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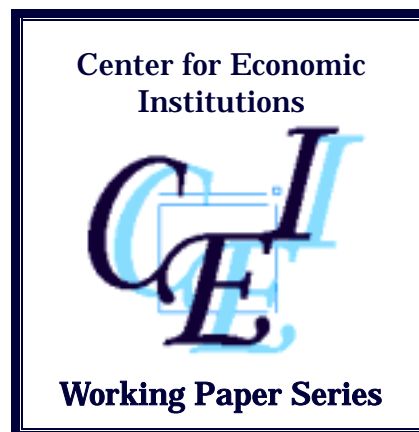
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Crony Lending: Thailand before the Financial Crisis

Abstract

The allocation of credit by banks on 'soft' terms to friends and relatives - often termed cronyism - rather than on the basis of 'hard' market criteria in the years leading up to the Asian financial crisis of 1997-98 has been hypothesized as an important cause of the crisis. These practices had their basis in the implicit guarantees provided by the government to banks, which in turn percolated down to firms having 'crony' ties to banks as soft-budget constraints for projects of uncertain quality. Such soft-budget constraints should be reflected in preferential access to long term bank credit for firms with close ties to banks. Using pre-crisis data on borrowing patterns in Thailand we find that firms with crony ties to banks and politicians had greater access to long-term debt than firms without such ties. Surprisingly, we find that a broad range of standard firm characteristics suggested as important factors by the literature on firm finance play a much less significant role in explaining the allocation of long term bank credit. Consequently, it is difficult to avoid the interpretation that 'cronyism' was by far the main driver of pre-crisis lending patterns.

1 Introduction

The Asian Crisis of 1997-98 has brought into sharp focus the distinctions between the relationship-based economic and financial system prevalent in many emerging economies and the arms-length, market-driven system that mainly characterizes the developed economies of Western Europe and North America. One influential view of the crisis (Krugman (1998), Corsetti et al. (1998a), Pomerleano (1998)) goes as far as to suggest that the crisis had its origins in the allocation of credit by banks and financial institutions on 'soft' terms to friends and relatives - often termed cronyism - rather than on the basis of 'hard' market criteria in the years leading up to the crisis. But while cronyism has been anecdotally accepted as an endemic feature of emerging economies, empirical work linking close ties to preferential finance is scant[1]. The goal of this paper is to examine whether cronyism is in fact a good predictor of preferential access to credit using a detailed dataset on Thai firms prior to the crisis period.

We believe our focus on corporate debt in Thailand is especially appropriate for the study of cronyism in lending practices. Thailand was the first casualty of the crisis, experiencing the first wave of serious speculative attacks on its currency in July of 1997 followed by a sharp decline in its stock market, after which South Korea, Malaysia, Indonesia and the Philippines were affected. Attempts to reconstruct the circumstances leading up to the crisis (such as Corsetti et al. (1998a), Corsetti et al. (1998b), Pomerleano (1998)) argue this was not surprising since Thailand was the country with the shakiest macro-economic fundamentals toward the end of 1996. Among the manifestations of weakness were large external deficits, increasing short-term foreign indebtedness and the fragile conditions of banks due to an accumulation of bad loans.

Discussions of cronyism in finance in the wake of the Asian financial crisis suggest that banks often extended preferential finance to projects of dubious quality promoted by their friends or relatives because banks (or bankers) obtained private benefits from such projects. Such bank behavior is likely to have been amplified by implicit guarantees provided by the government to bail out banks in the event of widespread project failure. While the government would, of course, ideally like to avoid this 'soft-budget constraint' situation by monitoring banks more strictly, if the institutions of corporate governance are poorly developed, as is often the case in emerging economies (Johnson et al. (2000)), monitoring can be quite costly for the government, and even if long-term financing is prevented to non-crony firms, banks may still

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[1]We discuss some of the recent related work below.

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find it worthwhile to extend such financing to crony firms. In section 2, we provide a brief overview of the institutional environment of the Thai banking and financial system prior to the crisis that supports this view.

Standard economic reasoning suggests that if projects vary in their likelihood of success and banks can discriminate in terms of the maturity of their debt contracts, then banks ought to avoid extending long term finance to poor quality firms. However, the presence of such 'crony' transfers can overturn such results. We present a simple analytical argument along these lines in section 3 in order to ground our empirical approach to the issue.

