Center for Economic Institutions

Working Paper Series

CEI Working Paper Series, No. 2003-1

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Did Families Lose or Gain Control after the East Asian Financial Crisis?

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January 2003

Forthcoming in *Designing Financial Systems in East Asia and Japan: Toward a Twenty-First Century Paradigm* edited by Joseph Fan, Masaharu Hanazaki, and Juro Teranishi, Routledge.

Abstract

This paper investigates the ownership and control of Thai public firms in the period after the East Asian financial crisis, compared to those in the pre-crisis period. Using the comprehensive unique database of ownership and board structures, we find that the ownership and control appear to be more concentrated in the hands of controlling shareholders subsequent to the crisis. Interestingly, even though families remain the most prevalent owners of Thai firms and are still actively involved in the management after the financial crisis, their role as the controlling shareholder becomes less significant. In addition, our results show that direct shareholdings are most frequently used as a means of control in both periods. Pyramids and cross-shareholdings, however, are employed to the lesser extent following the crisis.

Key Words: Ownership; Controlling Shareholder; Corporate Governance; East Asian Financial Crisis; Thailand
JEL Classification: G32

We acknowledge the financial support from the Thai Research Fund (TRF). Polsiri acknowledges the financial support from the Center for Economic Institutions, Institute of Economics Research, Hitotsubashi University. We are grateful to Joseph Fan, Masaharu Hanazaki, Yishay Yafeh, the participants of the 2002 APFA/PACAP/FMA Finance Conference in Tokyo for comments and discussion, and to Prapaporn Nilsuwankosit for outstanding arm's-length research assistance.

1. Introduction

Previous studies document that changes in ownership and board structures of firms in the US occur in response to changes in the business or industry conditions of the firms due to changes in regulations, input costs, technology and financial system (Mitchell and Mulherin, 1996; Holderness et al., 1999; Kole and Lehn, 1999). In addition, ownership and board changes might be attributable to past stock-price returns, top executives changes, and corporate control threats (Denis and Sarin, 1999). However, little evidence on ownership structure changes following a macroeconomic shock or crisis has been documented.

Although recently studies focusing on how firms respond to an economy-wide shock have been increasing, to our knowledge there is no study that directly investigates an impact of a macroeconomic shock on ownership and board structures. For example, Baek et al. (2002) focus only on the effects of the East Asian financial crisis on restructuring activities using data on Korean firms. They assume that ownership structure is predetermined, and document the negative relation between ownership by owner-managers and the likelihood that firms undertake downsizing activities. Unlike Baek et al. (2002), we investigate changes in ownership and board structures as a part of the restructuring process in response to the macroeconomic shock. The country of focus is Thailand, which was affected tremendously by the 1997 East Asian crisis. Hence it provides a spectacular opportunity to explore this issue. Similar to most research on the ownership structure literature, our analysis is best viewed as an exploratory data study.

Our study focuses on Thai non-financial publicly traded firms in 2000 compared to those of 1996, which is one year before the crisis. This comparison allows us to address three principal issues. First, how corporate ownership structure changes as the economy, the financial system and the regulation on foreign ownership have changed. Second, whether there are any variations in mechanisms used by the owners to control the firms before and after the crisis. Finally, to what extent the degree of controlling shareholders' participation in management changes, subsequent to the economic shock.

Surprisingly, we find that the ownership and control appear to be more concentrated in the hands of controlling shareholders, subsequent to the crisis. Interestingly, even though families are still the most prevalent owners of Thai firms, their role is reduced. Similar to the pre-crisis period, the controlling shareholders are typically involved in management in the majority of firms. Especially in family-owned firms, the participation of controlling families' members in the board is even greater after the crisis. In addition, our results show that direct shareholdings are the most common means of control used in more than two-third of the firms in both periods. Rather than direct ownership, pyramidal structures and cross-shareholdings are employed. These control-enhancing mechanisms, nevertheless, are used less often, reflected in the lower degree of separation between ownership and control following the macroeconomic shock.

This study is organized as followed. In Section 2, we describe data sources, data collection, and data definition. In Section 3, we examine who control Thai firms in the period after the crisis. Section 4 provides analyses of the deviation between ownership and control of the firms' ultimate owners and the means they use to enhance their voting rights from associated cash-flow rights. We also investigate the separation between ownership and management in this Section. In Section 5, we explore the concentration of ownership and control in firms that have no controlling shareholder. Finally, our conclusion is drawn in Section 6.

2. Data Construction

2.1 Data Sources

Our sample includes all non-financial companies listed in the Stock Exchange of Thailand. The data of 1996 and 2000 are used to represent the pre- and post-crisis periods, respectively. The choices of these two years are arbitrary, however. We do not investigate banks and other financial companies because unlike non-financial companies, there are ownership restrictions imposed on banks and financial institutions by the Bank of Thailand[1].

Our study is based on comprehensive data sources of ownership. Previous research on ownership structure of firms in East Asian countries (for example, Claessens et al., 2000; Lemmon and Lins, forthcoming; Lins, forthcoming; Mitton, 2002) typically employs data sources that include shareholders with shareholdings of at least 5 percent, while our database includes more detailed information. More precisely, our database provides the information on shareholders who hold at least 0.5 percent of a firm's shares. This ownership data as well as the board data are obtained from the I-SIMS database produced by the Stock Exchange of Thailand. Additional information on the ownership and board data, such as lists of a company's affiliates and shareholdings by these companies as well as family relationships among board members, is manually collected from company files (FM 56-1) available at the library and the website of the Stock Exchange of Thailand. Besides Johnstone et al. (2001), we also search various books written in Thai to trace family relationships beyond their surnames (Pornkulwat, 1996; Sappaiboon, 2000a, 2000b, and 2001).

We use the BOL database provided by BusinessOnLine Ltd. to trace the ownership of private companies that appear as corporate shareholders of our sample firms. The BOL has a license from the Ministry of Commerce to reproduce the company information from the Ministry's database. Basically, this database includes major information of all registered companies in Thailand that is reported annually to the Ministry.

[1] No shareholder is allowed to own more than 5 and 10 percent of the shares of commercial banks and finance companies, respectively.

With all the above data sources, we are able to trace the ultimate owners of all privately owned companies that are the (domestic corporate) shareholders of firms in our focus. As will be shown later, often we underestimate equity stakes held by the firm's shareholders without searching for the owners of these private companies.

