Wealth is very concentrated in some countries, and links between business and government are extensive, so the legal system has probably been influenced by the prevailing ownership structure.

The World Bank
Financial Sector Practice Department
Financial Economics Unit
February 1999

Summary findings

Claessens, Djankov, and Lang identify the ultimate ownership structure for 2,980 corporations in nine East Asian countries. They find that:

- More than half of those firms are controlled by a single shareholder.
- Smaller firms and older firms are more likely to be family-controlled.
- Patterns of controlling ownership stakes differ across countries. The concentration of control generally diminishes with higher economic and institutional development.
- In many countries, control is enhanced through pyramid structures and deviations from one-share-one-vote rules. As a result, voting rights exceed formal cash-flow rights.
- Management is rarely separated from ownership control, and management in two thirds of the firms that are not widely held is related to management of the controlling shareholder.
- In some countries, wealth is very concentrated and links between government and business are extensive, so the legal system has probably been influenced by the prevailing ownership structure.

This paper — a product of the Financial Economics Unit, Financial Sector Practice Department — is part of a larger effort in the department to uncover the causes of the East Asian crisis. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington DC 20433. Please contact Rose Vo, room MC10-627, telephone 202-473-3722, fax 202-522-2031, Internet address hvo1@worldbank.org. Policy Research Working Papers are also posted on the Web at http://www.worldbank.org/html/dec/Publications/Workpapers/home.html. The authors may be contacted at cclaessens @worldbank.org or sdjankov@worldbank.org. February 1999. (40 pages)

Produced by the Policy Research Dissemination Center

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The opinions expressed do not necessarily reflect those of the World Bank. We thank Magdi Amin, Jerry Caprio, Chad Leechor, Vladimir Rudlovcak, and Andrei Shleifer for helpful suggestions, and Ying Lin for excellent research assistance. ^ Corresponding author: tel. (202) 473 4748; EM: sdjankov@worldbank.org

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I. Introduction

Much of the literature on the role and function of the modern firm is based on the assumption of the prevalence of widely dispersed ownership. The dispersion of ownership has resulted in the notion that "the owner of industrial wealth is left a mere symbol of ownership" (Berle and Means, 1932, p.68), as the control over companies is being transferred to professional managers. The literature on corporate governance often starts from this principal-agent relationship and its associated problems. This notion, and the following corporate governance literature, originally derives from the Berle and Means study which concluded that almost half of large American corporations did not have a single owner who controlled more than 20% of the stock. It has also been propagated by Baumol (1959), Jensen and Meckling (1976) and Grossman and Hart (1980), among others.

A more recent line of the empirical literature finds results which are at odds with this traditional assumption. Demsetz (1983), Shleifer and Vishny (1986), Morck, Shleifer, and Vishny (1988) have shown that some concentration of ownership and control exists even among the largest American corporations. La Porta et al. (1998) find even larger concentration of control in a cross-section of developed and developing countries. They also point to a number of country-specific studies that document the existence of large ownership stakes. La Porta, Lopez-de-Silanes, and Shleifer (1998) is the first study that investigates the important issue of ultimate control, i.e., they trace the chain of ownership to find who has the most voting rights. Their findings suggest that ownership is largely concentrated in the hands of families and the state even in some of the most developed countries. The concentration of ownership is enhanced through the use of pyramid structures, deviations from one-share-one-vote rules, cross-holdings, and the appointment of managers and directors who are related to the controlling family.

East Asian corporations have already long been considered to be an exception to the notion of widely-held ownership (Fukuyama, 1996; Rajan and Zingales, 1998), although more recent research (La Porta, Lopez-de-Silanes, and Shleifer, 1998) shows that most developing and some developed countries have similar degree of ownership concentration. The degree to which ownership is concentrated in East Asian countries

has, however, not been documented on a systematic, cross-country basis. This is puzzling, as East Asia provides the largest diversity of economic development of any region in the world – the richest country (Japan) has a per-capita income that is forty times higher than that of the poorest country (Indonesia). The differences in the economic, and the ensuing legal and institutional structures across the East Asian countries provide us with the unique opportunity to study the relation between the level of development of a country and the prevailing ownership patterns.

We use the methodology developed in La Porta, Lopez-de-Silanes, and Shleifer (1998) to investigate ultimate control patterns in 2,980 publicly traded companies in nine East Asian countries (Hong Kong, Indonesia, Japan, Korea (South), Malaysia, the Philippines, Singapore, Taiwan and Thailand). We find large family control in more than half of East Asian corporations. Significant cross-country differences do exist, however. Corporations in Japan, for example, are generally widely-held, while corporations in Indonesia and Thailand are mainly family-controlled. And state-control is significant in Indonesia, Korea, Malaysia, Singapore, and Thailand.

We also find that smaller firms are more likely family-controlled, as are older firms. In many countries, control is enhanced through pyramid structures, and some-times deviations from one-share-one-vote rules, and voting rights consequently exceed formal cash-flow rights. Separation of management from ownership control is rare, and management of two-third of firms which are not widely-held is related to the family of the controlling shareholder. Patterns of controlling ownership stakes differ across countries, and ownership concentration generally diminishes with the level of economic and institutional development. This negative association suggests that companies gravitate towards less concentrated control as their countries become wealthier.

The evidence also suggests that in each country ultimate control of the corporate sector rests in the hands of a small number of families. At the extreme, 16.6% and 17.1% of total market capitalization in Indonesia and the Philippines respectively can be traced to the ultimate control of a single family (the Suhartos and the Ayalas). The largest ten families in Indonesia, the Philippines, and Thailand control half of the corporate sector (in terms of market capitalization), while the largest ten families in Hong Kong and Korea control about a third of the corporate sector. The exception is Japan where family control is insignificant.

Our findings shed some light on the viability of corporate governance structures in East Asia. Insider-control may also have contributed to the weak performance and risky investment of many East Asian corporations prior to the 1997-98 financial crisis. Legal and regulatory developments may have been impeded by the concentration of corporate wealth and the tight links between corporations and government, either directly or indirectly The endogeneity of the legal systems implies that the legal and regulatory reform in most East Asian countries will likely not be independent of changes in ownership structures and wealth concentration.

The paper is organized as follows. Section II reviews the relevant literature on control of East Asian corporations. Section III discusses the construction of the data, develops the methodology of calculating ultimate control, and shows several examples of ultimate control through various pyramid structures. Section IV details the basic results, and investigates the within-country and differences in the concentration of control and the means of enhancing control. Section V studies the cross-country differences in the concentration of control using regression analysis. Section VI revisits the issue of family control and draws some implications for the evolution of legal frameworks in East Asian countries. Section VII concludes.

II. Control Structures in East Asia

While numerous scholars have examined the performance of East Asian corporations over the last four decades,[1] their control structure and relationship to corporate performance remains largely unknown. Several studies on corporate governance in Japan (Aoki, 1990; Nishiyama, 1984; Prowse, 1992; Hoshi, Kashyap, and Scharfstein, 1991; Kaplan, 1994) point to the significance of keiretsu groups. These studies focus, however, on company performance while accounting for the influence of business groups, and do not attempt to trace the ownership of each company to its ultimate owners and identify those owners by type and control stake. The exception is Lim (1981) who studies in detail the control structures of the largest hundred corporations in Malaysia, using the Berle and Means (1932) methodology.

There does exist, however, a number of case studies which describe the control structures of some of the largest business groups in East Asian countries: Taylor (1992)

for the Li Ka-shing group in Hong Kong, Sato (1993) for the Salim group in Indonesia, Okumura (1993) for the Mitsubishi group in Japan, Taniura (1993) for the Lucky Goldstar group in Korea, Koike (1993) for the Ayala group in the Philippines, Numazaki (1993) for the Tainanbang group and Taniura (1989) for the Formosa group in Taiwan, Suehiro (1993) for the Charoen Pokphand group, and Vatikiotis (1997) for the Dhanin Chearavanont group in Thailand.

These studies provide us with some insights into the evolution and peculiarities of corporate control in East Asia. In particular, most of these papers suggest that the dominance of most business groups lies in the privileges that they could solicit from the government: exclusive exporting or importing rights, protection from foreign competition for extensive periods of time, including the granting of monopoly power in the local market, procurement of large government contracts, etc. The case-study literature does not, however, allow for cross-country comparisons; neither does it provide evidence on the existence of state ownership, as the focus is on particular families and their business empires. In some cases, the literature also does not document the precise mechanisms through which the ultimate owners are able to exercise and extend their control.

The recent contributions of La Porta et al. (1998) and La Porta, Lopez-de-Silanes, and Shleifer (1998) go some way towards filling this gap in our knowledge. The former study documents the ownership structure of the ten largest non-financial corporations for a cross-section of 49 countries, including nine East Asian countries. The results show that although ownership concentration of East Asian corporations is high, it is not significantly different from that in other countries at similar levels of economic and institutional development. The latter study investigates in great detail the control structure of the largest twenty publicly traded corporations in 27 rich countries, including four (Hong Kong, Japan, Korea, and Singapore) East Asian countries. It traces control to the ultimate owners of each company and distinguishes among five types of owners. Ownership in the majority of Japanese and Korean corporations is found to be widely dispersed, corporations in Hong Kong are predominantly controlled by families, while about half of the sampled companies in Singapore are controlled by the state.

[1] See Young (1995), Amsden and Singh (1994), and Rodrik (1997) for surveys of the literature.

La Porta, Lopez-de-Silanes, and Shleifer (1998) also examines the means through which control is enhanced. The study shows that owners extend their resources through the use of pyramiding and management appointments, as well as through frequent cross-ownership and the use (less frequently) of shares that have more votes. Another interesting pattern is also documented: control of East Asian corporations can be achieved with significantly less than an absolute majority share of the stock, as the probability of being a single controlling owner through holding only 20% (or more) of the stock is very high–above 80% across the four East Asian countries.