Our empirical methodology, which we describe in section 4, attempts to examine whether firms with crony ties to banks have easier access to long term debt than firms without such ties. We use a number of measures, such as affiliation to one of the 60 largest Thai business groups, and the presence of bankers on the board of the firm and as executives in the firm as proxies for 'crony' ties. We find that these crony ties are by far the most important factor explaining access to long term debt. Surprisingly, we find that a host of standard firm characteristics that the current literature on firm financing suggests should be important in explaining easier access to debt play a much less significant role. We suggest that these results lend support to the hypothesis that cronyism was the most important factor determining access to long term bank debt prior to the financial crisis. Section 5 discusses these results.

Our paper is related to the growing literature that examines the impact of connections on firm performance. The paper closest to our approach is La Porta et al. (2003). They examine the benefits of related lending using a newly assembled dataset on Mexico. They find that related lending is present in 20% of commercial loans and that it takes place on more favorable terms than arms-length lending. They also find that related loans are more likely to default, and when they do, have significantly lower recovery rates than unrelated loans. It is noteworthy that our results for a different emerging market, Thailand, are essentially consistent with theirs.

Related issues are also examined by Laeven (2001) using a dataset on bank-firm relationships in Russia. Russian banks can make loans to firms that own substantial equity stakes in the bank. His notion of cronyism is thus in terms of equity stakes and different from the approach we take here. In fact, as we discuss in more detail in section 5, lending to insiders in Thailand is proscribed by the Commercial Banking and Finance Company Law. However, in line with our study, he also finds evidence for cronyism is lending practices.

It is important to note that our study differs from these papers in a number of substantive

ways. First, we construct explicit measures based on membership to politically connected business groups and firm-bank board interlinkage that we feel capture the essence of cronyism. Second, since our study focusses on an economy that is in the shadow of the east asian crisis of 1997-98, we examine the link between cronyism and debt maturity. As borrowing practices have been implicated in precipitating the crisis, our study could be considered valuable in terms of forensic financial evidence toward understanding the crisis (Johnson et al. (2000)).

Recent papers by Fisman (2001) and Johnson and Mitton (2001) also examine the role of political connections on firm performance in the context of emerging economies. Fisman (2001) estimates the value of political connections in Indonesia by looking at how stock prices moved when former President Suharto's health was reported to change. Johnson and Mitton (2001) examine the impact of connections in Malaysia by looking at the fall in the market value of connected firms in the wake of the Asian financial crisis and the subsequent reinstatement of capital controls that differentially benefited firms with connections. Both papers find significant evidence for the value of connections.

Nor is the phenomenon restricted to emerging markets. Morck et al. (1998) show that established, well-connected firms in Canada (as measured by family inheritance of control) are less efficient and had negative abnormal stock returns when the 1998 Canada-U.S. free trade agreement reduced barriers to foreign capital.

The rest of the paper is structured as follows. The next section is a brief introduction to the institutional background of the Thai banking system and its connected nature. Section 3 outlines a theoretical framework suggesting the way cronyism in finance affects incentives and decisions at the levels of the bank, firm and government. Section 4 describes our methodology and data. Section 5 discusses our empirical results. Section 6 provides robustness tests. Section 7 concludes.

2   Institutional Background: The Thai Banking System

This section provides a brief overview of the Thai banking system prior to the 1997 financial crisis with a view toward highlighting the prevalence of crony ties between banks and firms and some of the problems that could be associated with such relationships. Section 2.1 is an outline of the historical development of the Thai banking system. Section 2.2 suggests the existence of a 'soft budget constraint' at the next level of the institutional hierarchy, between

the government and the banks, in the form of implicit guarantees to bail out banks if widespread project failure were to occur. We should expect these practices to be manifested in the loan-portfolio of the banks and Section 2.3 draws attention to the problem of non-performing loans during this period that is consistent with such a view.

2.1 Background

The "Book Club" is the first local commercial bank and was established in 1904. The bank became the Siam Commercial Bank in 1906. The establishment of local banks grew rapidly during the period 1930-1950 (Bualek (2000)). Out of 20 commercial banks that were established during this period, 14 banks were founded by overseas Chinese families with the purpose of chanelling funding to their own businesses[2]. The six remaining banks were founded by the Crown Property Bureau[3].

