

Designing Financial Systems in East Asia and Japan

Edited by

Joseph P.H. Fan, Masaharu Hanazaki
and Juro Teranishi

RoutledgeCurzon Studies in
the Growth Economies of Asia

 **RoutledgeCurzon**
Taylor & Francis Group

Designing Financial Systems in East Asia and Japan

A distinctive feature of the last decade has been the drastic change in the financial systems of the world due to globalization and innovation. The changes have resulted in more market-oriented systems and have required redesigning of existing financial institutions and markets, corporate governance and regulatory frameworks in order to achieve sustainable economic development. The East Asian crisis and prolonged depression in Japan have heightened the need to redesign financial systems in the region.

This book deliberates on some urgent issues that face the new architecture of the financial systems in Japan and East Asia. The book is broken into three sections:

- The role of financial institutions and markets in economic development in Japan and East Asia.
- Issues in corporate governance and new technologies.
- The designing of efficient financial systems.

With contributions from leading Asian economics experts based around the world, this book will be useful to both scholars and professionals with an interest in financial systems, corporate financing and governance.

Joseph P.H. Fan is Associate Professor at the Hong Kong University of Science and Technology.

Masaharu Hanazaki is Director General at the Research Institute of Capital Formation, Development Bank of Japan in Tokyo, Japan.

Juro Teranishi is Professor at the Institute of Economic Research, Hitotsubashi University in Tokyo, Japan.

First published 2004
by RoutledgeCurzon
11 New Fetter Lane, London EC4P 4EE

Simultaneously published in the USA and Canada
by RoutledgeCurzon
29 West 35th Street, New York, NY 10001

RoutledgeCurzon is an imprint of the Taylor & Francis Group

© 2004 Editorial matter and selection Joseph P.H. Fan, Masaharu Hanazaki & Juro Teranishi; individual chapters, the contributors

Typeset in Baskerville by Wearset Ltd, Boldon, Tyne and Wear
Printed and bound in Great Britain by MPG Books Ltd, Bodmin

All rights reserved. No part of this book may be reprinted or reproduced or utilized in any form or by any electronic, mechanical, or other means, now known or hereafter invented, including photocopying and recording, or in any information storage or retrieval system, without permission in writing from the publishers.

British Library Cataloguing in Publication Data

A catalogue record for this book is available from the British Library

Library of Congress Cataloging in Publication Data

A catalog record for this book has been requested

ISBN 0-415-32254-5

Contents

<i>List of contributors</i>	xii
<i>Preface</i>	xiv
Introduction: globalization, financial technology and growth phase – some thoughts on redesigning financial systems in East Asia and Japan	1
JOSEPH P.H. FAN, MASAHARU HANAZAKI AND JURO TERANISHI	
PART I	
Financial institutions and financial markets in Japan and East Asia	17
1 Can the financial restraint theory explain the postwar experience of Japan's financial system?	19
MASAHARU HANAZAKI AND AKIYOSHI HORIUCHI	
2 The role of long-term funds for economic development: Empirical evidence in Japan, Korea and Taiwan	47
SHIN-ICHI FUKUDA	
3 Japanese economic success and the curious characteristics of Japanese stock prices	84
RANDALL MORCK AND BERNARD YEUNG	
4 Japanese securities firms, business corporations and financial institutions: A comparison of their investing behavior	112
KENNETH A. KIM AND JOHN R. NOFSINGER	
5 Financial deregulations, weakness of market discipline and market development: Japan's experience	120
MITSUHIRO FUKAO	

x *Contents*

6 Macroeconomic effects of capital adequacy regulation in Japan 152
HEATHER MONTGOMERY

PART II
Issues in governance of corporate sector and new technology 185

7 The financing and governance of new technologies 187
COLIN MAYER

8 The benefits and costs of internal markets: Evidence from Asia's financial crisis 204
STIJN CLAESSENS, SIMEON DJANKOV, JOSEPH P.H. FAN AND LARRY H.P. LANG

9 Large shareholders and banks: Who monitors and how? 225
YISHAY YAFEH AND OVED YOSHA

10 Did families lose or gain control after the East Asian financial crisis? 247
ANYA KHANTHAVIT, PIRUNA POLSIRI AND YUPANA WIWATTANAKANTANG