The previous research leaves unanswered several questions. First, are there any differences in the patterns and distribution of control across the East Asian countries, including less developed ones? Second, are there within-country differences in the concentration and distribution of control? Third, do within-country differences depend on size or age of the corporation? Fourth, to what extent is corporate control concentrated in the hands of particular families and is the relation between business and government very strong? Finally, if such differences in ultimate ownership exist across countries, what are their determinants? The answers to some of these questions have strong implications for the level of transparency, openness and market-based transactions in East Asian economies.

III. Construction of the data

The analysis in the following sections is based on newly-assembled data for 2,980 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 our starting point in the data collection, we use the Worldscope database which generally provides the names and holdings of large owners. Worldscope has over 8,000 publicly-traded firms in the nine East Asian countries, but only 2,300 companies provide detailed ownership information. We supplement the data with information from the Asian Company Handbook 1999 (1998), the Japan Company Handbook 1999 (1998), the 1997 Annual Reports of the Hong Kong, Jakarta, Seoul, Kuala Lumpur, and Manila Stock Exchanges, as well as with ownership data from the Korean Fair Trade Commission, the Securities Exchange of Thailand Companies

Handbook (1998), and the Singapore Investment Guide (1998).[2] We exclude 852 companies across the nine countries 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 accounting year. We end up with 2,980 companies for which have complete ownership information and where we can trace the ultimate owners.

The coverage of the sample does not differ significantly across the nine countries, as shown in Table 1. Typically, we cover about three-quarters of total market capitalization even though the share of firms in our sample relative to the total number of listed firms is sometimes (Korea, Malaysia, Taiwan, Thailand) less than 50%. This is because we always cover the largest hundred firms in terms of market capitalization, i.e., the average firm in our sample is larger than the average listed firm on the stock market.

Following on La Porta, Lopez-de-Silanes, and Shleifer (1998), we analyze the control pattern of companies by studying all ultimate shareholders who control over ten percent of the votes. We also use a twenty percent cut-off (originally suggested by Berle and Means), thirty percent cut-off, and forty percent cut-off. The four ownership cut-off levels are used for robustness purposes, but also help us compare the concentration of ownership across countries, size, and age of corporations. Consistent with the previous literature, however, the twenty percent cut-off is used as the benchmark.

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. The exception is the Suharto family in Indonesia, which we discuss in Section VI.

Our definition of ownership relies on control rights, and not on cash flow rights. This distinction can make an enormous difference in the analysis. 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. Since we look at control rights, we would say that the family controls 11% of Firm B—the weakest link in the chain of voting rights. In contrast, we would say that the family owns about 2% of the cash flow rights of Firm B—the product

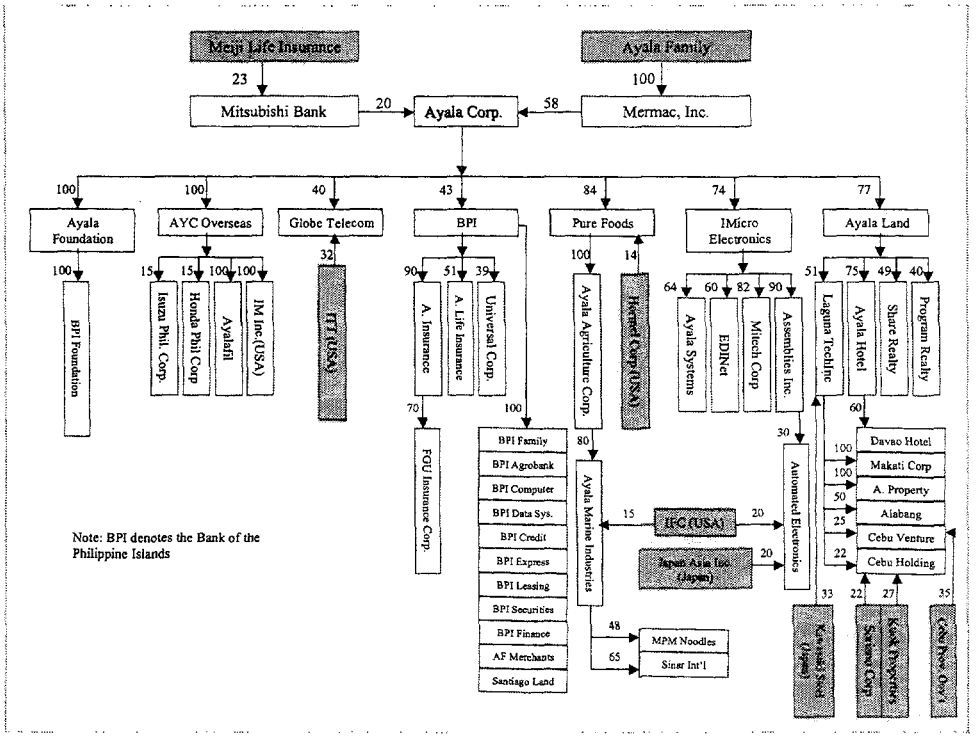
[2] While significant sources of ownership information exist on the internet (see La Porta, Lopez-de-Silanes, and Shleifer, 1998 for details) we used exclusively hard copy reports, which proved more efficient given the number of companies covered in the database.

of the two ownership stakes along the chain. To make the distinction between cash-flow and control rights, we document deviations from one-share-one-vote rules and pyramiding structures for each firm.

We divide corporations into widely-held and corporations with ultimate owners (with ultimate ownership defined at the four cut-off levels described above). A widely-held corporation is a corporation which does not have any owners who have significant control rights. Ultimate owners are further divided into four categories: families (which includes individuals who have large stakes), the state, widely-held financial institutions such as banks and insurance companies, and widely-held corporations. Initially, we also formed a separate group for miscellaneous owners such as employee-stock ownership plans, managers not related to the controlling owners, and cooperatives. Since the number of such entities was very small (at most 1% of total ownership in the case of Japan), we pooled such ownership structures in the widely-held category.

Our definition of ultimate control means a firm can have more than one significant owner. If, for example, Firm C has three owners—a family, the state, and a widely-held corporation—each with 10% of voting rights, we say that this firm is 1/3 controlled by each type of owner at the 10% level. At the 20% level, however, Firm C is widely-held as none of the three owners has 20% of the voting rights. A different picture emerges if the owners do not have equal shares of voting rights. Take, for example, Firm D which has two owners—a family with 30% voting rights and a widely-held financial institution with 10% of the voting rights. At the 10% cut-off the family and the financial institution are assigned ½ each of ultimate control. At the 20% and 30% levels, however, Firm D is defined to be 100% family-controlled. And Firm D is defined as widely-held at the 40% cut-off level. To better understand the variety of ownership structures that determine the ultimate control of companies, we first illustrate several examples from our data. The examples show some of the complications in the construction of ultimate ownership and the wealth of data that are necessary to ensure proper tracing of the ultimate owners in East Asian corporations.

Figure 1: The Ayala Group



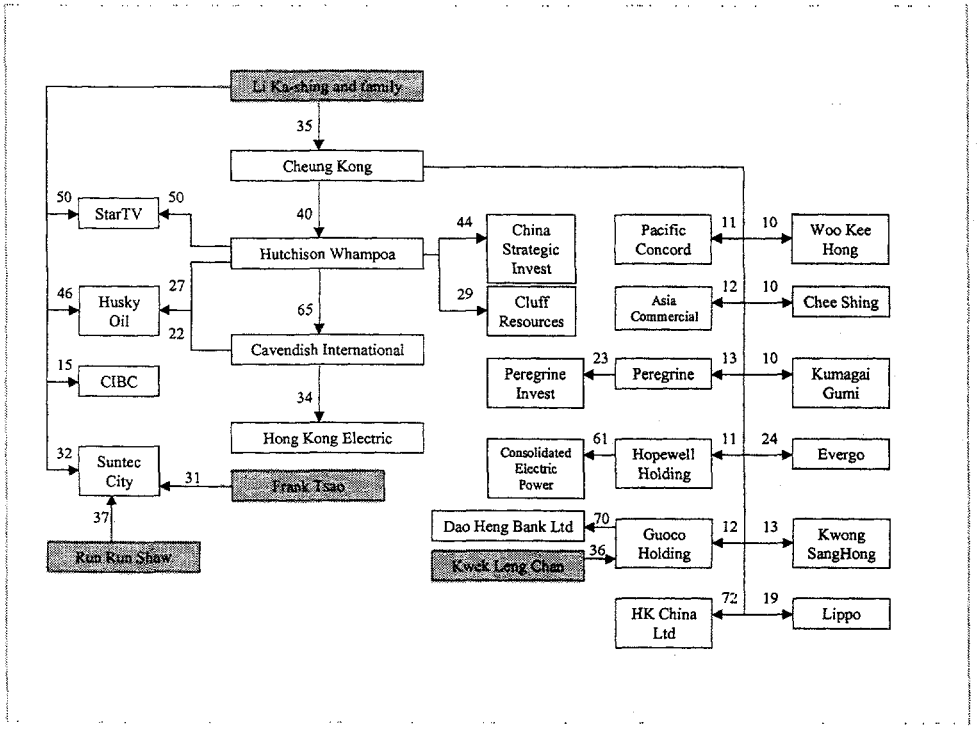
The first set of examples is based on the organizational chart of the Ayala group, the largest conglomerate in the Philippines (Figure 1). We identify 46 companies in our database whose ultimate owner is the Ayala family. First, we look at the ownership of the Ayala Corporation, the second largest publicly-held company on the Manila Stock Exchange in terms of market capitalization. Note that the largest publicly-owned company (Ayala Land) and the fifth-largest publicly-owned company (Bank of the Philippine Islands) also belong to the Ayala conglomerate. The principal owners of the Ayala corporation are the privately held Mermac Inc. (58% of total Ayala Corp. shares), and the Mitsubishi Bank (20%). Each other owner of Ayala Corp. has less than 10% of the stock. We next trace the owners of the owners of Ayala Corp. The Ayala family has 100% of the control of Mermac Inc., while Meiji Life Insurance of Japan has 23% control of Mitsubishi Bank. There are no other significant owners of Mitsubishi Bank. We now can say that the ultimate owners of the Ayala Corp. are the Ayala family (with 58% of control rights) and Meiji Life Insurance with 20% of the control rights.