By the 1970s, the big banking families had expanded their banking businesses and had established almost virtual control not only over other financial institutions but also a wide array of economic activities. For example, the Sophonpanich family not only owned the Bangkok Bank, but also owned 34 finance and investment companies, 6 insurance companies, and had large interests in rice trading, rice milling, warehousing, textiles, vehicle assembly, restaurants, real estate, cement, tin, soft drinks, iron and steel, and plastics (Hewison (1989)). As a result, these Thai-Chinese families not only controlled their own corporations, but also had substantial influence over other corporations through their lending.

This expansion of ownership and control over the economy by the big banking and indus-trial families exhibited a unique characteristic of Thai capitalism, namely the intertwining of business and personal bonds through marriage. In part because of such bonds, the Thai finan-cial system exhibited an increasingly oligopolistic structure. Within the commercial banking sector, business became concentrated among the three largest banks, the Bangkok Bank, the Thai Farmers Bank, and the government-owned Krung Thai Bank. By the end of 1986, these three banks together accounted for 57 percent of total commercial bank assets.

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[2]These families are Cholvicharn and Phenchart (Union Bank of Bangkok, 1949), Euachukiarti and Kanta-manond (Bank of Asia, 1939), Euawatanaskul (Bangkok Metropolitan Bank, 1950), Kanchanapat (Siam City Bank, 1941), First Bangkok City Bank (1960), Lamsam (Thai Farmers Bank, 1945), Nandhabivat (Laemthong Bank, 1948), Rattanarak (Bank of Ayudhya, 1945), Sophonpanich (Bangkok Bank, 1944), Tarnvanichkul (Asia Trust Bank, 1965), Tejapaibul (Bank of Asia, 1939, Bangkok Metropolitan Bank, 1950, and First Bangkok City Bank, 1960), and Wang Lee (Nakornthon Bank, 1933).

[3]The Crown Property Bureau is the founder of the following banks: Siam Commercial Bank (1906), Siam City Bank (1941), Krung Thai Bank (1966), Thai Dhanu Bank (1949), Nokornthon Bank (1933), and Thai Farmers Bank (1945).

Finance and securities companies constituted the second major group of financial intermediaries. The first full-fledged finance company was established in 1969. The number of finance companies grew rapidly during the 1970s from 17 in 1971 to 118 in 1979, when foreign and local banks set up such companies to avoid the moratorium on new banking licenses imposed by the Thai cabinet in mid 1970s, and to avoid the maximum interest rate and credit controls imposed on commercial banks (Johnston (1991)). By the end of 1987, 26 out of the 93 finance companies were affiliated with private Thai commercial banks, and a further 12 were affiliated with the Krung Thai Bank.

By the end of 1996, the formal Thai financial system consisted of the following financial intermediaries: the Bank of Thailand (BOT); 29 commercial banks (14 of which were branches of foreign banks); 91 finance companies; and 12 credit foncier companies; 7 specialized state-owned banks; 15 insurance companies; 880 private provident funds; and 8 mutual fund management companies. Sixteen commercial banks and 52 finance companies were listed in the Stock Exchange of Thailand, most of which were owned or controlled by family-based business groups. Specifically, about 62.5 percent of banks and 75 percent of finance companies are controlled by either a single family or multiple families (Anuchitworawong et al. (2002)).

Total assets of the system amounted to the equivalent of 190 percent of GDP. Commercial banks alone accounted for 64 percent of total assets, while finance companies accounted for 20 percent of total assets, and state-owned specialized banks accounted for a further 10 percent.

2.2   Implicit Guarantees, Crony Lending, and Banking Crises

Extensive anecdotal evidence suggests that these influential families maintained banks and finance companies as off-shoots of their businesses. Consequently, local Thai banks extended loans based on personal ties and collateral but not on the basis of expected future cash-flow. On several instances these mis-allocated loans bankrupted the banks because the loans were concentrated among only a few well connected influential families who eventually defaulted. For example, Thanapornpun (1999) describes how in 1986 the Krung Thai bank allocated a large amount of loans to the Srikrungwattana group, Pol Rengprasertwit and Sura Chansrichawala families on preferential terms.