11 The determinants of executive compensation in Japan and the UK: Agency hypothesis or joint determination hypothesis? 273
KATSUYUKI KUBO

PART III
Toward a new design of financial system 295

12 Toward an incentive compatible financial system: Accounting and managing the non-performing loans 297
AKIO KURODA AND KOICHI HAMADA

13 Further reforms of the JGB market for the promotion of regional bond markets 316
S. GHON RHEE

14 Reflections on the new financial system in Japan: Participation costs, wealth distribution and security market-based intermediation 334
YUKINOBU KITAMURA, MEGUMI SUTO AND JURO TERANISHI

Index 385

Contributors

Stijn Claessens is a Professor of International Finance, Faculty of Economics and Econometrics, University of Amsterdam, Amsterdam, Holland.

Simeon Djankov is a Senior Financial Economist, World Bank, Washington DC, USA, and Fellow, Centre for Economic Policy Research (CEPR), London, UK.

Joseph P.H. Fan is an Assistant Professor, Department of Finance, Hong Kong University of Science and Technology, Kowloon, Hong Kong.

Mitsuhiro Fukao is a Professor, Faculty of Business and Commerce, Keio University, Tokyo, Japan.

Shin-ichi Fukuda is a Professor, Graduate School of Economics, University of Tokyo, Tokyo, Japan.

Koichi Hamada is a Professor, Economic Growth Center, Department of Economics, Yale University, New Haven, CT, USA.

Masaharu Hanazaki is a Director General, Research Institute of Capital Formation, Development Bank of Japan, Tokyo, Japan.

Akiyoshi Horiuchi is a Professor, Faculty of Policy Studies, Chuo University, Tokyo, Japan.

Anya Khanthavit is a Professor of Finance, Faculty of Commerce and Accountancy, Thammasat University, Bangkok, Thailand.

Kenneth A. Kim is an Assistant Professor, Financial and Managerial Economics, School of Management, State University of New York at Buffalo, Buffalo, NY, USA.

Yukinobu Kitamura is a Professor, Institute of Economic Research, Hitotsubashi University, Tokyo, Japan.

Katsuyuki Kubo is a Lecturer, The School of Commerce, Waseda University, Tokyo, Japan.

Akio Kuroda is a Professor, School of Political Science and Economics, Meiji University, Tokyo, Japan.

Larry H.P. Lang is a Professor, Department of Finance, Chinese University of Hong Kong, Shatin NT, Hong Kong.

Colin Mayer is Peter Moores Professor of Management Studies, Saïd Business School, University of Oxford, Oxford, UK.

Heather Montgomery is a Research Fellow, Asian Development Bank Institute, Tokyo, Japan.

Randall Morck is a Stephen A. Jarilowsky Distinguished Professor of Finance, School of Business, University of Alberta, Edmonton, Canada.

John R. Nofsinger is an Assistant Professor of Finance, Department of Finance, Insurance and Real Estate, College of Business and Economics, Washington State University, Pullman, WA, USA.

Piruna Polsiri is a graduate student of the Department of Finance, University of Melbourne, Melbourne, Australia.

S. Ghon Rhee is a K.J. Luke Distinguished Professor of International Banking and Finance, College of Business Administration, University of Hawaii, Honolulu, HI, USA.

Megumi Suto is a Professor, Faculty of Economics, Chuo University, Tokyo, Japan.

Juro Teranishi is a Professor, Center for Economic Institutions, Institute of Economic Research, Hitotsubashi University, Tokyo, Japan.

Yupana Wiwattanakantang is an Associate Professor, Center for Economic Institutions, Institute of Economic Research, Hitotsubashi University, Tokyo, Japan.

Yishay P. Yafeh is a Senior Lecturer, School of Business Administration and Department of East Asian Studies, the Hebrew University, Jerusalem, Israel, and Associate Professor, Department of Economics, University of Montreal, Montreal, Canada.