2.2 Definition of Controlling Shareholder

A controlling shareholder or an ultimate owner can be defined as a shareholder who *directly* or *indirectly* owns more than 25 percent of a company's votes (Stock Exchange of Thailand, 1998). We are aware that cut-off levels of 10 percent and 20 percent are more commonly used in the literature (La Porta et al., 1999; Claessens et al., 2000; Faccio and Lang, 2002). However, due to differences in law and legislation across countries, a 25 percent cut-off is more appropriate as far as Thailand is concerned[2]. The shareholder with more than 25 percent stakes can control a firm because no other single shareholder would own enough voting rights to have the absolute power over the firm to challenge him. Under the Public Limited Companies Act B.E. 2535, to have absolute power over a firm, a shareholder needs to own at least 75 percent of a firm's votes.

Ironically, a shareholder with 25 percent of votes has sufficient legal rights to perform the following actions under the Thai corporate law. First, he has the right to ask the court to withdraw a resolution that fails to comply with or that is in contravention of the articles of the company's association or the provisions of the Public Limited Companies Act. Second, he has the right to demand an inspection of the company's business operation and financial condition. Third, he has the right to call an extraordinary general meeting at any time. Fourth, he has the right to request the court to dissolve the company if he expects that further business operation will bring in only losses and that the company has no chance of recovery (Sersansie and Nimmansomboon, 1996).

[2] See also Wiwattanakantang (2000 and 2001) for the argument of this issue.

2.3 Definition of Ownership and Control

Unlike many countries in Europe, multiple voting shares do not exist in Thailand. Thai law prohibits the issuance of such shares. Therefore, we will focus only on the three control mechanisms, namely, direct, pyramidal, and cross-shareholdings, here. "Direct ownership" means that a shareholder owns shares under his own name or via a private company owned by him. "Indirect ownership" is when a company is owned via other public firms or a chain of public firms. This chain of controls is in the form of pyramidal structures and/or cross-shareholdings, which can include many layers of firms. In this case, we will outline the controlling shareholder(s) of these firms. Following the literature, we also calculate both cash-flow and voting rights by following the standard approach used in Claessens et al. (2000) and Faccio and Lang (2002). Regarding the definitions of pyramidal structures and cross-shareholdings, we use the conventional method of La Porta et al. (1999). Previous studies suggest that while direct shareholdings do not create discrepancies between voting and cash-flow rights, pyramids and cross-shareholdings do (Grossman and Hart, 1988; Harris and Raviv, 1988; Wolfenzon, 1998; Bebchuk et al., 1999).

We classify "an ultimate owner" or "a controlling shareholder" into eight types as follows:

1. "A group of related families", which is defined as an individual, a family, and members of a group of families that are relatives, including in-law families. Regarding family relationship, we treat members of a family as a single shareholder assuming that they vote as a group. Members of a family include those who have the same family name, those who are close relatives, and those who are relatives of in-laws of a family.

2. "The state", which is the Thai government.

3. "Domestic financial institution", which is defined as a financial (and securities)company as well as a mutual fund that is owned by domestic investors.

4. “Foreign investor”, which is defined as a foreign individual, family, and corporations. Note here that similar to previous studies in the literature, we do not search for the ultimate owner of the parent companies of foreign corporate shareholders. So it might be the case that firms that have foreign corporations as their controlling shareholders, and hence defined as foreign-controlled firms, are actually widely held if their parent companies in the home based countries are dispersedly owned.

5. “Foreign institutional investor”, which is defined as a financial (and securities), insurance company as well as a mutual fund that is owned by foreign investors.

6. “A group of unrelated families”, which is defined as members of a group of families that are not related but jointly own a private company, which in turn ultimately controls the sample firms.

7. “Multiple controlling shareholders”, which is defined as a firm in which the number of controlling shareholders is more than one.

8. “No controlling shareholder”, which is defined as a firm that does not have an ultimate controlling shareholder.

2.4 Comparability with Claessens et al. (2000)

There are a number of issues that might affect the comparability of our results and those of Claessens et al. (2000) who investigate the ownership of East Asian firms using 1996 data. First, the sample firms are different. Their sample includes financial companies and banks, while ours does not. Furthermore, while our sample covers all non-financial listed firms, their sample covers only 36.78 percent of all listed companies. Second, their definition of controlling shareholder differs from ours. Specifically, they use the 20 percent cut-off in defining the controlling shareholder, while we employ the 25 percent cut-off. Third, their ownership data might not be as comprehensive as ours in that their database provides only shareholders with stakes of at least 5 percent, while our database includes more detailed information of shareholders who hold at least 0.5 percent. Also, they only trace the ownership within publicly traded firms. Consequently, their ownership calculation could give some biased results. For example, firms that were classified as widely held in their sample might not truly represent firms with no controlling shareholder. Perhaps these firms are classified into such category simply because their ownership could not be traced.

3. Results: Who Control Thai Firms after the East Asian financial Crisis

We begin our exploration by investigating who ultimately own and control Thai listed companies based on 2000 data, and then compare the results with the pre-crisis structure. Table 1 shows that the existence of controlling shareholders has been typical for Thai firms during the pre- and post-crisis periods. More than three quarters of our sample firms have at least one controlling shareholder. Specifically, in 2000, about 79.19 percent of the firms have controlling shareholders. Among these firms, 67.05 percent (209 firms) have a single controlling block, while 14.29 percent (46 firms) are ultimately owned by a group of controlling shareholders. When compared to the pre-crisis data, the ownership appears to be slightly more concentrated. In 1996, controlling shareholders exist in 78.69 percent of the sample firms. The proportion of firms in which the controlling shareholder exists is not statistically different between both periods.

TABLE 1 NEAR HERE

We compare our results with those of Claessens et al. (2000) while keeping the facts stated in Section 2.4 in mind. To be comparable, we extend the calculation of the ownership and control by using the 20 percent cut-off. Our findings show that around 10.25 and 11.65 percent of our sample firms have no controlling shareholder in 2000 and 1996, respectively. Claessens et al. (2000), however, document that in 1996 only 6.6 percent of Thai firms in their sample are widely held[3]. The comparison, using either 25 percent or 20 percent cut-off level, gives the consistent results that the ownership happens to be marginally more concentrated in the post-crisis period.