Next, we study the ultimate control structure of Globe Telecom, another member of the Ayala conglomerate. The two principal owners of Globe Telecom are the ITT corporation (32%) and the Ayala corporation (40%). We have, however, already

established that Ayala Corp. is controlled by the Ayala family and Meiji Life Insurance. We hence conclude that Globe Telecom has three ultimate owners: the Ayala family (40%), the ITT corporation (32%), and Meiji Life Insurance (20%).

Finally, we can investigate ultimate control for the Automated Electronics company (the lower right corner of Figure 1). Two of the ultimate owners are easily identified, the International Finance Corporation (USA) and Japan Asia Inc. (Japan) are both widely-held corporations in their respective countries and control 20% of Automated Electronics each. Another 30% of Automated Electronics is owned by Assemblies Inc., which in turn is owned almost entirely (90%) by IMicro Electronics, which in turn is majority owned (74%) by the Ayala Corp. We thus determine that at the 20% cut-off level, Automated Electronics has four ultimate owners: IFC (USA) with 20%, Japan Asia Inc. (Japan) with 20%, Meiji Life Insurance (Japan) with 20%, and the Ayala Family with 30%.

Figure 2: The Li Ka-shing Group



As a second example, we use the Li Ka-shing conglomerate—the largest business group in Hong Kong (Figure 2). The conglomerate consists of 25 companies, some of which are among the largest in Hong Kong in terms of market capitalization—Hutchison Whampoa is the second largest, Cheung Kong is the sixth largest, Hong Kong Electric is

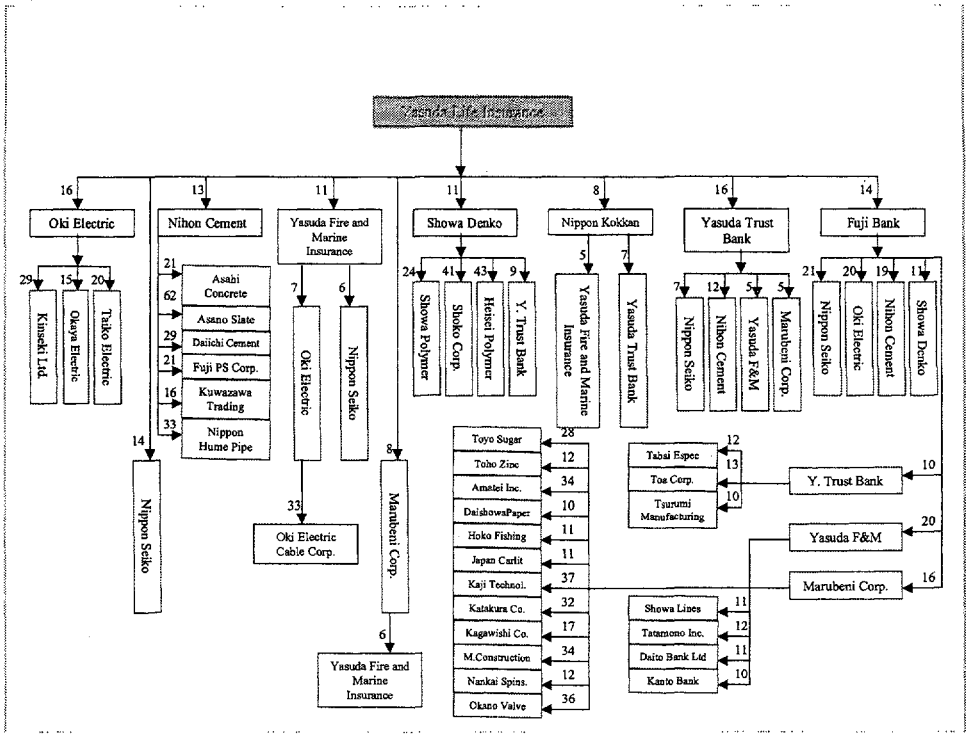
the thirteenth largest, Dai Heng Bank is the twenty-second largest, etc. Using the information on Figure 2, we identify who the ultimate owners of Hong Kong Electric, and Dao Heng Bank are.

Hong Kong Electric has only one ultimate owner—the Li Ka-shing family, which controls 34% of the vote. We establish this following the ownership chain of Li Ka-shing: Cheung Kong – Hutchison Whampoa – Cavendish International – Hong Kong Electric, where the weakest link in the chain is the 34% control of Hong Kong Electric by Cavendish International. The Dao Heng Bank has two ultimate owners, Kwek Leng Chan (a Malaysian businessman) with 36%, and Li Ka-shing with 12%. This is because Kwek Leng Chan owns 36% of Guoco Holdings which in turn owns 70% of Dao Heng Bank; Li Ka-shing owns 35% of Cheung Kong which owns 12% of Guoco Holding which in turn owns 70% of Dao Heng Bank.

Finally, to illustrate some more interesting control chains, we study the ownership structure of the Yasuda (Fuji) group, the fourth largest keiretsu in Japan. The group has a total of 122 companies, but only in forty-one of these did we find a combined control stake (of 10% or more) by other members of the group. (We use the term combined control stake as each firm in the group may be owned by more than one other group member.) The ultimate owner of the group is Yasuda Life Insurance which is a widely-held financial institution and the fourteenth largest publicly-traded company in Japan. The other prominent member of the group is Fuji Bank which is the sixth largest publicly-traded company in Japan. To illustrate the issue of combined control stake, we examine the control structure of Oki Electric and Nihon Cement (Figure 3).

Yasuda Life Insurance owns 16% of Oki Electric's stock directly (the top left part of the figure), but also owns 11% of Yasuda Fire and Marine Company which in turn owns 7% of Oki Electric. Yasuda Life Insurance also owns 14% of Fuji Bank which also holds 20% of Oki Electric. In total, Yasuda Life is the ultimate owner of Oki Electric with 37% (16% directly, 7% through Yasuda Fire and Marine, and 14% through Fuji Bank). The control pattern of Nihon Cement is similar—Yasuda Life owns 13% directly, 12% through Yasuda Trust Bank, and 14% through Fuji Bank, for a total control of 39%.

Figure 3: The Yasuda(Fuji) Group



IV. Ultimate Control of East Asian Corporations

We report simple statistics on the distribution of ultimate control among the five ownership groups identified in the previous section (Table 2). The numbers presented here are unweighted averages—later we also show the distribution of ultimate control weighted by market capitalization in 1996. As a first step, we discuss ultimate control at all four cut-off levels. This allows us to study the concentration of control in the individual firms across the nine East Asian countries and to help understand the peculiarities by which corporate control is derived. In subsequent tables we focus only on the 20% cut-off level, for consistency with Berle and Means (1932) and La Porta, Lopez-de-Silanes, and Shleifer (1998).

There are large differences across countries in the distribution of ultimate control at the 10% level. Japan, for example, has only 13.1% of companies in family hands as compared to over half of companies in most other countries (Indonesia has slightly over 40%). Across the nine East Asian countries, Japan has ownership by financial institutions which are widely-held of 38.5%, while another 41.9% of corporations are widely-held. At the other extreme, Indonesia has more than two-thirds (67.1%) of its

publicly-listed companies in family hands, and only 0.6% are directly widely-held. Singapore is another interesting example with almost a quarter (23.6%) of its companies state-controlled.

At the 20% (benchmark) cut-off level the differences across countries widen. Less than one-tenth of Japanese companies (9.7%) are now controlled by families, while almost four-fifths (79.8%) are widely-held. This drop in family-control arises as many Japanese companies have family ownership between 10% and 20%. At a threshold of 20%, these corporations are defined as widely-held. An even more dramatic change take place in Korea, where family control drops from 67.9% to 48.4%, and Taiwan, where family control decreases from 65.6% to 48.2%. The ultimate control structure in the Indonesian sample goes in the opposite direction—the share of family ownership increases at the expense of state, widely-held financial, and widely-held corporate ownership—as there are more corporations where families are the single largest owner. A similar, but even more pronounced pattern can be observed for Thailand where family control increases from 50.8% to 61.6%, and Malaysia, where family control increases from 57.7% to 67.2%.[3] The most stable control structure between these two cut-off levels is observed in the Philippines and Singapore.

Using the next two cut-off levels (the last two panels in Table 2), one would expect to find increasing share of widely-held companies, and decreasing shares in the other four categories. This pattern is indeed borne out in the data but with some interesting differences across countries. For example, while less than one percent of Japanese firms are family controlled at the 40% level, more than a third of Indonesian (35.4%) and Thai (38.9%) firms still remain in family control. Some of these differences likely arise from variations in company laws across countries and company-specific charters. For example, differences in minimum percentages in shareholdings required for blocking major decisions or the minimum percentages required to entitle a shareholder to call an extraordinary shareholders' meeting are likely important in determining the minimum shareholder stake necessary to exercise effective control.

[3] The increase in family control is due to the definition of ultimate ownership. For example, if a firm has three owners - a family which controls 20%, a bank which controls 10%, and a widely-held corporation

Other rules also affect the size of ownership necessary to be able to exercise effective control. In Korea, for example, restrictions on the voting rights of institutional investors in listed companies and high minimum percentages required to file class-action suits (30% of the vote) imply that relatively low ownership stakes can result in effective control. An additional likely factor is the evolution of capital markets more generally. In Indonesia and Thailand, for example, formal stock markets were only established in 1977 and 1975 respectively, while the stock market in Japan has been in existence since 1878, the Stock Exchange of Hong Kong has been in operation since 1891. This may have influenced the degree to which corporations are widely-held. Furthermore, following World War II, there was a deliberate policy of the Occupational Forces to disperse ownership more widely in Japan (see Aoki, 1990). While important at the 10% and 20% control levels, the role of widely-held financial institutions is greatly diminished at the 30% level for all countries. This is not surprising since in four of the nine countries (Hong Kong, Japan, Korea, Singapore) there are limits to the share of ownership that banks can have in other companies, while such ownership is not permitted in Indonesia altogether (Institute of International Bankers, 1997).