Bernard Yeung is an Abraham Krasnoff Professor in Global Business, Economics, and Strategy/Management, Stern School of Business, New York University, New York, NY, USA.

Oved Yosha is an Associate Professor, Berglas School of Economics, Tel Aviv University, Tel Aviv, Israel.

Preface

This book is an outgrowth of the conference on “Designing Financial Systems in East Asia and Japan: Toward a Twenty-First Century Paradigm,” which was held on September 24–25, 2001 at the Hitotsubashi Memorial Hall in Tokyo. The conference was co-organized by the Regional Office for Asia and the Pacific of the IMF and the Center for Economic Institutions (CEI) of Hitotsubashi University. It was attended by 40 paper presenters and discussants, as well as 60 other participants who also joined the discussions from the floor.

This book is the first publication in English of the CEI, which was established in April 2000 as an affiliate to the Institute of Economic Research of Hitotsubashi University. The CEI has two objectives; first to conduct research on economic systems and institutions in Japan and Asia; and second to become one of the leading organizations in the field of research on economic institutions. It aims to achieve these objectives in part by organizing international research networks in these fields. For this purpose the Center has chosen corporate governance and financial systems in Japan and Asia as its main research agenda, a theme that represents the point of intersection of financial theory and the new theories of economic institutions.

For the CEI, this conference was an agenda-finding conference in order to start in-depth research. To have a broad perspective on the institution building in East Asia and Japan, the topic on designing financial systems is one of the most pertinent topics that would enable us to have an overview of ongoing institutional reforms, the problems behind them, and related theoretical and empirical researches. Since the conference, the CEI has been actively engaged in intense research activities, together with workshops, database construction and the establishment of international research networks. Some of the research has already been published in academic journals as well as books, namely “Corporate Governance in Japan and Asia,” which was edited by Masaharu Hanazaki and Juro Teranishi, to be published by the University of Tokyo Press in 2003 in Japanese. We hope to publish our research in English again in the near future.

The conference in 2001 took place against the background of consider-

able uncertainty and concern about the future, arising from a global economic slowdown that began in late 2000/early 2001, from the September 11 terrorist attacks in the US and from ten years of slow growth in Japan and policy muddles that paralyzed effective monetary and fiscal policies. More recently, turmoil in the region became protracted by the Iraqi war and SARS, and Japan’s economic slowdown seems to be compounded by worldwide deflationary tendencies.

All this underlines the necessity to find a framework of economic and financial systems that would fit better in an increasingly globalized world, where an effective mechanism for risk transfer and institutional coordination is urgently needed. We would also like to note that the task of resolving existing problems and establishing a new economic system remains a formidable challenge. The conference in 2001 provided an opportunity for us to renew this realization. As an organizer of the conference, I hope that this book contributes to expediting work that will lay down a basis for the future.

Finally, I would like to express my sincere appreciation of the valuable support and cooperation we have received from the IMF’s Regional Office for Asia and the Pacific in coorganizing the conference in 2001. My thanks are also due to Chiaki Iizuka, Chizuko Tsutsumi and Chikako Tamura for their superb secretarial assistance.