Changes in the ownership structure should be seen more clearly when investigating the percentage of firms associated with a particular type of controlling shareholders. After the crisis, firms that are controlled by a group of related families still appear to be the most prevalent in Thai stock market. However, the percentage of such firms has declined. That is, a group of related families controls about 45.65 percent of the firms in the sample in 2000, while such a group controls about 51.4 percent of the firms in 1996. The fraction of related family-controlled firms in the post-crisis period is, nevertheless, not significantly different at the conventional levels from that in the pre-crisis period.

Controlling ownership by families seems to be substituted by other types of shareholders. Particularly, we find that foreign ownership increases from 13.07 percent in 1996 to 15.22 percent in 2000. Moreover, the fraction of firms owned by domestic financial institutions rises from 0.57 percent to 1.24 percent. In addition, the fraction of firms owned by a group of controlling shareholders increases from 11.65 percent to 14.29 percent. The Thai government remains as the controlling shareholder of nine firms after the crisis, while it controls eight firms before the crisis. These firms account for 2.48 percent of the 2000 sample. Among firms with a group of controlling shareholders, the proportion of firms that are controlled by a group of unrelated families slightly declines from 5.97 percent in 1996 to 5.59 percent in 2000, while the proportion of firms with multiple controlling shareholders increases from 5.68 percent to 8.70 percent .

Although none of the changes in the fraction of firms with each type of controlling shareholders between both periods is statistically significant, the decline in the fraction of related

[3]A plausible reason why Claessens et al. (2000) find smaller number of widely held firms than our calculation might be

family-controlled firms and the rise in the fraction of firms with multiple controlling shareholders have the highest t-statistics of 1.43 and 1.57, respectively.

4. Ownership and Control of Controlling Shareholders

4.1 Control Mechanisms

We investigate how the controlling shareholder owns and controls the firms in this section. Table 2 shows that direct ownership is used most often in Thai public firms during the pre- and post-crisis years. In 2000, in approximately 78.04 percent of the firms, their controlling shareholders use simply direct shareholdings, compared to 76.53 percent in 1996. In other words, controlling shareholders in more than two-third of the firms own the shares using their own names and/or through their private companies. Based on our comprehensive database, we find that, on average, 35.8 and 35.5 percent of the direct shareholdings are done via companies that are privately owned in 1996 and 2000, respectively. Hence, without tracing the ownership of these private companies, often we underestimate the actual cash-flow and control rights held by the controlling shareholders.

TABLE 2 NEAR HERE

Interestingly, in almost all the firms, controlling shareholders do not use either pyramids or cross-shareholdings alone to control the firms. In 2000, there are only two instances of using simply pyramids, while there is no single case where the controlling shareholders employ cross-shareholdings alone. The combinations of pyramids with direct shareholdings and pyramids with direct and cross shareholdings are more common. Specifically, in about 14.9 percent of the firms,

that their samples exclude firms that are difficult to trace the ultimate owners (see Section 2.4).

direct shareholdings are used with pyramids, and in about 6.27 percent of the firms, direct shareholdings are used with pyramids and cross-shareholdings.

The combination of direct shareholdings with pyramids and cross-shareholdings is used most often in firms controlled by a group of related families. Statistically, out of 38 firms that use direct shareholdings-cum-pyramids, 21 firms belong to a group of related families, seven firms are multiple controlling shareholders-owned, six firms are foreign-owned, three firms belong to a group of unrelated families, and the rest one firm is state-owned. A similar picture emerges regarding the use of direct shareholdings-cum-pyramids-cum-cross-shareholdings.

Interestingly, compared to the pre-crisis period, the exercise of pyramidal structures slightly decreases. Overall, our results show that pyramids are used in 21.96 and 23.47 percent of the firms with controlling shareholders in 2000 and 1996, respectively.

Compared to other countries in East Asia (Claessens et al., 2000) and more developed economies (La Porta et al., 1999; Faccio and Lang, 2002)[4], pyramids are less commonly used in Thailand. Pyramids are employed in about 38.17 percent of companies in East Asia (Claessens et al., 2000) and 26 percent of firms in the 27 wealthiest countries (La Porta et al., 1999). Thai firms appear to use pyramids slightly more frequently when compared to firms in Western European countries, however. Faccio and Lang (2002) reveal that pyramids are found in approximately 19.13 percent of the European firms in their sample.

Consistent with findings from other countries, cross-shareholdings happen to be used much less often by the controlling shareholders of Thai firms. In 2000, only about 6.27 percent of the firms with controlling shareholders (16 firms) employ cross-shareholdings, being most prevalent in firms

[4] La Porta et al. (1999) use the data of 20 largest firms in the 27 wealthiest countries in 1995. Faccio and Lang (2002) use the data of 5,232 publicly traded companies in 13 Western European countries for the period between 1996 and 1999. Both studies include shareholder with at least 5 percent of the firms' shares and employ the 20 percent cut-off to define the controlling shareholders.

controlled by a group of related families. Specifically, out of these 16 firms, 12 companies[5] are owned by a group of related families, accounting for 8.39 percent of all related family-controlled firms. Cross-shareholdings also appear in firms that are controlled by domestic financial institutions (two firms) and a group of unrelated families (two firms).

The proportion of firms using cross-shareholding structures marginally decreases from that of the pre-crisis period. In 1996, there exist 20 firms, accounting for 7.22 percent of all firms with controlling shareholders, in which cross-shareholdings are employed. Again, cross-shareholdings appear most in the firms controlled by a group of related families (16 firms).

When compared with more developed countries, the proportion of Thai firms exercising cross-shareholdings is relatively more prevalent. Cross-shareholdings are used in about 3.15 percent of the sample firms in La Porta et al. (1999) and 6.25 percent of the Western European firms in Faccio and Lang (2002).

When compared with those in other East Asian economies, controlling shareholders in Thailand, however, employ cross-shareholdings in the lesser degree. In particular, Claessens et al. (2000) document that in 1996, approximately 10.1 percent of firms in nine East Asian countries use cross-shareholdings. Regarding Thailand, they find that only 0.8 percent of Thai firms in their sample use cross-shareholdings, which are the least prevalent among all East Asian firms. We suspect, however, that their results might be underestimated since their sample coverage is small. More precisely, 232 firms are excluded probably because these firms are controlled by private companies in which ultimate owners are difficult to identify (see Claessens et al., 2000, p. 88). In fact, we find that pyramids and cross-shareholdings are often used in this type of firms.