A. Does Size Matter?

We next examine whether ultimate control differs across companies as their size varies. Market capitalization is used as a proxy for size and identify the largest twenty, the median fifty, and the bottom fifty companies in each country. The first group of companies is directly comparable to the La Porta, Lopez-de-Silanes, and Shleifer (1998) sample – these are also the largest twenty companies on their respective stock markets. This is not necessarily the case for the other two groups -- the median fifty, and the bottom fifty companies in our sample are not exactly the median fifty and bottom fifty of all listed corporations in each country. We decided on the 20-50-50 breakdown for three reasons. First, as stated earlier, the first group should replicate the results of previous studies for the countries where we have an overlap—Hong Kong, Japan, Korea, and Singapore—which would make our findings more robust. Second, we wanted the median and small-firms groups to include a larger number of companies as we expected more

which controls 10% - it is only 1/3 controlled by the family at the 10% level, but is fully controlled by the family at the 20% level. The firm is widely-held at higher cut-off levels.

variation in control structures across those types of companies. Third, our sample for the Philippines has only 120 companies, and consequently it was not possible to make any of the groups larger as they currently cover all Philippine firms.

Size appears to matter significantly in explaining the distribution of control across ownership classes. Table 3 provides the comparisons within each country at the 20% cut-off level (Tables A1-A3 also show the descriptive statistics for the other cut-off levels). In most countries, the share of family ownership increases for smaller-size firms. This pattern is especially strong in Japan, where only one of the largest twenty is in family control, while 57% of the smallest 50 companies are controlled by families. The same dramatic increase in family control is observed in the Korean sample where only four of the largest twenty companies are family-controlled, while forty-eight of the smallest fifty companies fall into that category. The magnitude of the increase of family control in smaller-size companies is similar in Taiwan (from 15% to 80%). In Indonesia, Malaysia, the Philippines, Singapore, and Thailand the same pattern is present although it is not as strong, as many large companies are also controlled by families. The exception is Hong Kong, where about three-fourths of the largest twenty companies are under family-control, while less than 60% of the smallest fifty companies are in the same category.

Consistent with the results in Table 2, these statistics also show that the majority of large and medium-size Japanese and Korean corporations are widely-held. All bottom fifty companies in both countries have, however, ultimate owners. In contrast, there is much less variation of control structures across company size in the Philippines, although this result may be driven by the smaller sample in that country. In all other countries, widely-held corporations are the exception, particularly so for small corporations, but also for large and medium-size corporations.

It is useful to compare our results for the largest twenty companies with La Porta, Lopez-de-Silanes, and Shleifer (1998). We focus on Hong Kong, Japan, Korea, and Singapore—the East Asian countries reported in both studies. We obtain identical results for Japan and Singapore, while the differences in Hong Kong and Korea are within five percent of ownership (note also that they report ownership data for either 1995 and 1996, while we use exclusively 1996 data, which could explain some of the differences). This implies that the data on corporate ownership across East Asia are fairly robust.

The differences in control structures across firm size bring about a more complete picture of cross-country differences at the 20% cut-off level once we weigh by market capitalization (Table 4). State ownership becomes much more pronounced, especially in Singapore (40.1%), Malaysia (34.8%), Thailand (24.1%), and Korea (19.9%). The control of widely-held financial institutions and corporations is diminished, so is control by families.

B. Differences in Control due to Age of Companies

Another possible determinant of the control structure of companies is their age. In particular, some previous papers argue that younger companies are more likely to have a few ultimate owners, while older companies are more frequently widely-held. Anecdotally, this argument holds some appeal if one were to look at the US market where the recent deluge of technology-related companies may have increased the number of companies with a few owners with large stakes. Microsoft, for example, has one ultimate owner, Bill Gates, with 24% of the stock; so does Yahoo! where the Japanese entrepreneur Masayoshi Son has 29% of the voting rights. The evidence is less convincing in the international context. It is difficult to explain, for example, why Belgium and Sweden rank high in family control in La Porta, Lopez-de-Silanes, and Shleifer (1998); companies in these two countries are surely older than companies in (say) Australia, yet Australian companies are predominantly widely-held.

To investigate the relation between age and corporate control structures, we run simple correlations between the number of years the corporation has been in operation (the year of incorporation is obtained from Worldscope; 1996 is considered the end year) and the control stake (voting rights) of the largest owner. The results are presented in Table 5. Interestingly, only in Japan are older firms more widely-held. In the other eight countries, the correlation coefficients are always positive (older firms have more concentrated corporate control), and these coefficients are statistically significant for the Indonesian, Malaysian, and Taiwanese samples. Note that the average age of listed Japanese corporates is about twice as high (57.2 years) as that of the other samples.

C. Means of Enhancing Corporate Control

In this section we discuss some other mechanisms which enhance corporate control even in the presence of small control stakes. The first question relates to the differences between cash-flow rights and voting power. In particular, can we find evidence of use of multiple classes of voting rights, and pyramid structures? We also investigate the role of cross-holdings, although our data here are less complete, as it becomes impossible to follow all the cross-holding patterns in such a large sample. For example, we identified 273 cross-holdings among the forty-two companies of the Yasuda (Fuji) group alone.

We begin with a description of the magnitude of deviations from one-share-one-vote through shares with different voting rights (Table 6). Such deviations tend to be very small in the East Asian countries, it takes on average 19.23% of all shares to get 20% of voting rights (Table 6, Cap=20%V). This is consistent with the findings in La Porta, Lopez-de-Silanes, and Shleifer (1998) that companies around the world do not tend to use much the opportunities of issuing shares with superior voting rights. Note that we may actually exaggerate the importance of deviations from the one-share-one-vote rule as we do not consider company-specific voting caps, as we generally do not have access to company charters.

Pyramid structures are defined in Berle and Means (1932) as "owning a majority of the stock of one corporation which in turn holds a majority of the stock of another – a process that can be repeated a number of times." In our sample, for more than two-fifths of companies ultimate control at the 20% level involves the use of a pyramid structure, with the number being the largest in Indonesia (66.9%) and the smallest in Thailand (12.7%). Singaporean companies also show a high incidence of pyramiding, while only a quarter of non-widely-held companies in Hong Kong are controlled through pyramid structures.

Next we study cross-holdings patterns where a company down the chain of control has some shares in another company in her chain of control. We do not find significant evidence of cross-holdings, with the exception of Malaysia and Singapore where 14.9% and 15.7% of companies have some cross-ownership. Interestingly, Korean companies are above the average for the nine East Asian countries on that indicator even though cross-holdings are limited by law (note that our indicator on cross-holdings does not weigh by size of cross-holdings). This point was also made by La Porta, Lopez-de-

Silanes, and Shleifer (1998) – paradoxically, most of the countries which have limits on cross-holdings (Belgium, France, Germany, Italy, Korea, Spain) appear to have higher incidence of cross-ownership. Thai companies display the least evidence of cross-holdings, a meager 0.8%.

We also identify two additional means through which ultimate control is strengthened. The first one is to calculate the share of firms where there is a single controlling owner. A second controlling owner is defined as somebody who has at least 10% of the voting rights. The idea is that if such a party (or parties) exists, it may be more difficult for the first owner to force her will on the Board of Directors. The data show that in more than half of the sample companies which are not widely-held at the 20% level the ultimate owners are alone. This share is the highest in Japan (87.2%) and the lowest in Thailand (18.9%). The results for Thailand, combined with the low degree of use of pyramids and cross-holdings, reflects the importance in Thailand of informal alliances among the small number of families controlling most of Thai companies. Often, several families will jointly own a large stake in a corporation, with one family in the alliance taking the role of primary controlling shareholder (see further Suehiro, 1993 for a narrative of inter-family business cooperation in Thailand).

Finally, we study the separation of control and management by investigating whether a member of the controlling family, or an employee of the controlling widely-held financial institution or corporation is the CEO, Chairman, Honorary Chairman, or Vice-Chairman of the company. It is generally difficult to find whether a manager is an employee of a controlling financial institution or corporation, although such information does exist in the Stock Exchange Investment guides of several East Asian companies. It is much easier to find family membership, even if the particular manager does not have the same last name. This is because in most countries we have been able to obtain the family trees for the fifteen largest family groups.

As an example, we study the family in control of the Tainanbang group in Taiwan. The family consists of nineteen members, each of which has one or more management or board of directors positions in corporations controlled. There are five different family names - simply following the last name of the founder (Wu Xiuqi) would have resulted in eight family members only. The Tainanbang group is in the hands of Wu Zunxian (brother of the founder), Wu Junjie (brother), Wu Junsheng (sister), Wu Wuxiang

(brother), Wu Sanilan (cousin), Wu Zhongzheng (nephew), and Gao Qingyuan (partner). Wu Sanilan's son (Wu Junmin) is on the Board of Directors of three companies controlled by the Tainanbang. Gao Lai Huan (Gao Qingyuan's wife) and Gao Xiuling (his daughter) are also involved in the management of firms within the group. Wu Wuxiang's husband, Hou Yuli, her son Hou Yongdu, her sons-in-law Huang Jindai and Yan Xiufeng, her daugther-in-law Hou Chen, and her grandchildren (the founder's grandnephews) Hou Boyi, Hou Boyu, and Hou Boming are acting as either managers or sit on the Board of Directors of one or more Tainanbang companies.

The correspondence between control and management is particularly striking in our data (Table 6, last column). On average, two-thirds of companies which are not widely-held have the controlling owner appoint a member of top management. Four-fifths or more of companies in Indonesia, Korea, Malaysia, and Taiwan have managers who belong to the controlling group. The correspondence between control and management is less frequent in Japan and the Philippines, where less than half of the managers are family-related to the controlling owner. In the former case, this finding is consistent with previous sociological studies, which generally conclude that "The Japanese had a tradition of professional management well before the Meiji Restoration – before, that is, the country had even embarked on the industrialization process" (Fukuyama, 1996, p.329). The latter is in part explained by the tendency of Philippine corporations to have interlocking directorates and management boards, whereby members of one family would serve on the Board of Directors or Management Board of companies controlled by other influential families (Tan, 1993).

The numbers on managers affiliated to the controlling families are somewhat higher as the ones reported in La Porta, Lopez-de-Silanes, and Shleifer (1998). This is probably because in many cases we have succeeded in tracing family members which do not have the same last name, and also because smaller companies are more likely to have an owner who is also the CEO or the Board Chairman (while their sample consists of large companies only).