Juro Teranishi

- Kang, J. and A. Shivdasani (1996) "Does the Japanese corporate governance system enhance shareholder wealth? Evidence from the stock price effects of top management turnover," *Review of Financial Studies* 9: 1061–1095.
- (1997) "Corporate restructuring during performance declines in Japan," *Journal of Financial Economics* 46: 29–65.
- Kaplan, S. and B. Minton (1994) "Appointments of outsiders to Japanese boards: determinants and implications for managers," *Journal of Financial Economics* 36: 225–258.
- Leech, D. and J. Leahy (1991) "Ownership structure, control type classifications and the performance of large British companies," *Economic Journal* 101: 1418–1437.
- Main, B., A. Bruce and T. Buck (1996) "Total board remuneration and company performance," *Economic Journal* 106: 1627–1644.
- Morck, R. and M. Nakamura (1999) "Banks and corporate control in Japan," *Journal of Finance* 54: 319–339.
- Morck, R., A. Shleifer and R. Vishny (1989) "Alternative mechanisms for corporate control," *American Economic Review* 79: 842–852.
- Prowse, S. (1990) "Institutional investment patterns and corporate financial behavior in the United States and Japan," *Journal of Financial Economics* 27: 43–66.
- Sheard, P. (1989) "The main bank system of corporate monitoring and control in Japan," *Journal of Economic Behavior and Organization* 11: 399–422.
- Shleifer, A. and R. Vishny (1986) "Large Shareholders and Corporate Control," *Journal of Political Economy* 94: 461–488.
- Shleifer, A. and R. Vishny (1997) "A Survey of corporate governance," *Journal of Finance* 52: 737–783.
- Suzuki, K. (1993) "R&D spillovers and technology transfer among and within vertical Keiretsu groups: evidence from the Japanese electrical machinery industry," *International Journal of Industrial Organization* 11: 573–591.
- Weinstein, D. and Y. Yafeh (1998) "On the costs of a bank-centered financial system: evidence from the changing Main Bank relations in Japan," *Journal of Finance* 53: 635–672.
- Yafeh, Y. (1995) "Corporate ownership, profitability and bank-firm ties: evidence from the American occupation reforms in Japan," *Journal of the Japanese and International Economies* 9: 154–173.

10 Did families lose or gain control after the East Asian financial crisis?

*Anya Khanthavit, Piruna Polsiri and
Yupana Wiwattanakantang*

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 the financial system (Mitchell and Mulherin 1996; Holder-ness *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 compiled.

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

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-thirds 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 controlled 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.

Data construction

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

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 researched 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.

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, we often underestimate equity stakes held by the firm's shareholders without searching for the owners of these private companies.

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

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, or corporation. Note here that, similar to previous studies, in case foreign corporations hold shares in our sample firms we do not search for an ultimate owner of the parent companies of foreign corporate shareholders. So it might be the case that firms in which foreign corporations are controlling shareholders, and hence defined here as foreign-controlled firms, are actually widely held if the parent companies of these foreign corporations in their 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

- 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.

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 a category simply because their ownership could not be traced.

Results: who controlled 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 10.1 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 share-

Table 10.1 Identification of controlling shareholders

Panel A The 25 percent ownership cut-off				
Type of controlling shareholder	2000		1996	
	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
1.2.2 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				
Type of controlling shareholder	2000		1996	
	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
1.2.2 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

Note

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. Panels 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.

We compare our results with those of Claessens *et al.* (2000) while keeping the facts stated above 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, whilst 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, whilst 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 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.

Ownership and control of controlling shareholders

Control mechanisms

We investigate how the controlling shareholder owns and controls the

10.2 Control mechanisms

	Direct 1			Pyramid 2			1 and 2			1, 2 and cross-shareholding								
	2000			1996			2000			1996			2000			1996		
	No. of firms	%	No. of firms	%	No. of firms	%	No. of firms	%	No. of firms	%	No. of firms	%	No. of firms	%	No. of firms	%	No. of firms	
controlling shareholder	112	78.32	136	76.84	2	1.40	6	3.39	21	14.69	22	12.43	12	8.39	16	9.04		
group of related families	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	13	72.22	16	80.00	0	0.00	1	5.00	3	16.67	1	5.00	2	11.11	3	15.00		
group of unrelated families	21	72.41	12	57.14	0	0.00	0	0.00	7	24.14	8	38.10	0	0.00	0	0.00		
sole controlling shareholders	199	78.04	212	76.53	2	0.78	8	2.89	38	14.90	37	13.36	16	6.27	20	7.92		

able 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 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 that fall into each category divided by the total number of firms in such category of controlling shareholders.

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-thirds 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.

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, 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 remaining 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

16 firms, 12 companies⁵ 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 existed 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 to a 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 firm.

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 10.3. 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.