[5] Among these 12 companies, nine companies belong to a single family, Chokwatana, who is one of the biggest business groups.

4.2 Ownership Concentration

In this section, we investigate ownership concentration in the hands of controlling shareholders, measured by cash-flow and voting rights. The results are shown in Panel A and B of Table 3. In 2000, a controlling shareholder owns, on average, 45.27 percent of the firm's cash-flow rights, and 48.18 percent of the firm's voting rights, with the median values of 44.41 percent and 46.99 percent, respectively. The cash-flow rights held by controlling shareholders range from 12.38 percent to 92.85 percent, while their voting rights range from 25.03 percent to 92.85 percent.

TABLE 3 NEAR HERE

Among all types of firms with controlling shareholders, the Thai government holds the highest mean value of cash-flow rights (52.71 percent), followed by the controlling shareholders in firms that are owned by related families (47.11 percent), unrelated families (46.47 percent), foreign investors (46.02 percent), and foreign institutional investors (43.03 percent). In firms controlled by domestic financial institutions and firms with multiple controlling shareholders[6], the controlling shareholders hold the lowest average cash-flow rights of 34.2 percent and 36.09 percent, respectively.

Regarding the control, the most concentrated voting rights appear in firms owned by the Thai government of 52.83 percent. The mean values of voting rights held by controlling shareholders in firms owned by related families (50.41 percent), unrelated families (48.05 percent), foreign investors (47.31 percent), and foreign institutional investors (43.03 percent) are also relatively high. The lowest mean values of controlling shareholders' voting rights are shown in firms owned by domestic financial institutions (40.3 percent) and firms with multiple controlling shareholders (40.13 percent).

[6] Note that cash-flow and voting rights in firms owned by multiple controlling shareholders are the rights held by the largest controlling shareholder.

Compared to the results of the pre-crisis period, the concentration of ownership and control in the hands of controlling shareholders slightly increases. Specifically, the average cash-flow rights (voting rights) held by controlling shareholders rise from 44.66 percent (47.75 percent) in 1996, to 45.27 percent (48.18 percent) in 2000. The median value of cash-flow rights increases from 44.1 percent to 44.41 percent, while the median value of voting rights declines from 47.75 percent to 46.99 percent.

Except the Thai government, cash-flow and voting rights of all groups of controlling shareholders increase after the crisis. Specifically, in firms owned by a group of related families, the controlling families hold, on average, 46 percent of the firms' cash-flow rights in 1996, compared to 47.11 percent in 2000. The mean value of cash-flow rights owned by the controlling shareholders in firms owned by domestic financial institutions rises from 27.26 percent in 1996 to 34.2 percent in 2000. The average cash-flow rights held by controlling foreign investors also increase from 42.85 percent to 44.77 percent.

Ownership concentration in firms controlled by a group of controlling shareholders is also higher. More precisely, a group of unrelated controlling families holds, on average, 43.75 percent of the firm's cash-flow rights in 1996, relative to 47.16 percent in 2000. Likewise, in firms owned by multiple controlling blocks, the mean value of cash-flow rights held by the controlling shareholders rises from 35.41 percent to 36.63 percent.

In contrast, the Thai government holds less cash-flow rights in 2000 than in 1996. Specifically, the average cash-flow rights held by the Thai government decline from 54.68 percent to 52.71 percent .

Regarding voting rights, we find that the controlling shareholders of firms that are owned by families (both related and unrelated), domestic financial institutions, and foreign investors have greater control after the crisis. The Thai government and multiple controlling blocks, however, hold less voting rights in 2000, relative to those in 1996.

Even if there are changes in the controlling shareholder's cash-flow and voting rights following the crisis, our results show that the mean and median values of these two rights in the hands of all types of controlling shareholders are not significantly different between the two periods.

In Panel C, the results support our findings in Section 4.1. As direct shareholdings are the most commonly used means of control, the deviation of control from ownership is small. Overall, the average ratio of cash-flow to voting rights is 0.939, meaning that a controlling shareholder holds 100 ultimate votes for each 93.9 direct shares owned. The median value of the ratio is one, however. This is relatively high when compared to the average ratio of firms in nine East Asian countries (0.746) documented in Claessens et al. (2000) and that of firms in 13 Western European countries (0.868) documented in Faccio and Lang (2002).

The largest separation between ownership and control occurs in firms that are controlled by domestic financial institutions (0.843). In contrast, firms controlled by the State and foreign institutional investors show almost no separation. In the middle of these two extreme cases are firms that are controlled by multiple controlling blocks (0.919), a group of related families (0.926), , foreign investors (0.967), and a group of unrelated families (0.97).

The degree of the separation between ownership and control appears to be slightly lower after the crisis. Specifically, the mean ratio of cash-flow to voting rights held by controlling shareholders is 0.931 in 1996 and 0.939 in 2000. The median values of the ratio for both periods are one, however. Among all types of firms with controlling shareholders, firms owned by a group of controlling shareholders have the greatest change in the mean ratio of cash-flow to voting rights. To be specific, the mean ratio increases from 0.938 in 1996 to 0.97 in 2000 in firms controlled by a group of unrelated families, and from 0.871 to 0.919 in firms with multiple controlling shareholders.

To a lesser extent, in foreign-owned firms, the mean ratio increases from 0.955 to 0.967. There are, however, no changes in the ratio of cash-flow to voting rights in related family-owned and state-owned firms during the two periods.

Following Claessens et al. (2002), we also calculate the difference between voting and cash-flow rights, by deducting the controlling shareholders' cash-flow rights from the voting rights they hold. The outcome reported in Panel D is consistent with the results in Panel C.

However, similar to changes in the controlling shareholder's cash-flow and voting rights, we do not find any significant changes in the ratio of cash-flow to voting rights as well as the difference between these two rights in all types of controlling shareholders, during the pre- and post-crisis periods.

4.3 Controlling Shareholders' Involvement in Management

We investigate how often the controlling shareholders and their family members are involved in management in this section. We categorize management into two groups: Executive and non-executive directors. An executive director is a person who holds one of the following positions: Honorary chairman, chairman, executive chairman, vice chairman, president, vice president, chief executive officer, managing director, deputy managing director, and assistant managing director. A non-executive director is a board member who does not hold an executive position.