Overall, the results suggest some remarkable similarities across the nine East Asian countries in terms of the forms and means through which corporations are ultimately controlled. While there are some differences, related in part to the development of stock markets, legal and regulatory rules, most countries exhibit a similar pattern of family

control through pyramid structures and management which is family-related to the ultimate owners.

V. Cross-Country Differences in the Concentration of Control

As stated earlier, the differences in control patterns across corporations may be related to firm-specific (size, age, sector, protection of minority shareholders) and country-specific (legal rules and the general level of development) factors. La Porta, Lopez-de-Silanes, and Shleifer (1998) show a higher incidence of widely-held corporations in countries with good legal protection of minority shareholders. They also point out, however, the possibility of endogeneity of legal rules, a question we try to address in the next section. Here, we regress the control structures on some simple proxies for firm- and country-specific factors. Specifically, we perform the following regression:

$$CONTROL_i = a + b_1*\log(Size_i) + b_2*\log(AGE_i) + b_3*DEVIATE_i + b_4*MANAGER_i + b_5*PYRAMID_i + b_6*\log(GNP) + \text{Country Dummies} + \text{Sector Dummies} + u_I ,$$

where CONTROL is the control stake of the largest ultimate owner of firm i, Size is proxied by the log-level of the share of market capitalization of firm i in total market capitalization within each country, AGE is proxied by the log-level of the number of years since establishment of the firm, DEVIATE captures the firm-specific deviation from one-share-one-vote and is a discrete variable that takes on the value of 1 if there are deviations between cash flow and control rights and 0 otherwise.[4] We also include dummies for companies where managers belong to the controlling families (MANAGER), and where control is enhanced by pyramiding (PYRAMID). The overall level of development of the country is proxied by the log-level of the per-capita GNP of that country in 1996. Country dummies are used to proxy for the efficiency of judicial system, rule of law, and corruption to the extent that they are not accounted for by the log(GNP) variable.[5]

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[4] Differerent from La Porta, Lopez-de-Silanes and Shleifer (1998), whom use a country-specific dummy, we use a firm-specific dummy variable for deviations from one-share-one-vote. We also used a firm-specific dummy variable to control for any requirement for mandatory dividends. This variable is, however, highly correlated with the one-share-one-vote dummy and was consequently not used in the regression.

[5] Sector dummies (at the 1-digit SIC level) were used as corporations in different sectors can be expected to have different governance structures. In the end, the sector dummies were not jointly statistically significant and did not display any discernible pattern and were hence dropped in the final regression.

We find that the age of a company, deviations between cash-flow and control rights, and the presence of managers from the controlling family are all positively related to the concentration of control (Table 7, regression 1). Concentration of control is negatively correlated with company size and the degree to which owners engage in pyramiding. These relationships are statistically very robust. The country dummies are also very significant and account for a large portion of the explanatory power of the regressions. The dummy for Japan is negative (Korea is the numeraire), the dummy for Taiwan has the smallest positive coefficient and is marginally significant, while the dummy for Thailand is the most statistically significant and has the largest coefficient. The significance of the country dummies is not due to heteroskedasticity problems—both regressions have White-corrected errors. The dummies' coefficients exhibit a pattern which is negatively related to the level of income—with Japan the smallest (negative) and Indonesia and Thailand the highest. This suggests that the country dummies pick up some of the cross-country differences in the level of economic and institutional development.

We also run the regression by including a proxy for each country's overall level of economic development and dropping the country dummies (regression 2). The concentration of control is negatively related to per-capita GNP (with a t-statistic of -16). The results are consistent with the findings in La Porta et al. (1998). High ultimate ownership is more likely observed in countries where minority protection is weak and the concentration of control diminishes with an increase in the level of economic development.

VI. The Aggregate Effects of Extensive Family Control

So far we have investigated the incidence of ultimate control at the level of the individual firm. Perhaps a more meaningful unit of analysis, particularly if we are concerned with issues of market entry, access to financing, and government policy, is pattern of control of the corporate sector by family group(s). To capture this, we analyze first the number of firms in the sample controlled on average by a single family. The results are reported in Table 8 (first column). Indonesia has the largest number of companies controlled by a

single family, more than four on average. Japan has the least number, each family controls approximately one company.

These numbers already suggest that the ultimate control of the corporate sector rests in the hands of a small number of families in most countries. This can be further demonstrated by the number of firms and end-1996 market value of total assets controlled by the largest family group in each country (not reported).[6] The largest conglomerate in Indonesia, for example, is the Salim group which is mainly controlled by Soedono Salim, but also in part controlled by the Suharto family. Since the Suharto family has a number of other holdings, we choose it as the largest stock-holder in Indonesia. Of all the firms in our sample, the members of the Suharto family collectively controls assets worth US$24 billion. The largest family holder in terms of assets across all nine countries is the Chung Ju-Yung family, owners of Hyundai and its related companies, with holdings worth US$48 billion.

Another measure of wealth concentration is the share of total market capitalization held by the top 1, top 5 etc. families.[7] At the extreme, 16.6% and 17.1% of total market capitalization in Indonesia and the Philippines respectively (Table 8, third column) can be traced to the ultimate control of a single family (the Suhartos and the Ayalas). The top ten families in Indonesia and the Philippines control more than half of the corporate sector (57.7% and 52.5% respectively) in terms of market capitalization (Table 8, fifth column). The concentration of control is also high in Thailand (46.2%) and Hong Kong (32.1%). A quarter of the corporate sector in Korea, Malaysia, and Singapore is controlled by the largest ten families. In contrast, family control in Japan is insignificant—the largest ten families own only 2.4% of market capitalization.

These results suggest that a relatively small number of families effectively control most East Asian economies. The question arise whether these families have a strong effect on the economic policy of governments. One direct mechanism for such an effect

[6] This does not necessarily coincide with the largest business groups in the country. This is particularly the case for Japan, where the largest keiretsu – the Mitsubishi group – controls over 400 affiliated firms. But the Mitsubishi group does not have a single controlling family.

[7] To avoid discrepancies in the cross-country comparison due to different sample coverage, we scaled down the control holdings of each family group by assuming that the firms missing from our sample are not controlled by any of the largest fifteen families. For example, the largest five families in the Philippines control 52.2% of the market capitalization in our sample. Since the sample firms represent 82% of total market capitalization in the Philippines (Table 1), we reach an adjusted figure of 42.8% (52.2%*82%) for the control holdings of the largest five families (Table 8, third column).

is the extension of preferential treatment to family members of senior government members. A case in point is the business empire of the Suharto family in Indonesia, which controls 417 listed and unlisted companies that we could identify in our sample through a number of business groups led by children, other relatives, and business partners, many of whom, besides Suharto himself, also serve in some government functions (Figure 4).[8]

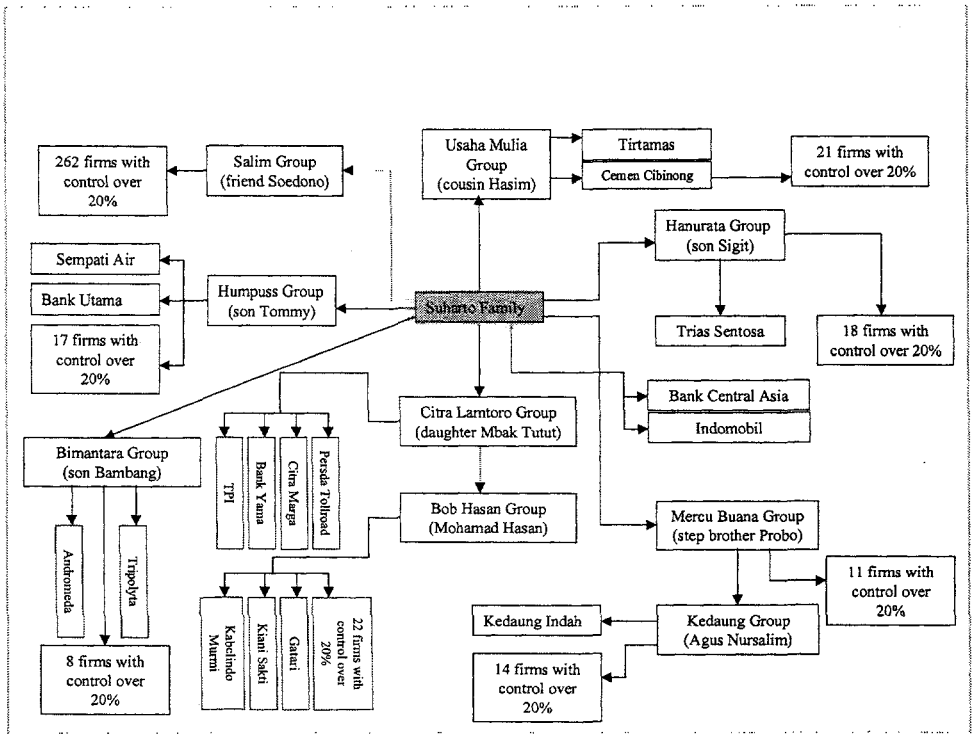
Another mechanism of symbiosis between government and business is through indirect control of companies by the ruling political parties. An example is the main political party Kuomintang in Taiwan which has a controlling stake in 155 companies, some of which overseas. Kuomintang's corporate holdings range from scores of small textile and pharmaceutical businesses to highly protected oligopolies in the financial industry, which have exclusive rights over a wide array of investment transactions. Many companies under Kuomintang's control are also exempted from disclosing any financial or ownership information since they operate in industries related to national defense, making it difficult to estimate the true magnitude of the party's corporate portfolio (Baum, 1994). The main political parties in Malaysia – Umno and the Malaysian Indian Congress – also have substantial business holdings. The most direct mechanism is, of course, through the large state-controlled companies prevalent in Singapore and Malaysia.

