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Pyramidal group structure and bank risk in Thailand

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ABSTRACT

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This paper investigates how banks and finance companies operate in business groups. Using uniquely detailed ownership data from Thailand, we find that the controlling shareholders extensively use pyramids to control banks and finance companies and assign different lending strategies across pyramidal tiers. Lower-tier banks tend to extend loans more aggressively and perform more poorly, while upper tier banks carry out more profitable investments. After the crisis hit, upper-tier banks survived and almost all lower-tier banks went bankrupt. Our results suggest that the multilayer organizational structure of bank ownership can affect a bank's lending behavior and its resistance to economic shocks. *Journal of Comparative Economics* **44** (2) (2016) 272–288. ESCP Europe and Labex Réfi, Paris, France; ESCP Europe, Paris, France; National University of Singapore, NUS Business School, Singapore.

1. Introduction

Many banks and finance companies around the world are not widely held, but rather family controlled (Caprio, Laeven, and Levine, 2007). For example, Hong Kong's largest locally owned bank, the Bank of East Asia, is owned by the David Li family. Sweden's largest bank, the SEB Bank, is controlled by the Wallenberg family. In Chile, the Banco de Chile is controlled by one of the country's wealthiest families, the Luksić family. In the Philippines and Indonesia, more than two-thirds of the banks are family owned. Turkey presents a more extreme case where almost all banks are owned by families. Many top finance companies in India are also owned by family business groups. Despite the prevalence of family business group involvement in the financial and nonfinancial sectors[1], there is insufficient systematic evidence on family controlled financial institutions.

Most of family business groups are typically structured as pyramids. The literature focuses mostly on the role of pyramids in minority shareholder expropriation. In contrast, this paper is part of an emerging literature that seeks to understand the broader motivation of pyramid formation. Pyramids may provide financial advantages by allowing the controlling shareholder to pool the group firms' retained earnings to finance new investments. Almeida and Wolfenzon (2006a) rigorous

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[1] For example, La Porta et al. (1999),Claessens et al. (2000), and Faccio and Lang (2002).