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

Table 10.3 Ownership and control held by controlling shareholders

Panel A: Cash-flow rights held by controlling shareholders (%)

	2000			1996			Difference		
	No. of firms	Mean	Median	No. of firms	Mean	Median	t-stat.	z-stat.	
Controlling shareholder									
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	18	47.16	47.98	21	43.75	42.52	-0.794	-0.866	
Group of unrelated families	28	36.63	38.73	20	35.41	35.58	-0.429	-0.439	
Multiple controlling shareholders	255	45.27	44.41	277	44.66	44.10	-0.574	-0.488	

(Continued)

Table 10.3 Continued

Panel B: Control rights held by controlling shareholders (%)

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

(Continued)

Table 10.3 Continued

Panel C: Ratio of cash-flow rights to control rights held by controlling shareholders

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

Notes:

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" column reports two-tailed *t*-tests of equal means and Wilcoxon *z*-tests of equal medians for each variable between the two periods.

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).

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 for 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 fewer 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

In Panel C, the results support our earlier findings. 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 is 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.

Controlling shareholder's 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 exec-

Table 10.4 Continued

Type of controlling shareholder	2000				1996				Difference	
	No. of firms	%	Mean	Median	No. of firms	%	Mean	Median	t-stat.	z-stat.
	A group of related families	136	92.52	0.43	0.40	168	93.33	0.40	0.36	0.101
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

Note

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 Panels 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.

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 positions 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 on 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.

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 10.5 shows that overall management that is not from the controlling shareholders or their families holds almost 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

Table 10.5 Ownership by board members: non-controlling shareholders

Type of controlling shareholder	2000			1996			Difference			
	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

(Continued)

Panel B: Ownership by non-executive directors who are not controlling shareholders (%)

Type of controlling shareholder	2000			1996			Difference			
	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

Notes

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.

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.

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.

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 10.6 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.

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 a controlling shareholder. This issue is also addressed in Section 3.

Table 10.6 Ownership by largest shareholder: firms with no controlling shareholder

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								
Ownership level	Cash-flow rights				Control rights			
	2000		1996		2000		1996	
	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

Note

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.

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 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.

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.

Notes

- 1 No shareholder is allowed to own more than 5 and 10 percent of the shares of commercial banks and finance companies, respectively.
- 2 See also Wiwattanakantang (2000 and 2001) for the argument of this issue.
- 3 A plausible reason why Claessens *et al.* (2000) find smaller number of widely held firms than our calculation might be that their samples exclude firms that are difficult to trace the ultimate owners.
- 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.
- 5 Among these 12 companies, nine companies belong to a single family, Chokwatana, one of the biggest business groups.
- 6 Note that cash-flow and voting rights in firms owned by multiple controlling shareholders are the rights held by the largest controlling shareholder.
- 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.

References

- Baek, J.S., J.K. Kang and K.S. Park (2002) "Economic Shock, Business Group, and Determinants of Firm Value and Restructuring: Evidence from the Korean Financial Crisis," mimeo.
- Bebchuk, L., R. Kraakman and G. Triantis (1999) "Stock Pyramids, Cross-Ownership, and Dual Class Equity: The Creation and Agency Costs of Separating Control from Cash Flow Rights," unpublished working paper, National Bureau of Economic Research.
- Claessens, S., S. Djankov and L. Lang (2000) "The Separation of Ownership and Control in East Asian Corporations," *Journal of Financial Economics* 58: 81–112.
- Claessens, S., S. Djankov, J. Fan and L. Lang (2002) "Disentangling the incidence and entrenchment effects of large shareholdings," *Journal of Finance* 57: 2741–2771.
- Denis, D. and A. Sarin (1999) "Ownership and board structures in publicly traded corporations," *Journal of Financial Economics* 52: 187–223.
- Faccio, M. and L. Lang (2002) "The ultimate ownership of Western European corporations," *Journal of Financial Economics* 65: 365–395.
- Grossman, S. and O. Hart (1988) "One share-one vote and the market for corporate control," *Journal of Financial Economics* 20: 175–202.
- Harris, M. and A. Raviv (1988) "Corporate governance: Voting rights and managerial rules," *Journal of Financial Economics* 20: 203–235.