The concentration of wealth, and the important direct and indirect channels through which the government may play an active role in business activity and businessmen may influence politicians, raises the possibility that the legal systems in some East Asian countries may be endogenous to the forms and concentration of control over the corporate sector. If the role of a limited number of families the corporate sector is large and the government is heavily involved in and influenced by business, the legal system is less likely to evolve in a manner to protect minority shareholders, and more generally to

[8] Other examples abound. Imelda Marcos, the widow of the former Philippine president Ferdinand Marcos, has detailed the extent of her family's grip on the economy as follows: "We practically own everything in the Philippines from electricity, telecommunications, airlines, banking, beer and tobacco, newspaper publishing, television stations, shipping, oil and mining, hotels and beach resorts, down to coconut milling, small farms, real estate and insurance" (Financial Times, 1998), which include holdings in more than 100 listed companies. Since many of these holdings were acquired under the names of Marcos's partners, we were not able to track them in our sample.

promote transparent and market-based activities. While this argument has been frequently advanced by scholars in the wake of the East Asia financial crisis, little evidence has been collected to support it.

Figure 4: The Suharto Group



We can compare the concentration of corporate control in the hands of families to three indicators on the judicial and legal development developed in La Porta and Lopez-de-Silanes (1998). The indexes we use are for the efficiency of the judicial system, the rule of law and the degree of corruption and run from 1 to 10, with 10 being the best, e.g., most efficient, strongest rule of law and least corrupt. The correlations between the share of the largest fifteen families in total market capitalization, on the one hand, and the efficiency of the judicial system, the rule of law, and corruption, on the other, are very strong (Table 9).[9] This suggests that the concentration of corporate control is a major determinant in the evolution of the legal system, i.e., relationships exist between ownership structure of the whole corporate sector and the level of institutional

[9] The Pearson correlation coefficients are –0.807, -0.834, and –0.841 respectively.

development, and as documented by La Porta et al. (1998), a relationship between the judicial and legal development and the ownership structures of individual corporations.

VII. Conclusions

In most East Asian countries, wealth is very concentrated in the hands of few families and links between government and business are extensive. Legal and regulatory developments may have been impeded by the concentration of corporate wealth and the extensive links between corporations and government, either directly or indirectly. Consequently, relationships between patterns of ownership and legal and other institutional variables are not necessary casual, as has been suggested, at least for some other countries. The possible endogeneity of the legal systems implies that future legal and regulatory reform in some East Asian countries may not be independent of changes in ownership structures and concentration of wealth.

Insider-control may also have contributed to the weak performance and risky investment of many East Asian corporations prior to the crisis. Our results allow for a re-examination of the relationships between ownership structure and corporate performance, since previous studies only looked at the immediate owners and not the ultimate, controlling owners. The finding that many firms in East Asia belong to the same group and/or are controlled by a single family also suggests that further research may be warranted on the performance of firms belonging to the same group or controlled by the same family and on the corporate governance mechanisms used within such groups. These relationships between performance and ownership structures can be researched using data from before the crisis. One can also investigate whether the performance of firms during the 1997 financial crisis depended on their ownership structures and possible affiliations to a group. The large shocks many firms experienced as a result of the East Asia financial crisis provide an unique opportunity to understand how resources are allocated within groups, especially as access to external financial markets was sharply diminished. This line of research may in turn offer several important insights as to how corporate governance and corporate restructuring in East Asia can be improved. Finally, the large role played by a few families in East Asian corporate sectors suggest that an investigation of the evolution of legal and judicial systems in relation to wealth concentration may be particularly insightful for some of these countries.

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Table 1: Coverage of the Sample

2,980 newly-assembled data for publicly-traded corporations (including both financial institutions and non-financial institutions) are collected from Worldscope, the Asian Company Handbook 1999 (1998), the Japan Company Handbook 1999 (1998), the 1997 Annual Reports of the Hong Kong, Jakarta, Seoul, Kuala Lumpur, and Manila Stock Exchanges, as well as with ownership data from the Korean Fair Trade Commission, the Securities Exchange of Thailand Companies Handbook (1998), the Singapore Investment Guide (1998) and IFR Handbook of World Stock and Commodity Exchanges (1997). In all cases, we collect the ownership structure as of December 1996 or the end of the 1996 accounting year.

Country	Stock Exchange	Est.	Number of Companies	Market Cap. (US$ million)	No. of Companies in Our Sample	Share of Total Market Cap.
Hong Kong	Stock Exchange of Hong Kong	1891	583	449,258	330	78
Indonesia	Jakarta Stock Exchange	1977	253	91,016	178	89
Japan	Tokyo Stock Exchange	1878	1749*	3,106,108	1240	93
Korea	Korea Stock Exchange	1956	760	138,817	345	76
Malaysia	Kuala Lumpur Stock Exchange	1964	621	307,179	238	74
The Philippines	Philippine Stock Exchange	1965	216	80,649	120	82
Singapore	Stock Exchange of Singapore	1910	266*	153,234	221	96
Taiwan	Taipei Stock Exchange	1962	382	273,608	141	66
Thailand	Stock Exchange of Thailand	1975	454	99,828	167	64

*Main Board only.

Table 2: Control of Publicly Traded Companies in East Asia

(unweighted)

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 1999 (1998), the Japan Company Handbook 1999 (1998), the 1997 Annual Reports of the Hong Kong, Jakarta, Seoul, Kuala Lumpur, and Manila Stock Exchanges, as well as with ownership data from the Korean Fair Trade Commission, the Securities Exchange of Thailand Companies Handbook (1998), the Singapore Investment Guide (1998) and IFR Handbook of World Stock and Commodity Exchanges (1997). In all cases, we collect the ownership structure as of December 1996 or the end of the 1996 accounting year.

Country	Number of Corporations	Widely Held	Family	State	Widely Held Financial	Widely Held Corporation
			10% cut-off			
Hong Kong	330	0.6	64.5	3.7	7.1	24.1
Indonesia	178	0.6	67.1	10.2	3.8	18.3
Japan	1240	41.9	13.1	1.1	38.5	5.3
Korea	345	14.3	67.9	5.1	3.5	9.2
Malaysia	238	1.0	57.7	17.8	12.5	11.0
Philippines	120	1.7	41.3	3.6	16.8	36.7
Singapore	221	1.4	51.9	23.6	11.5	11.5
Taiwan	141	2.8	65.6	3.0	10.4	18.1
Thailand	167	2.2	50.8	7.5	17.9	21.7
			20% cut-off			
Hong Kong	330	7.0	66.7	1.4	5.2	19.8
Indonesia	178	5.1	71.5	8.2	2.0	13.2
Japan	1240	79.8	9.7	0.8	6.5	3.2
Korea	345	43.2	48.4	1.6	0.7	6.1
Malaysia	238	10.3	67.2	13.4	2.3	6.7
Philippines	120	19.2	44.6	2.1	7.5	26.7
Singapore	221	5.4	55.4	23.5	4.1	11.5
Taiwan	141	26.2	48.2	2.8	5.3	17.4
Thailand	167	6.6	61.6	8.0	8.6	15.3
			30% cut-off			
Hong Kong	330	50.3	34.4	0.9	2.1	12.3
Indonesia	178	24.7	58.7	6.7	0.0	9.8
Japan	1240	94.8	2.8	0.4	0.4	1.6
Korea	345	76.2	20.1	1.2	0.0	2.5
Malaysia	238	41.2	45.6	8.2	0.0	5.0
Philippines	120	58.3	22.1	2.1	5.0	12.5
Singapore	221	45.2	32.6	11.3	2.3	8.6
Taiwan	141	73.0	18.4	2.8	1.4	4.3
Thailand	167	24.6	54.8	7.5	3.6	9.6
			40% cut-off			
Hong Kong	330	74.8	17.6	0.3	0.9	6.4
Indonesia	178	51.7	35.4	5.6	0.0	7.3
Japan	1240	97.6	0.9	0.3	0.0	1.2
Korea	345	94.8	3.5	0.9	0.0	0.9
Malaysia	238	77.3	14.7	4.2	0.0	3.8
Philippines	120	83.3	8.3	1.3	1.7	5.4
Singapore	221	74.7	14.9	3.6	1.4	5.4
Taiwan	141	91.5	5.0	2.8	0.0	0.7
Thailand	167	48.5	38.9	5.4	1.2	6.0

Table 3: Control of the Publicly Traded Companies in East Asia, By Size (unweighted)

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 1999 (1998), the Japan Company Handbook 1999 (1998), the 1997 Annual Reports of the Hong Kong, Jakarta, Seoul, Kuala Lumpur, and Manila Stock Exchanges, as well as with ownership data from the Korean Fair Trade Commission, the Securities Exchange of Thailand Companies Handbook (1998), the Singapore Investment Guide (1998) and IFR Handbook of World Stock and Commodity Exchanges (1997). In all cases, we collect the ownership structure as of December 1996 or the end of the 1996 accounting year. Size is classified as the largest 20 firms, the median 50 firms, and the bottom 50 firms.