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0147-5967/

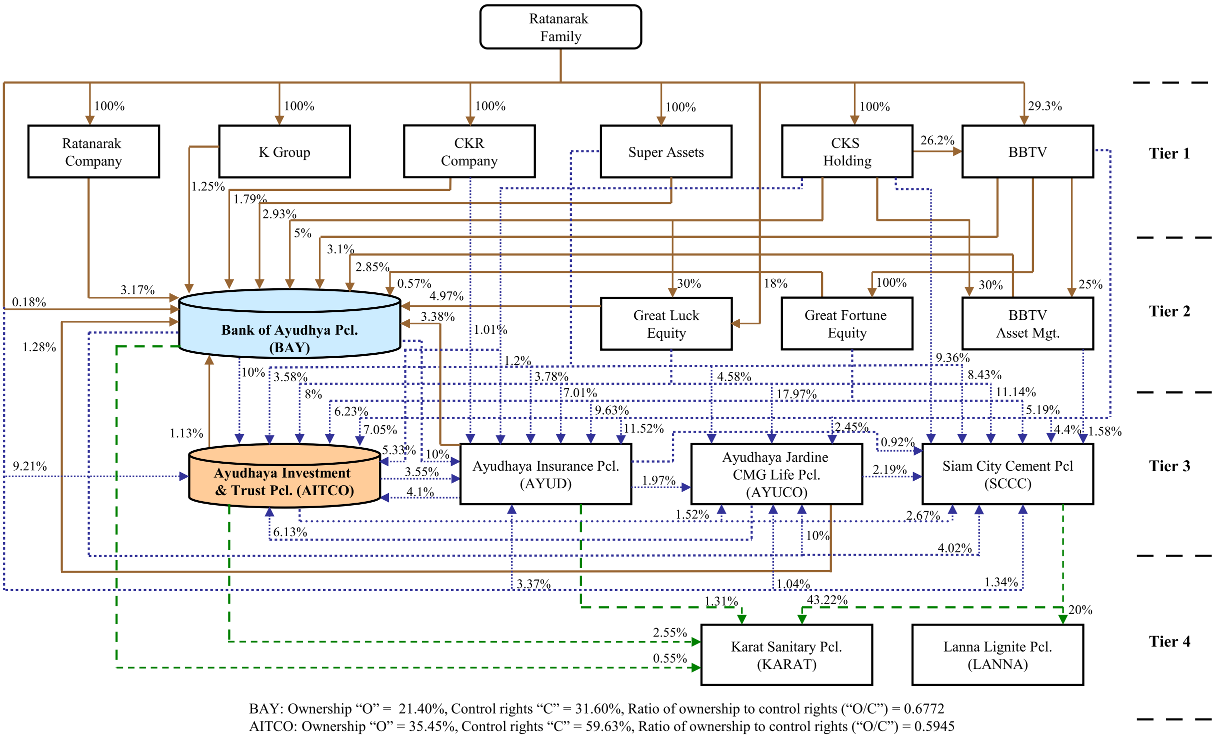

Fig. 1. The Ratanarak business group.

model shows that the controlling shareholder places new firms, which generate smaller profits, lower down in the pyramids. The negative relationship between the controlling shareholder's ownership and firm performance is therefore by selection and does not necessarily imply expropriation (Almeida et al., 2011; Masulis et al., 2011).

We develop our hypotheses based on the argument put forward by Morck and Nakamura (2004). The controlling shareholder not only designs the number of shares to own but also chooses a firm's location when structuring a pyramidal group. These locations provide various advantages. In particular, the controlling shareholder can assign investment strategies based on firms' locations in the pyramid. For example, firms lower in the pyramid undertake risky investments, while the firms nearest the apex carry out safer investments. If risky investments are unprofitable the lower-tier firms can be sold and the group does not lose significant control over other group firms. A well-crafted pyramid can insulate the entire group as well as the controlling shareholder from negative shocks.

Thai banks and the 1997 East Asian crisis provide a unique research setting to investigate this risk-sheltering hypothesis. We begin our analysis in constructing a detailed ownership dataset of all business groups that own banks and precisely define where banks are situated within the pyramidal group structure. As an example, Fig. 1 shows the ownership structure of the Ayudhya Group belonging to the Ratanarak family. Prior to the crisis the group owned one commercial bank, one finance company, two insurance companies, and a number of other nonfinancial companies. To control the Bank of Ayudhya, the family owned only 0.18% directly; but controlled 31.6% of voting rights and 21.40% of cash flow rights in the bank via an ownership arrangement with the other 13 group companies.

We study the risk-taking mechanisms of business groups using a simple and clear variable: loan growth. Prior to the 1997 crisis, loans were almost the only investment undertaken by Thai banks, accounting for more than 90% of their assets. Therefore, the bank's lending behavior alone conveys important information on future cash flows and solvency.[2] High loan growth indicates high risk taking if banks particularly have high exposure to the real estate sector, which is vulnerable to economic conditions. In fact, by 1996, the loan exposure of the real estate sector in Thai bank was around 30–40% of total loans with a value of US$160 billion. We use conventional profitability variables, ROA and ROE, as performance measures.

We classify the banks in our sample into upper- and lower-tier banks based on their location in pyramidal groups. It turns out that in both upper- and lower-tier banks the controlling shareholder holds a very similar ownership stake as measured by cash-flow and voting rights. Interestingly, prior to the crisis (1992–1996), lower-tier banks are associated with 50% more loan growth and markedly lower profitability than upper-tier banks—21% lower in terms of ROA and 50% lower in

[2] In contrast it is very complicated to analyze the risk taking behavior of non-financial firms as they have diversified investment portfolios. In fact researchers in the corporate finance literature have to use much noisier and inaccurate variables—beta, standard deviation of cash flows, capital expenditure, and research and development expenditure—to measure the risk taking of non-financial firms.