- Holderness, C., R. Kroszner and D. Sheehan (1999) "Were the good old days that good? Changes in managerial stock ownership since the great depression," *Journal of Finance* 54: 435-469.
- Johnstone, W., D. Neilsen and A. Henderson (2001) *Thai business groups 2001: A unique guide to who owns what*, Bangkok: The Brooker Group Public Company Limited.
- Kole, S. and K. Lehn (1999) "Deregulation and the adaptation of governance structure: The case of the US airline industry," *Journal of Financial Economics* 52: 79-117.
- La Porta, R., F. Lopez-de-Silanes, A. Shleifer and R. Vishny (1998) "Law and Finance," *Journal of Political Economy* 106: 1113-1155.
- (1999) "Corporate ownership around the world," *Journal of Finance* 54: 471-517.
- Lemmon, M. and K. Lins (forthcoming) "Ownership structure, corporate governance, and firm value: Evidence from the East Asian financial crisis," *Journal of Finance*.
- Lins, K. (forthcoming) "Equity ownership and firm value in emerging markets," *Journal of Financial and Quantitative Analysis*.
- Mitchell, M. and H. Mulherin (1996) "The impact of industry shocks on takeover and restructuring activity," *Journal of Financial Economics* 41: 193-229.
- Mitton, T. (2002) "A cross-firm analysis of the impact of corporate governance on the East Asian financial crisis," *Journal of Financial Economics* 64: 215-241.
- Pornkulwat, S. (1996) "The development of business strategies of overseas Chinese: A case study of two families," unpublished thesis, Thammasat University (in Thai).
- Sappaiboon, T. (2000a) *The Lamsam Family*, Bangkok: Nation Multi Media Group (in Thai).
- (2000b) *The Fifty-five Most Well-Known Families Version 1*, Bangkok: Nation Multi Media Group (in Thai).
- (2001) *The Fifty-five Most Well-Known Families Version 2*, Bangkok: Nation Multi Media Group (in Thai).
- Sersansie, S. and W. Nimmansomboon (1996) *Public Limited Companies Act B.E. 2535*, 2nd edn. Bangkok: Nititham Publishing House.
- Stock Exchange of Thailand (1998) *Rules of Stock Exchange of Thailand*.
- Wiwattanakantang, Y. (2000) "The equity ownership structure of Thai firms," unpublished working paper, Institute of Economic Research, Hitotsubashi University, Japan.
- (2001) "Controlling Shareholders and Corporate Value: Evidence from Thailand," *Pacific Basin Finance Journal* 9: 323-362.
- Wolfenzon, D. (1998) "A theory of pyramidal ownership," unpublished working paper, Harvard University.

11 The determinants of executive compensation in Japan and the UK

Agency hypothesis or joint determination hypothesis?

Katsuyuki Kubo

Introduction

It is a widely held belief that the behavior of large Japanese companies is different from those of British counterparts, particularly in terms of their corporate governance style (Abegglen and Stalk 1985; Aoki 1988; Dore 1987). Although there are many studies on executive compensation, both in the UK and Japan (Cosh and Hugh 1997; Conyon 1995, 1997; Conyon, Gregg and Machin 1995; Conyon and Leech 1994; Conyon and Nicolitsas 1998; Gregg, Machin and Szymanski 1993; McKnight 1996; Kato 1997; Kaplan 1994; Xu 1997), much of the literature tends to focus on the relationship between directors' pay and stock market performance. Many of these studies often take for granted the "Anglo-American style of corporate governance." This chapter seeks to contrast the effect of corporate governance on the determinants of executive pay, by comparing the UK and Japan.

There is a considerable difference between Japan and the UK in terms of corporate governance. For example, shareholders and the financial market have considerable power over directors in large UK companies. There are more hostile take-overs in the UK than in Japan (Odagiri 1994; Prowse 1994). In large British companies, the proportion of non-executive directors on the board of directors is about 40 percent on average (Conyon, Gregg and Machin 1995), while in Japan, many companies do not have non-executive directors. In Japan other stakeholders, such as banks, group companies and employees have strong incentives to monitor top managers (Itami 1994; Sheard 1989).

The purpose of this research is to analyze directors' incentives in large companies in Japan and the UK, with particular emphasis on the relationship between corporate governance and executive compensation. For example, shareholders in large UK companies have relatively strong powers to control top managers and their compensation through remuneration committees and other devices. Principal-agent theory predicts