Country	Category	Widely Held	Family	State	Widely Held Financial	Widely Held Corporation
Hong Kong	All firms	7.0	66.7	1.4	5.2	19.8
	Largest 20	5.0	72.5	7.5	10.0	5.0
	Middle 50	6.0	66.0	2.0	4.0	22.0
	Smallest 50	14.0	57.0	3.0	1.0	25.0
Indonesia	All firms	5.1	71.5	8.2	2.0	13.2
	Largest 20	15.0	60.0	20.0	0.0	5.0
	Middle 50	6.0	62.7	3.3	3.0	25.0
	Smallest 50	0.0	93.0	0.0	1.0	6.0
Japan	All firms	79.8	9.7	0.8	6.5	3.2
	Largest 20	90.0	5.0	5.0	0.0	0.0
	Middle 50	96.0	2.0	0.0	0.0	2.0
	Smallest 50	0.0	57.0	0.0	30.0	13.0
Korea	All firms	43.2	48.4	1.6	0.7	6.1
	Largest 20	65.0	20.0	10.0	0.0	5.0
	Middle 50	66.0	11.0	5.0	0.0	18.0
	Smallest 50	0.0	97.0	0.0	1.0	2.0
Malaysia	All firms	10.3	67.2	13.4	2.3	6.7
	Largest 20	30.0	35.0	30.0	0.0	5.0
	Middle 50	12.0	69.0	10.0	4.0	5.0
	Smallest 50	0.0	84.0	5.0	2.0	9.0
Philippines	All firms	19.2	44.6	2.1	7.5	26.7
	Largest 20	40.0	40.0	7.5	7.5	5.0
	Middle 50	16.0	42.0	0.0	9.0	33.0
	Smallest 50	16.0	45.0	2.0	6.0	31.0
Singapore	All firms	5.4	55.4	23.5	4.1	11.5
	Largest 20	20.0	32.5	42.5	0.0	5.0
	Middle 50	10.0	46.0	35.0	4.0	5.0
	Smallest 50	2.0	67.0	4.0	5.0	22.0
Taiwan	All firms	26.2	48.2	2.8	5.3	17.4
	Largest 20	45.0	15.0	15.0	5.0	20.0
	Middle 50	36.0	38.0	0.0	6.0	20.0
	Smallest 50	6.0	80.0	0.0	4.0	10.0
Thailand	All firms	6.6	61.6	8.0	8.6	15.3
	Largest 20	10.0	57.5	20.0	7.5	5.0
	Middle 50	6.0	47.0	10.0	15.7	21.3
	Smallest 50	0.0	76.7	2.7	5.0	15.7

Table 4: Control of Publicly Traded Companies in East Asia
(weighted by market capitalization)

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 1999 (1998), the Japan Company Handbook 1999 (1998), the 1997 Annual Reports of the Hong Kong, Jakarta, Seoul, Kuala Lumpur, and Manila Stock Exchanges, as well as with ownership data from the Korean Fair Trade Commission, the Securities Exchange of Thailand Companies Handbook (1998), the Singapore Investment Guide (1998) and IFR Handbook of World Stock and Commodity Exchanges (1997). In all cases, we collect the ownership structure as of December 1996 or the end of the 1996 accounting year.

Country	Number of Corporations	Widely Held	Family	State	Widely Held Financial	Widely Held Corporation
Hong Kong	330	7.0	71.5	4.8	5.9	10.8
Indonesia	178	6.6	67.3	15.2	2.5	8.4
Japan	1240	85.5	4.1	7.3	1.5	1.6
Korea	345	51.1	24.6	19.9	0.2	4.3
Malaysia	238	16.2	42.6	34.8	1.1	5.3
Philippines	120	28.5	46.4	3.2	8.4	13.7
Singapore	221	7.6	44.8	40.1	2.7	4.8
Taiwan	141	28.0	45.5	3.3	5.4	17.8
Thailand	167	8.2	51.9	24.1	6.3	9.5

Table 5: Correlation between Age and the Size of Control Stakes in East Asian Corporations

(full samples)

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 1999 (1998), the Japan Company Handbook 1999 (1998), the 1997 Annual Reports of the Hong Kong, Jakarta, Seoul, Kuala Lumpur, and Manila Stock Exchanges, as well as with ownership data from the Korean Fair Trade Commission, the Securities Exchange of Thailand Companies Handbook (1998), the Singapore Investment Guide (1998) and IFR Handbook of World Stock and Commodity Exchanges (1997). In all cases, we collect the ownership structure as of December 1996 or the end of the 1996 accounting year.

Country	Correlation (Age; Voting Rights of Largest Owner)	Average Age (Years)	Average Control (%)
Hong Kong	0.212	28.8	28.1
Indonesia	0.241*	24.1	34.4
Japan	-0.204	57.2	8.9
Korea	0.139	31.2	18.2
Malaysia	0.308*	28.8	28.1
The Philippines	0.072	28.1	24.4
Singapore	0.089	26.8	27.3
Taiwan	0.278*	26.3	19.6
Thailand	0.103	21.2	35.6

* significant at the 5% level.

Table 6: Means of Enhancing Control in East Asian Corporations
(full samples, percentage of total)

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 1999 (1998), the Japan Company Handbook 1999 (1998), the 1997 Annual Reports of the Hong Kong, Jakarta, Seoul, Kuala Lumpur, and Manila Stock Exchanges, as well as with ownership data from the Korean Fair Trade Commission, the Securities Exchange of Thailand Companies Handbook (1998), the Singapore Investment Guide (1998) and IFR Handbook of World Stock and Commodity Exchanges (1997). In all cases, we collect the ownership structure as of December 1996 or the end of the 1996 accounting year. Cap=20%V is the average minimum percent of the book value of common equity required to control 20% of the vote; Pyramids with Ultimate owners (when companies are not widely-held) equals 1 if the controlling owner exercises control through at least one publicly-traded company, 0 otherwise; Cross-Holdings equals 1 if the company has a controlling shareholder and owns any amount of shares in its controlling shareholder or in another company in her chain of control, 0 otherwise; Controlling Owner Alone equals 1 if there does not exist a second owner who holds at least 10% of the stock, 0 otherwise; Management equals 1 if the CEO, Board Chairman or Vice-Chairman are from the controlling family, 0 otherwise.

Country	Cap=20%V	Pyramids with Ultimate Owners	Cross Holdings	Controlling Owner Alone	Management
Hong Kong	18.84	25.1	9.3	68.1	53.4
Indonesia	19.17	66.9	1.3	50.9	84.6
Japan	19.89	36.4	11.6	87.2	37.2
Korea	19.64	42.6	9.4	76.7	80.7
Malaysia	18.11	39.3	14.9	37.4	85.0
The Philippines	18.71	40.2	7.1	35.1	42.3
Singapore	19.91	55.0	15.7	37.0	69.9
Taiwan	19.61	49.0	8.6	43.3	79.8
Thailand	19.22	12.7	0.8	18.9	67.5
East Asia Nine	19.23	40.8	8.7	50.6	66.8

Table 7: Determinants of the Concentration of Control
(Coefficient, t-Statistics)

Newly-assembled data for 2,980 publicly-traded corporations (including both financial institutions and non-financial institutions) in Hong Kong, Indonesia, Japan, Korea, Malaysia, the Philippines, Singapore, Taiwan, and Thailand are collected from Worldscope, the Asian Company Handbook 1999 (1998), the Japan Company Handbook 1999 (1998), the 1997 Annual Reports of the Hong Kong, Jakarta, Seoul, Kuala Lumpur, and Manila Stock Exchanges, as well as with ownership data from the Korean Fair Trade Commission, the Securities Exchange of Thailand Companies Handbook (1998), the Singapore Investment Guide (1998) and IFR Handbook of World Stock and Commodity Exchanges (1997). In all cases, we collect the ownership structure as of December 1996 or the end of the 1996 accounting year. The dependent variable is the ownership of the largest owner.

Explanatory Variable	(1)	(2)
Size	-1.87 (-3.03)	-0.81 (-1.55)
Age	4.57 (25.04)	1.32 (3.03)
Manager from Controlling Family	3.53 (8.02)	5.39 (11.88)
Pyramid	-1.22 (-2.96)	-2.86 (-6.84)
Deviation from One-Share-One-Vote	7.83 (6.02)	13.29 (9.53)
Per-capita GNP	---	-4.09 (-15.99)
Hong Kong	12.33 (15.31)	---
Indonesia	18.08 (14.21)	---
Japan	-8.12 (-10.58)	---
Malaysia	11.21 (8.34)	---
Philippines	9.97 (6.36)	---
Singapore	10.67 (13.45)	---
Taiwan	3.40 (2.17)	---
Thailand	19.63 (17.84)	---
Constant	33.38 (12.44)	61.46 (29.04)
Number of Observations	2,980	2,980
Adjusted R^2	0.46	0.32

Table 8: How Concentrated is Family Control?

Newly-assembled data for 2,980 publicly-traded corporations (including both financial institutions and non-financial institutions) in Hong Kong, Indonesia, Japan, Korea, Malaysia, the Philippines, Singapore, Taiwan, and Thailand are collected from Worldscope, the Asian Company Handbook 1999 (1998), the Japan Company Handbook 1999 (1998), the 1997 Annual Reports of the Hong Kong, Jakarta, Seoul, Kuala Lumpur, and Manila Stock Exchanges, as well as with ownership data from the Korean Fair Trade Commission, the Securities Exchange of Thailand Companies Handbook (1998), the Singapore Investment Guide (1998) and IFR Handbook of World Stock and Commodity Exchanges (1997). In all cases, we collect the ownership structure as of December 1996 or the end of the 1996 accounting year. The Average Number of Firms per Family refers only to firms in the sample. To avoid discrepancies in the cross-country comparison due to different sample coverage, we have scaled down the control holdings of each family group in the last four columns by assuming that the firms missing from our sample (see Table 1) are not controlled by any of the largest fifteen families.

Country	Average Number of Firms per Family	% of total market capitalization that families control			
		Top 1 Family	Top 5 Families	Top 10 Families	Top 15 Families
Hong Kong	2.36	6.5	26.2	32.1	34.4
Indonesia	4.09	16.6	40.7	57.7	61.7
Japan	1.04	0.5	1.8	2.4	2.8
Korea	2.07	11.4	29.7	26.8	38.4
Malaysia	1.97	7.4	17.3	24.8	28.3
The Philippines	2.68	17.1	42.8	52.5	55.1
Singapore	1.26	6.4	19.5	26.6	29.9
Taiwan	1.17	4.0	14.5	18.4	20.1
Thailand	1.68	9.4	32.2	46.2	53.3

Table 9: Are Judicial Systems Endogenous?

Newly-assembled data for 2,980 publicly-traded corporations (including both financial institutions and non-financial institutions) in Hong Kong, Indonesia, Japan, Korea, Malaysia, the Philippines, Singapore, Taiwan, and Thailand are collected from Worldscope, the Asian Company Handbook 1999 (1998), the Japan Company Handbook 1999 (1998), the 1997 Annual Reports of the Hong Kong, Jakarta, Seoul, Kuala Lumpur, and Manila Stock Exchanges, as well as with ownership data from the Korean Fair Trade Commission, the Securities Exchange of Thailand Companies Handbook (1998), the Singapore Investment Guide (1998) and IFR Handbook of World Stock and Commodity Exchanges (1997). In all cases, we collect the ownership structure as of December 1996 or the end of the 1996 accounting year. The Concentration of Family Control (Top 15) comes from the last column of Table 8. The Efficiency of Judicial System is taken from Table 4 in La Porta and Lopez-de-Silanes (1998) and assesses the "efficiency and integrity of the legal environment as it affects business, particularly foreign firms." The Rule of Law and Corruption indices also come from Table 4 in La Porta and Lopez-de-Silanes (1998).