Consistent with the previous literature, our results in Panel A of Table 4 show that controlling shareholders in about two-third of the firms are involved in management. Specifically, in about 67.84 percent and 60.78 percent of the firms with controlling shareholders in 2000, there is at least one member of the controlling family sitting in the board at top executive and non-executive levels, respectively.

TABLE 4 NEAR HERE

As expected, the controlling shareholders' participation in the board is most prevalent in firms controlled by families, including related and unrelated families. Statistically, the incidence of controlling families holding top executive positions occurs in 85.71 percent and 88.89 percent of the firms that are controlled by related families and unrelated families respectively. Similar picture emerges regarding the controlling shareholders' participation in non-executive positions. Specifically, this incidence appears in 76.19 percent and 94.44 percent of the firms controlled by related families and unrelated families, respectively.

Controlling shareholders in the firms with multiple controlling blocks are also highly involved in management. In 75 percent and 67.86 percent of such firms, their controlling shareholders sit in the executive and non-executive boards, respectively.

To a lesser degree, controlling shareholders in foreign-owned firms serve as executive and non-executive directors. This incidence is found in about 21.28 percent and 14.89 percent of these firms. Board representation by the controlling shareholders does not occur in the firms that are owned by foreign institutional investors, however.

Compared to the pre-crisis results, the controlling shareholders' involvement in management as executives slightly decreases from 68.95 percent in 1996 to 67.84 percent in 2000. The declining in the board representation by controlling shareholders is more pronounced at the non-executive level. The proportion of firms where controlling shareholders and their family members serve as non-executive directors declines from 65.7 percent in 1996 to 60.78 percent in 2000. However, in overall the incidence that controlling shareholders participate as both executive and non-executive directors does not differ significantly between these two periods.

Regarding each type of controlling shareholders, we find the interesting results that the proportion of firms where controlling shareholders serve as executives increases after the crisis in firms that are owned by families, namely a group of related and unrelated families. In related family-controlled firms, this proportion increases from 84.44 percent in 1996 to 85.71 percent in 2000, while in unrelated family-controlled firms the proportion increases from 66.67 percent to 88.89 percent. The percentage of firms with the controlling shareholders' involvement as top managers is also greater in firms owned by multiple controlling blocks, from 70 percent in 1996 to 75 percent in 2000. The fraction, however, is lower, from 23.91 percent to 21.28 percent, in foreign-owned firms.

Regarding the controlling shareholders' involvement in the board as non-executive directors, it turns out that controlling shareholders in all types of firms hold fewer board positions after the crisis.

We further investigate the controlling shareholders' involvement in management by controlling the board size effect. Panel B shows the ratio of board positions held by controlling shareholders divided by board size. The results reveal that controlling shareholders occupy about one-third of the firms' boards. The average ratios are 0.33 in both periods, while the median ratio is 0.29 in 1996 and 0.3 in 2000.

Consistent with the previous findings, the board representation by controlling shareholders is remarkably high in firms that are owned by families, and low in firms that are owned by foreign investors. To be specific, in related family-owned firms, the average ratio of board positions held by the controlling family to board size is 0.43, with the median value of 0.4. Similarly, in firms owned by a group of unrelated families, members of the families hold the mean ratio of 0.5, with the median value of 0.48. On the contrary, in foreign-owned firms, the average ratio of board position served by controlling shareholders to the total number of board positions is only 0.09, with the median value of zero.

When compared to the pre-crisis results, in firms owned by families, both related and unrelated, the controlling families' members hold a higher fraction of board positions. In contrast, in firms owned by multiple controlling blocks, the controlling shareholders have fewer positions in the board. The ratio of board positions held by any type of controlling shareholders to board size does not differ significantly in the periods before and after the crisis, although the differences in the mean and median values of this ratio are most pronounced in firms owned by unrelated families with the t-statistics of –1.65 and z-statistics of -1.63, respectively.

4.4 Managerial Ownership: The Case of Non-Controlling Shareholders

In this section, we analyze the ownership by executive and non-executive directors who are not the firm's controlling shareholders and the members of the controlling families. Table 5 shows that overall management that is not from the controlling shareholders or their families almost holds no shares. The median shareholdings of both groups of these directors are zero percent in both pre- and post-crisis periods. The average shareholdings of the executives, however, are 2.26 percent in 1996 and 2.54 percent in 2000. As for non-executives, their shareholdings are, on average, 3.18 percent in 1996 and 3.85 percent in 2000. There are no significant differences in the shareholdings of these directors between both periods, however.

TABLE 5 NEAR HERE

In the post-crisis period, the top executives in firms owned by a group of unrelated families have the highest average shareholdings of 4.08 percent with the median value of 1.99 percent, while the non-executive directors in firms owned by foreign institutional investors hold the greatest mean and median values of the shareholdings of 17.43 percent. In the pre-crisis year, however, the executives in foreign-controlled firms own more shares than those in other types of firms. Their average shareholdings are 3.3 percent, with the median value of zero percent. The non-executives in firms owned by domestic institutions hold the highest mean and median values of equity stakes of 11.29 percent. As one might expect, directors in firms that are controlled by multiple controlling blocks and by a group of related families hold the lowest shares in both periods.

5. Ownership Structure in Firms with no Controlling Shareholder

In this Section, we investigate the ownership of the firms that are defined as firms with no controlling shareholder. These firms account for 20.81 percent and 21.31 percent in our 1996 and 2000 samples, respectively. We examine whether such firms are really dispersedly owned, as described in the model of the UK and the US.

Panel A of Table 6 presents the cash-flow and voting rights held by the largest shareholder of these firms. The results show that the ownership of these firms is quite concentrated in both periods. In 2000, the largest shareholder holds, on average, 16.74 percent of the firm’s cash-flow rights with the median value of 16.49 percent. The average voting rights held by this largest shareholder is 18.16 percent with the median value of 19.51 percent. The maximum level of both rights is 25 percent, and the minimum is 5.57 percent. When compared with the pre-crisis results, the mean value of cash-flow rights held by the largest shareholder slightly increases from 16.38 percent in 1996 to 16.74 percent in 2000, while the mean values of voting rights are the same in these two periods.