One of the most notorious cases concerns the lending practices of the Bangkok Bank of Commerce (BBC), a medium sized bank, during the first half of the 1990s. The bank allegedly granted a very large amount of loans to firms that were affiliated to Rajan Pillai, Rages Sakdina,

Adnan Khashoggi and Suchat Thanchareon, who were close friends of the bank's president and major shareholder, Krirk-kiat Jalichandra. The bank collapsed in 1996 and the president was not only dismissed but also charged by the Thai Economic Crime Suppression Division for embezzling USD 66.3 million from the bank and extending huge loans beyond his authority. The bank was subsequently recapitalized by the government. The BBC could be considered the first bank to succumb to problems arising from poor lending practices, a pattern that other financial institutions eventually displayed and which developed into the 1997 banking crisis.

Arguably, the principal reason why financial institutions in Thailand felt comfortable engaging in lending based on personal ties was their belief in the implicit guarantees provided by the Bank of Thailand (BOT) to the effect that they would be bailed out in the event of financial distress. Over the past two decades, these implicit guarantees were provided in several forms. First, insolvent financial institutions were often directly bailed out, a practice dating from the latter half of 1980s until the onset of the 1997 crisis. The BOT rarely forced insolvent financial institutions to immediately cease operations even though lax lending practices by financial institutions on the basis of personal ties continued and has led to a number of crises in the Thai financial system over the past two decades. To facilitate the bail out policy, the Financial Institutions Development Fund (FIDF) was established in 1984. It's brief has been to rehabilitate and improve troubled financial institutions and safeguard depositors and creditors.

Second, besides rescuing financial institutions by providing liquidity support, the BOT has always bailed out depositors and creditors. Even though Thailand never had an explicit deposit insurance policy until 1997, when a blanket guarantee decree was issued, history reveals that depositors were always protected (Wesaratchajakit (2002)). For example, during the banking crisis in the mid of 1980s, depositors were compensated by the government in full. During the 1997 banking crisis, the FIDF also paid the creditors of the 56 failed finance companies. It is widely thought that these practices created expectations that the government would bail out the financial system regardless of the costs.

Third, bank supervision and examination are poor. In addition, the BOT has punished neither financial institutions nor executives for lending to risky projects that led to non-performing loans. These issues are also acknowledged in the Nukul Commission Report[4]. According to

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[4]This report is prepared for the government in 1998. The objective is to identify the causes of economic and mis-management and corruption in the BOT. It provides recommendations to improve the efficiency of the financial system and reforms of the BOT. The chairman of the commission is Nukul Prachuabmoh, a former governor of the BOT. Other members include the country's leading economists and lawyers.

the report on the BBC issue, the BOT failed to detect that the problems with non performing loans since 1991 were serious and needed to be solved urgently. Hence, the BOT did not take appropriate actions which should have included replacing the incumbent management of the bank and reducing its capital. The BOT recognized the BBC problem when it was too late and there was a run on bank deposits in 1996.

Fourth, the BOT not only bailed out financial institutions in troubled times but also protected their status by concealing information, in particular on the non-performing loan problem, from the public (Thanapornpun (1999)). An interview in the Thai newspaper The Nation (November 28, 1997) by Banthoon Lamsam, the president of the Thai Farmer's Bank, which is Thailand's second largest bank, noted in Laird (2000) highlights this issue, and is reproduced here.

> "Financial institutions generating bad loans have never been punished because the authorities and the institutions themselves swept the problems under the carpet. In the past, the authorities were not transparent in the area of information collection, and would conceal information from the public in order to protect (the institutions') status."

Several cases of the BOT's bail out of financial institutions during 1980-1996 can be summarized as follows. In 1984-1987, the BOT took over three banks, namely the Asian Trust Bank, Siam City Bank, and Bangkok City Bank, that experienced serious liquidity problems, and subsequently merged them with the government owned Krung Thai Bank. In 1993, there was a run on First City Investment which is a finance company in the upper quartile of all finance companies in asset and deposit size. The BOT took a USD 80,000 stake in the bank. Three years later in 1996, there was a run on the Bangkok Bank of Commerce (BBC) prompting the BOT to inject USD 520,000 in exchange for a 32 percent stake of the bank. In 1997, the FIDF further injected USD 26.12 million which is around 10 percent of GDP to shore up finance companies[5].