Country	Concentration of Family Control (Top 15)	Efficiency of Judicial System	Rule of Law	Corruption
Hong Kong	34.4	10.00	8.22	8.52
Indonesia	61.7	2.50	3.98	2.15
Japan	2.8	10.00	8.98	8.52
Korea	38.4	6.00	5.35	5.30
Malaysia	28.3	9.00	6.78	7.38
The Philippines	55.1	4.75	2.73	2.92
Singapore	29.9	10.00	8.57	8.22
Taiwan	20.1	6.75	8.52	6.85
Thailand	53.5	3.25	6.25	5.18

Table A1: Control of the Largest Twenty Publicly Traded Companies

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 1999 (1998), the Japan Company Handbook 1999 (1998), the 1997 Annual Reports of the Hong Kong, Jakarta, Seoul, Kuala Lumpur, and Manila Stock Exchanges, as well as with ownership data from the Korean Fair Trade Commission, the Securities Exchange of Thailand Companies Handbook (1998), the Singapore Investment Guide (1998) and IFR Handbook of World Stock and Commodity Exchanges (1997). In all cases, we collect the ownership structure as of December 1996 or the end of the 1996 accounting year. Unweighted.

Country	Widely Held	Family	State	Widely Held Financial	Widely Held Corporation
			10% cut-off		
Hong Kong	0.0	67.5	12.5	12.5	7.5
Indonesia	5.0	60.0	22.5	0.0	12.5
Japan	65.0	5.0	5.0	25.0	0.0
Korea	25.0	47.5	17.5	0.0	10.0
Malaysia	5.0	34.6	36.3	15.4	8.8
Philippines	5.0	48.3	12.5	18.3	15.8
Singapore	10.0	38.3	45.8	3.3	2.5
Taiwan	15.0	37.9	16.3	14.6	16.3
Thailand	5.0	49.2	14.2	20.0	11.7
			20% cut-off		
Hong Kong	5.0	72.5	7.5	10.0	5.0
Indonesia	15.0	60.0	20.0	0.0	5.0
Japan	90.0	5.0	5.0	0.0	0.0
Korea	65.0	20.0	10.0	0.0	5.0
Malaysia	30.0	35.0	30.0	0.0	5.0
Philippines	40.0	40.0	7.5	7.5	5.0
Singapore	20.0	32.5	42.5	0.0	5.0
Taiwan	45.0	15.0	15.0	5.0	20.0
Thailand	10.0	57.5	20.0	7.5	5.0
			30% cut-off		
Hong Kong	85.0	5.0	5.0	5.0	0.0
Indonesia	45.0	35.0	15.0	0.0	5.0
Japan	95.0	0.0	5.0	0.0	0.0
Korea	80.0	10.0	10.0	0.0	0.0
Malaysia	50.0	20.0	25.0	0.0	5.0
Philippines	60.0	20.0	7.5	10.0	2.5
Singapore	90.0	0.0	10.0	0.0	0.0
Taiwan	75.0	5.0	15.0	0.0	5.0
Thailand	20.0	65.0	15.0	0.0	0.0
			40% cut-off		
Hong Kong	100.0	0.0	0.0	0.0	0.0
Indonesia	60.0	25.0	15.0	0.0	0.0
Japan	95.0	0.0	5.0	0.0	0.0
Korea	90.0	5.0	5.0	0.0	0.0
Malaysia	65.0	10.0	20.0	0.0	5.0
Philippines	85.0	5.0	7.5	0.0	2.5
Singapore	100.0	0.0	0.0	0.0	0.0
Taiwan	85.0	0.0	15.0	0.0	0.0
Thailand	30.0	60.0	10.0	0.0	0.0

Table A2: Control of the Fifty Median Publicly Traded Companies

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 1999 (1998), the Japan Company Handbook 1999 (1998), the 1997 Annual Reports of the Hong Kong, Jakarta, Seoul, Kuala Lumpur, and Manila Stock Exchanges, as well as with ownership data from the Korean Fair Trade Commission, the Securities Exchange of Thailand Companies Handbook (1998), the Singapore Investment Guide (1998) and IFR Handbook of World Stock and Commodity Exchanges (1997). In all cases, we collect the ownership structure as of December 1996 or the end of the 1996 accounting year. Unweighted.

Country	Widely Held	Family	State	Widely Held Financial	Widely Held Corporation
			10% cut-off		
Hong Kong	0.0	63.0	3.2	7.0	26.8
Indonesia	0.0	59.3	4.7	7.0	29.0
Japan	1.0	9.0	0.0	79.7	10.3
Korea	0.0	48.7	16.0	10.0	25.3
Malaysia	0.0	59.0	13.5	13.7	13.8
Philippines	0.0	39.7	2.0	18.3	40.0
Singapore	2.0	47.7	32.0	11.7	6.7
Taiwan	2.0	64.7	0.0	11.7	21.7
Thailand	2.0	44.3	10.3	16.7	26.7
			20% cut-off		
Hong Kong	6.0	66.0	2.0	4.0	22.0
Indonesia	6.0	62.7	3.3	3.0	25.0
Japan	96.0	2.0	0.0	0.0	2.0
Korea	66.0	11.0	5.0	0.0	18.0
Malaysia	12.0	69.0	10.0	4.0	5.0
Philippines	16.0	42.0	0.0	9.0	33.0
Singapore	10.0	46.0	35.0	4.0	5.0
Taiwan	36.0	38.0	0.0	6.0	20.0
Thailand	6.0	47.0	10.0	15.7	21.3
			30% cut-off		
Hong Kong	40.0	46.0	2.0	0.0	12.0
Indonesia	26.0	54.0	2.0	0.0	18.0
Japan	100.0	0.0	0.0	0.0	0.0
Korea	86.0	0.0	4.0	0.0	10.0
Malaysia	92.0	6.0	2.0	0.0	0.0
Philippines	60.0	20.0	0.0	6.0	14.0
Singapore	74.0	8.0	18.0	0.0	0.0
Taiwan	92.0	4.0	0.0	0.0	4.0
Thailand	44.0	25.0	12.0	10.0	9.0
			40% cut-off		
Hong Kong	68.0	22.0	0.0	0.0	10.0
Indonesia	56.0	30.0	0.0	0.0	14.0
Japan	100.0	0.0	0.0	0.0	0.0
Korea	92.0	0.0	4.0	0.0	4.0
Malaysia	98.0	2.0	0.0	0.0	0.0
Philippines	86.0	6.0	0.0	4.0	4.0
Singapore	88.0	6.0	6.0	0.0	0.0
Taiwan	98.0	2.0	0.0	0.0	0.0
Thailand	78.0	8.0	10.0	2.0	2.0

Table A3: Control of the Smallest Fifty Publicly Traded Companies

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 1999 (1998), the Japan Company Handbook 1999 (1998), the 1997 Annual Reports of the Hong Kong, Jakarta, Seoul, Kuala Lumpur, and Manila Stock Exchanges, as well as with ownership data from the Korean Fair Trade Commission, the Securities Exchange of Thailand Companies Handbook (1998), the Singapore Investment Guide (1998) and IFR Handbook of World Stock and Commodity Exchanges (1997). In all cases, we collect the ownership structure as of December 1996 or the end of the 1996 accounting year. Unweighted.

Country	Widely Held	Family	State	Widely Held Financial	Widely Held Corporation
			10% cut-off		
Hong Kong	4.0	60.7	3.0	1.0	31.3
Indonesia	0.0	88.0	0.0	2.0	10.0
Japan	1.0	52.0	0.0	30.0	17.0
Korea	1.0	91.3	0.0	3.0	4.7
Malaysia	1.0	63.2	9.3	15.7	10.8
Philippines	2.0	34.0	1.0	13.7	49.3
Singapore	0.0	58.3	9.3	11.7	20.7
Taiwan	0.0	82.7	0.0	7.0	10.3
Thailand	1.3	55.0	2.3	19.7	21.7
			20% cut-off		
Hong Kong	14.0	57.0	3.0	1.0	25.0
Indonesia	0.0	93.0	0.0	1.0	6.0
Japan	0.0	57.0	0.0	30.0	13.0
Korea	0.0	97.0	0.0	1.0	2.0
Malaysia	0.0	84.0	5.0	2.0	9.0
Philippines	16.0	45.0	2.0	6.0	31.0
Singapore	2.0	67.0	4.0	5.0	22.0
Taiwan	6.0	80.0	0.0	4.0	10.0
Thailand	0.0	76.7	2.7	5.0	15.7
			30% cut-off		
Hong Kong	54.0	26.0	2.0	0.0	18.0
Indonesia	14.0	83.0	0.0	0.0	3.0
Japan	62.0	30.0	0.0	0.0	8.0
Korea	18.0	80.0	0.0	0.0	2.0
Malaysia	6.0	80.0	2.0	2.0	10.0
Philippines	64.0	13.0	2.0	4.0	17.0
Singapore	8.0	62.0	4.0	4.0	22.0
Taiwan	54.0	40.0	0.0	2.0	4.0
Thailand	0.0	81.0	2.0	2.0	15.0
			40% cut-off		
Hong Kong	76.0	16.0	2.0	0.0	6.0
Indonesia	48.0	52.0	0.0	0.0	0.0
Japan	98.0	0.0	0.0	0.0	2.0
Korea	82.0	18.0	0.0	0.0	0.0
Malaysia	50.0	42.0	2.0	0.0	6.0
Philippines	82.0	8.0	0.0	0.0	10.0
Singapore	24.0	48.0	4.0	4.0	20.0
Taiwan	88.0	12.0	0.0	0.0	0.0
Thailand	10.0	72.0	2.0	2.0	14.0

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