TABLE 6 NEAR HERE

Panel B provides further information on the distribution of the ownership and control. In 2000, in 37.31 percent (25 firms) of all firms with no controlling shareholder, the largest shareholder has between 20 percent and 25 percent of cash-flow rights. Regarding the voting rights, in 29 firms (43.28 percent), the largest shareholder owns the range of 20 percent to 25 percent. So, if we relax the definition of controlling shareholdings from those with the voting rights of 25 percent to 20 percent, which is the threshold commonly used in the literature, then these 29 firms would be classified as firms with the controlling shareholder. This issue is also addressed in Section 3.

Interestingly, if we use the cut-off level of 10 percent[7], another commonly used threshold to define controlling shareholding, only seven firms in 1996 and six firms in 2000 can be classified as having no controlling shareholder or widely held. These firms account for only about 2 percent of the overall samples. These findings are consistent with those documented in Claessens et al. (2000) for the pre-crisis period. They find that 2.2 percent of Thai firms in their sample are widely held at the 10 percent cut-off.

If we lower the cut-off level further to 5 percent, then there would be no firm that can be classified as widely held in both periods.

Viewed collectively, our results show that, only a small fraction of firms in our sample can be considered as dispersedly held by atomistic shareholders in the same way as described in the US and UK model. In other words, the ownership of Thai publicly traded companies is very concentrated.

We also investigate the degree of discrepancy between ownership and control in these firms. The mean value of the ratio of cash-flow to voting rights is 0.93, with the median value of 1, suggesting that the control-enhancing means such as pyramiding and cross-shareholding are not

[7] In fact, at this level of ownership, a shareholder is defined as a major shareholder. According to the Thai corporate law, he has the right to ask the court for the company's dissolution and to demand the company to claim compensation from any misbehaved managers.

commonly used. This is similar to the case of firms with controlling shareholders documented in Section 4. In fact, our evidence reveals that the largest shareholder in 11 firms employs pyramidal structures, and in one firm uses cross-shareholdings. After the crisis, the degree of separation between ownership and control held by the largest shareholder is reduced, as measured by an increase in the ratio of cash-flow to voting rights from 0.91 in 1996 to 0.93 in 2000. The degree of separation is, however, not significantly different between the pre- and post-crisis periods.

6. Conclusion

This study documents the corporate ownership and board structures after the East Asian financial crisis. We compare the structure with those before the crisis to address the effects of an economic downturn on the ownership and board structures. The results reveal that the post-crisis ownership structure indicates a decline of the role of families in controlling publicly traded firms. The controlling families are replaced mainly by foreign investors and domestic financial institutions. We also find the greater fraction of firms controlled by multiple controlling shareholders after the crisis.

Controlling shareholders appear to use less complicated shareholdings, in the forms of pyramidal structures and cross-shareholdings, to enhance their control after the crisis. This is reflected in the lower deviation of control from ownership, as computed by the ratio of cash-flow to voting rights held by controlling shareholders, and by the simple difference between the two rights. Interestingly, we find that overall, the ownership and control in the hands of controlling shareholders become more concentrated subsequent to the crisis.

The degree of separation between ownership and management, measured by the incidence that controlling shareholders participate in the board, is not significantly different during the pre- and post- crisis periods. Nevertheless, families appear to participate more, while foreign investors seem to be involved less often in management.

Viewed collectively, although we do not find any statistically significant differences in the ownership and board structure of Thai publicly traded corporations between the pre- and post-crisis periods, it might still be hard to deny that the macroeconomic shock has no effect on the firms. The related issue on what factors determine the ownership and board changes after the crisis, however, is left for future research.

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Table 1 Identification of Controlling Shareholders

This table presents the identification of controlling shareholders. Our sample includes non-financial companies listed in the Stock Exchange of Thailand in 1996 and 2000. Firms are classified into each category according to their controlling shareholders. In Panel A and B present the results when the ownership cut-off levels are 25 percent and 20 percent, respectively. Companies without a controlling shareholder are classified as companies with no controlling shareholder. The *'difference'* column in Panel A reports the difference in the percentage of firms in each category between the two periods.

Panel A The 25 percent ownership cut-off

	2000		1996	
Type of controlling shareholder	No. of firms	%	No. of firms	%
1. Firms with controlling shareholders	255	79.19	277	78.69
1.1 With one controlling shareholder	209	64.91	236	67.05
1.1.1 A group of related families	147	45.65	180	51.14
1.1.2 State	9	2.80	8	2.27
1.1.3 Domestic financial institution	4	1.24	2	0.57
1.1.4 Foreign investor	47	14.60	46	13.07
1.1.5 Foreign institutional investor	2	0.62	0	0.00
1.2 With a group of controlling shareholders	46	14.29	41	11.65
1.2.1 A group of unrelated families	18	5.59	21	5.97
1.2.1 Multiple controlling shareholders	28	8.70	20	5.68
2. Firms with no controlling shareholder	67	20.81	75	21.31
Total	322	100.00	352	100.00

Panel B The 20 percent ownership cut-off

	2000		1996	
Type of controlling shareholder	No. of firms	%	No. of firms	%
1. Firms with controlling shareholders	289	89.75	311	88.35
1.1 With one controlling shareholder	212	65.84	242	68.75
1.1.1 A group of related families	151	46.89	192	54.55
1.1.2 State	9	2.80	6	1.70
1.1.3 Domestic financial institution	5	1.55	1	0.28
1.1.4 Foreign investor	45	13.98	43	12.22
1.1.5 Foreign institutional investor	2	0.62	0	0.00
1.2 With a group of controlling shareholders	77	23.91	69	19.60
1.2.1 A group of unrelated families	22	6.83	22	6.25
1.2.1 Multiple controlling shareholders	55	17.08	47	13.35
2. Firms with no controlling shareholder	33	10.25	41	11.65
Total	322	100.00	352	100.00

Table 2 Control Mechanisms

This table presents how firms are owned or how controlling shareholders exercise their control over the firms. Firms are classified into each category according to their controlling shareholders. A controlling shareholder is a shareholder who directly or indirectly owns more than 25 percent of the firm's voting rights. *Direct ownership* is when a controlling shareholder controls a firm directly under his name, or via his privately owned companies. *Pyramid* is when a firm is controlled via other public firms. *Cross-shareholding* is when there is an incidence of cross-shares between firms that are ultimately controlled by the same controlling shareholders. The percentage column is calculated as the proportion of firms that fall into each category divided by the total number of firms in such category of controlling shareholders.