However, by the late summer of 1997, the Bank of Thailand found such bail-out promises unsustainable and eventually 56 finance companies went bankrupt and were forced to close.

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[5]The exchange rate was fixed during the beginning of 1990s at USD 1= Baht 25.

2.3 Non-Performing Loans

One might argue that banks have incentives to provide more long term financing to firms that banks have close personal connections or board ties to because these connections help limit information asymmetric and moral hazard problems. Thus connected lending should be valuable both to the firms and banks. But, as noted also in La Porta et al. (2003), if lending to friends whom the banks know well improves information flows, then such lending should end up having lower or no default rates, or at worst having high recovery rates. Unfortunately, due to data unavailability, we are not able to directly provide a systematic analysis on this issue. But we believe that the evidence on the massive amount of non performing loans carried by banks and finance companies, and which subsequently bankrupted a number of them is inconsistent with the information view and arguably supports the crony lending view.

Panel A of Table 1 shows the proportion of non performing loans (NPLs) to outstanding loans over 1997-2000. NPL is defined as a loan that has stopped payment on principal and interest for at least 3 months. The laxity in lending practices is shown by the extremely high levels of NPLs. The peak of the bad loan problems is in 1998 when the average ratio of NPL to outstanding loans held by banks and finance companies were 45.02 percent and 70.16 percent, respectively. It is widely believed, however, that the NPL figures tend to undermine the real problems. For example, while NPLs disclosed by Krung Thai Bank, the second largest state owned bank, are 59 percent of outstanding loans, the figure that was estimated by Pricewaterhouse Coopers who audited the bank is 84 percent (Bangkok Post, November 9, 1999).

The bad loan problem has been an important contributory factor to the banking crisis that started in 1997. As a consequence of this crisis a number of financial institutions became insolvent. Panel B provides the number of financial institutions from 1996-2001. The government suspended 58 finance companies in August 1997, 12 finance companies and six commercial banks in 1998, and one commercial banks and one finance company in 1999. Consolidations including mergers reduced the number of local commercial banks from 15 at the end of 1996 to 13 by 2001. In sum, out of 14 domestic banks as of 1996, three were closed down, two were taken over by the government and three became foreign owned banks. As for finance companies, out of 91 companies as of 1996, 71 were closed down.

[Insert Table 1 Here]

3 The Model

In this section we present a simple and stylized version of the trade-off that a bank faces in deciding whether to extend short-term or long term financing to a firm. In an environment consisting of firms that are heterogeneous in terms of their quality, we find that, other things being equal, a bank should extend long-term financing only to high quality firms. However, the introduction of cronyism can overturn this result. Furthermore, if we were to nest the simple bank-firm interaction into a higher level interaction between the government and the bank, the presence of soft-budget constraints can increase the likelihood of poor bank diligence and consequently the need for bailouts of the bank by the government.

Firms

Our economy consists of a continuum of risk neutral entrepreneurs normalized to unity. Each entrepreneur is the owner of a blueprint for an investment project that requires a capital outlay of I for the purchase of productive assets. Entrepreneurs have no wealth and hence have to rely on external finance from the bank. These assets can then be combined with entrepreneurial effort β at a unit cost of 1 to produce a return on the investment. Assets are purchased at date 0 and can be liquidated at date 1 (if the contract permits) for value L where $L \leq I$. At date 2, these assets depreciate to value zero.

There are two possible states at date 1. The state can be good with probability q and bad with probability $(1 - q)$. In the good state, the project pays out X_S if it is terminated in period 1. If a project in the good state runs till period 2 it pays out X_L. We assume that $X_L > X_S > L$.