	Direct (1)				Pyramid (2)				(1) and (2)				(1), (2), and cross-shareholding			
	2000		1996		2000		1996		2000		1996		2000		1996	
Type of controlling shareholder	No. of firms	%	No. of firms	%	No. of firms	%	No. of firms	%	No. of firms	%	No. of firms	%	No. of firms	%	No. of firms	%
One controlling shareholder																
A group of related families	112	78.32	136	76.84	2	1.40	6	3.39	21	14.69	22	12.43	12	8.39	16	9.04
State	8	88.89	8	100.00	0	0.00	0	0.00	1	11.11	0	0.00	0	0.00	0	0.00
Domestic financial institution	2	50.00	1	50.00	0	0.00	0	0.00	0	0.00	1	50.00	2	50.00	0	0.00
Foreign investor	41	89.13	39	90.70	0	0.00	1	2.33	6	13.04	5	11.63	0	0.00	1	2.33
Foreign institutional investor	2	100.00	-	-	0	0.00	-	-	0	0.00	-	-	0	0.00	-	-
Group of controlling shareholders																
A group of unrelated families	13	72.22	16	80.00	0	0.00	1	5.00	3	16.67	1	5.00	2	11.11	3	15.00
Multiple controlling shareholders	21	72.41	12	57.14	0	0.00	0	0.00	7	24.14	8	38.10	0	0.00	0	0.00
Total	199	78.04	212	76.53	2	0.78	8	2.89	38	14.90	37	13.36	16	6.27	20	7.22

Table 3 Ownership and Control Held by Controlling Shareholders

This table presents cash-flow and control rights held by the controlling shareholders, and the separation between these two rights. A controlling shareholder is a shareholder who directly or indirectly owns more than 25 percent of the firm's voting rights. Cash-flow rights represent the ownership stake held by the firm's controlling shareholders. Control rights represent the percentage of voting rights held by the firm's controlling shareholders. The cash-flow and control rights of firms with multiple controlling shareholders are the rights held by the largest controlling shareholder. The *'difference'* columns report two-tailed t-tests of equal means and Wilcoxon z-tests of equal medians for each variable between the two periods.

Panel A Cash-Flow Rights Held by Controlling Shareholders (%)

	2000			1996			Difference	
Firms with	No. of firms	Mean	Median	No. of firms	Mean	Median	t-stat.	z-stat.
One controlling shareholder								
A group of related families	147	47.11	47.63	180	46.00	47.07	-0.589	-0.540
State	9	52.71	49.00	8	54.68	46.12	0.183	0.000
Domestic financial institution	4	34.20	29.11	2	27.36	27.36	-0.512	0.000
Foreign investor	47	44.77	44.41	46	42.85	42.11	-0.636	-0.603
Foreign institutional investor	2	43.03	43.03	0	-	-	-	-
Group of controlling shareholders								
A group of unrelated families	18	47.16	47.98	21	43.75	42.52	-0.794	-0.866
Multiple controlling shareholders	28	36.63	38.73	20	35.41	35.58	-0.429	-0.439
Total	255	45.27	44.41	277	44.66	44.10	-0.574	-0.488

Panel B Control Rights Held by Controlling Shareholders (%)

	2000			1996			Difference	
Firms with	No. of firms	Mean	Median	No. of firms	Mean	Median	t-stat.	z-stat.
One controlling shareholder								
A group of related families	147	50.41	49.54	180	49.47	49.65	-0.704	-0.576
State	9	52.83	49.00	8	54.68	46.12	0.172	0.000
Domestic financial institution	4	40.30	38.87	2	30.92	30.92	-0.781	-0.463
Foreign investor	47	46.05	44.70	46	44.76	44.85	-0.468	-0.292
Foreign institutional investor	2	43.03	43.03	0	-	-	-	-
Group of controlling shareholders								
A group of unrelated families	18	48.05	49.16	21	46.46	46.41	-0.346	-0.338
Multiple controlling shareholders	28	40.13	40.34	20	40.41	39.80	0.143	0.052
Total	255	48.18	46.99	277	47.75	47.75	-0.350	-0.120

Panel C Ratio of Cash-Flow Rights to Control Rights Held by Controlling Shareholders

	2000			1996			Difference	
Firms with	No. of firms	Mean	Median	No. of firms	Mean	Median	t-stat.	z-stat.
One controlling shareholder								
A group of related families	147	0.926	1.000	180	0.927	1.000	0.103	0.424
State	9	0.998	1.000	8	1.000	1.000	0.934	0.943
Domestic financial institution	4	0.843	0.843	2	0.873	0.873	0.189	0.492
Foreign investor	47	0.967	1.000	46	0.955	1.000	-0.484	-0.363
Foreign institutional investor	2	1.000	1.000	0	-	-	-	-
Group of controlling shareholders								
A group of unrelated families	18	0.970	1.000	21	0.938	1.000	-1.394	-0.925
Multiple controlling shareholders	28	0.919	1.000	20	0.871	1.000	-0.865	-1.363
Total	255	0.939	1.000	277	0.931	1.000	-0.641	-0.507

Table 4 Controlling Shareholders as Managers

This table shows the degree of involvement in the management by the controlling shareholders. A controlling shareholder is a shareholder who directly or indirectly owns more than 25 percent of the firm's voting rights. Panel A shows the number of firms where the controlling shareholders are executive and non-executive directors. An executive director is a person who holds one of the following positions: honorary chairman, chairman, chairman of the management committee, executive chairman, vice chairman, deputy chairman, chairman of executive director, president, vice president, chief executive officer, managing director, deputy managing director, assistant managing director. A non-executive director is a person who is not an executive director or an independent director, but is a member of the board of directors. Figures in the percentage columns are calculated as the proportion of firms that fall into each category divided by the total number of firms in such category of controlling shareholders. The *'difference'* columns in Panel B and C report two-tailed t-tests of equal means and Wilcoxon z-tests of equal medians for each variable between the two periods.

Panel A Controlling Shareholders as Executive and Non-Executive Directors

	As executive directors				As non-executive directors			
	2000		1996		2000		1996	
Type of controlling shareholder	No. of firms	%	No. of firms	%	No. of firms	%	No. of firms	%
One controlling shareholder								
A group of related families	126	85.71	152	84.44	112	76.19	138	76.67
State	0	0.00	0	0.00	0	0.00	0	0.00
Domestic financial institution	0	0.00	0	0.00	0	0.00	0	0.00
Foreign investor	10	21.28	11	23.91	7	14.89	9	19.57
Foreign institutional investor	0	0.00	-	-	0	0.00	-	-
Group of controlling shareholders								
A group of unrelated families	16	88.89	14	66.67	17	94.44	20	95.24
Multiple controlling shareholders	21	75.00	14	70.00	19	67.86	15	75.00
All firms with controlling shareholders	173	67.84	191	68.95	155	60.78	182	65.70

Panel B Ratio of Board Positions Held by Controlling Shareholders to Total Number of Board Positions

Type of controlling shareholder	2000 No. of firms	2000 %	2000 Mean	2000 Median	1996 No. of firms	1996 %	1996 Mean	1996 Median	Difference t-stat.	Difference z-stat.
A group of related families	136	92.52	0.43	0.40	168	93.33	0.40	0.36	0.101	-0.044
State	0	0.00	-	-	0	0.00	-	-	-	-
Domestic financial institution	0	0.00	-	-	0	0.00	-	-	-	-
Foreign investor	13	27.66	0.09	0.00	15	32.61	0.09	0.00	0.226	0.543
Foreign institutional investor	0	0.00	-	-	-	-	-	-	-	-
A group of unrelated families	18	100.00	0.50	0.48	21	100.00	0.37	0.29	-1.651	-1.630
Multiple controlling shareholders	25	89.29	0.27	0.22	19	95.00	0.32	0.31	0.997	0.764
All firms with controlling shareholders	192	75.29	0.33	0.30	223	80.51	0.33	0.29	0.943	0.932

Table 5 Ownership by Board Members: Non-Controlling Shareholders

This table provides the ownership held by the directors who are not from the firm's controlling shareholders. Ownership here is measured by an aggregate percentage of cash-flow rights held by the board members. A controlling shareholder is a shareholder who directly or indirectly owns more than 25 percent of the firm's voting rights. Firms are classified into each category according to their controlling shareholders. Figures in the percentage columns are calculated as the proportion of firms that fall into each category divided by the total number of firms in such category of controlling shareholders. The '*difference*' columns report two-tailed t-tests of equal means and Wilcoxon z-tests of equal medians for each variable between the two periods.

Panel A Ownership by Executive Directors Who Are Not Controlling Shareholders (%)

	2000				1996				Difference	
Type of controlling shareholder	No. of firms	%	Mean	Median	No. of firms	%	Mean	Median	t-stat.	z-stat.
A group of related families	100	68.03	2.40	0.00	128	71.11	2.22	0.00	-0.368	0.332
State	9	100.00	0.00	0.00	8	100.00	0.00	0.00	-	-
Domestic financial institution	4	100.00	4.60	3.72	2	100.00	0.00	0.00	-1.115	-1.095
Foreign investor	42	89.36	3.43	0.00	39	84.78	3.30	0.00	-0.123	0.050
Foreign institutional investor	2	100.00	0.00	0.00	0	0.00	-	-	-	-
A group of unrelated families	13	72.22	4.08	1.99	19	90.48	2.51	0.00	-0.956	-1.542
Multiple controlling shareholders	22	78.57	1.11	0.00	17	85.00	1.60	0.00	0.454	0.211
All firms with controlling shareholders	192	75.29	2.54	0.00	213	76.90	2.26	0.00	-0.484	0.210

Panel B Ownership by Non-Executive Directors Who Are Not Controlling Shareholders (%)

	2000				1996				Difference	
Type of controlling shareholder	No. of firms	%	Mean	Median	No. of firms	%	Mean	Median	t-stat.	z-stat.
A group of related families	135	91.84	3.52	0.00	167	92.78	3.45	0.00	-0.265	0.524
State	9	100.00	1.44	0.00	8	100.00	2.88	0.00	0.612	0.579
Domestic financial institution	4	100.00	8.39	8.31	2	100.00	11.29	11.29	0.330	0.235
Foreign investor	45	95.74	5.42	0.00	44	95.65	3.80	0.00	-0.852	-0.378
Foreign institutional investor	2	100.00	17.43	17.43	0	0.00	-	-	-	-
A group of unrelated families	16	88.89	4.17	1.40	20	95.24	1.77	0.00	-1.520	-1.542
Multiple controlling shareholders	27	96.43	0.98	0.00	19	95.00	0.46	0.00	-0.730	0.113
All firms with controlling shareholders	238	93.33	3.85	0.00	260	93.86	3.18	0.00	-1.115	0.022

Table 6 Ownership by Largest Shareholder: Firms with no Controlling Shareholder

This table shows the cash-flow and control rights by the largest shareholder of firms that have no controlling shareholder. The numbers of such firms are 75 in 1996, and 67 in 2000. A controlling shareholder is a shareholder who directly or indirectly owns more than 25 percent of the firm's voting rights. The *'difference'* columns in Panel A report two-tailed t-tests of equal means and Wilcoxon z-tests of equal medians for each variable between the two periods. Figures in the percentage columns in Panel B are calculated as the proportion of firms that fall into each category divided by the total number of firms that have no controlling shareholders.

Panel A Summary Statistics of Cash-Flow and Control Rights Held by Largest Shareholder (%)

	2000		1996		Difference	
	Mean	Median	Mean	Median	t-stat.	z-stat.
Cash-flow rights	16.74	16.49	16.38	16.67	-0.052	-0.087
Control rights	18.16	19.51	18.16	19.89	0.339	0.479
Ratio of cash-flow to control rights	0.93	1.00	0.91	1.00	-0.425	-0.597

Panel B The Distribution of Cash-Flow and Control Rights Held by Largest Shareholder

	Cash-flow rights				Control rights			
	2000		1996		2000		1996	
Ownership level	No. of firms	%	No. of firms	%	No. of firms	%	No. of firms	%
0-5%	0	0.00	1	1.33	0	0.00	0	0.00
5-10%	10	14.93	9	12.00	6	8.96	7	9.33
10-15%	13	19.40	20	26.67	8	11.94	13	17.33
15-20%	19	28.36	21	28.00	24	35.82	21	28.00
20-25%	25	37.31	24	32.00	29	43.28	34	45.33
Total	67	100.00	75	100.00	67	100.00	75	100.00