Entrepreneurial effort $\beta \in [0, \infty)$ along with an exogenous quality parameter $\theta \in [0, 1]$, affect the probability q of the good state occurring. We thus assume $q = q(\beta, \theta)$ has the following properties:

$$q_1(\beta, \theta) > 0, q_{11}(\beta, \theta) < 0, q_2(\beta, \theta) > 0 A1 \tag{1}$$

$$q_1(0, \theta) = \frac{1}{\epsilon}, q_1(\infty, \theta) = 0 A2 \tag{2}$$

$$q_{12}(\beta, \theta) > 0 A3 \tag{3}$$

where the subscripts denote partial derivatives with respect to the first or second parameter, respectively. A1 states that the probability of the good state being realized is increasing and concave in effort β and is increasing in quality θ. A2 states that the marginal benefit of effort decreases to zero from a large number. A3 states that the marginal benefit of effort is increasing in entrepreneurial quality.

Banks

Banks choose to offer one of two types of loan contracts to firms. One type of contract lasts only one period, between periods 0 and 1, and is referred to as the short-term loan contract. The other type of contract lasts two periods, between periods 0 and 2, and is referred to as the long-term loan contract. Successful project returns are divided between the firm and the bank in the exogenously given proportions μ, and $1 - \mu$.

Information

Everyone knows quality at date 0. Once the project starts, the entrepreneur knows the effort exerted. The bank learns the effort provided and the state at the same time as the owner. Reservation payoffs are zero for all parties. Contracts have to be entered into at date 0 and no renegotiation is possible mid-stream.

This framework sets up a very simple trade-off for the bank in terms of deciding whether to extend short-term or long-term loans to the firm. Long-term loans have the attraction of higher returns if successful but have the downside of no salvage value if unsuccessful. Short term loans yield smaller gains if successful but have the benefit of liquidation returns if unsuccessful. We consider this trade-off for the bank in deciding whether to extend short-term or long-term financing to firms.

[Insert Figure 1 here]

Short-term contracts

The payoff for the bank is

$$\Pi_B^S = q(1 - \mu)(X_S - I) - (1 - q)(I - L) \tag{4}$$

where the subscript denotes the player and the superscript denotes the maturity of the contract. The payoff for the firm is

$$\Pi_F^S = q\mu X_S - \beta \tag{5}$$

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The first order condition on (5) is

$$q_1^S(\beta, \theta) = \frac{1}{\mu X_S} \tag{6}$$

which yields the effort of the entrepreneur $q_S^*(\beta, \theta)$.

Consequently the payoff for the bank (4) can be written as

$$\Pi_B^{S*} = q_S^*(1 - \mu)(X_S - I) - (1 - q_S^*)(I - L) \tag{7}$$

Long-term contracts

The payoff for the bank is

$$\Pi_B^L = q(1 - \mu)(X_L - I) - (1 - q)I \tag{8}$$

The payoff for the firm is

$$\Pi_F^L = q\mu X_L - \beta \tag{9}$$

The first order condition on (9) is

$$q_1^L(\beta, \theta) = \frac{1}{\mu X_L} \tag{10}$$

which yields the effort of the entrepreneur $q_L^*(\beta, \theta)$.

Consequently the payoff for the bank (8) can be written as

$$\Pi_B^{L*} = q_L^*(1 - \mu)(X_L - I) - (1 - q_L^*)I \tag{11}$$

Since $q_1^S < q_1^L$, then by A1 it follows that $q_L^* > q_S^*$. In other words, regardless of firm type, effort is higher under long term contracts. However, the question of interest for us is how the type of the firm should influence the bank in deciding whether to offer long term or short term contracts to a firm. In order to answer this consider the following difference between the payoffs of the bank under each type of contract.

$$D \equiv \Pi_B^{L*} - \Pi_B^{S*} = q_L^*(1 - \mu)(X_L - I) - (1 - q_L^*)I - q_S^*(1 - \mu)(X_S - I) + (1 - q_S^*)(I - L) \tag{12}$$

Differentiating (12) with respect to firm type (i.e., the second argument in the q function) yields,

$$\frac{\partial D}{\partial \theta} = q^*_{2L}(1 - \mu)(X_L - I) + q^*_{2L}I - q^*_{2S}(1 - \mu)(X_S - I) - q^*_{2S}(I - L) \tag{13}$$

Using A3 and comparing terms in (13) it is easily observed that $\frac{\partial D}{\partial \theta} > 0$. In other words, the long-term versus short-term loan profit differential for the bank is increasing in the quality of the firm. Another way to understand the meaning of this is to start from a situation where the bank is indifferent between each type of loan, i.e., $D = 0$. Even a small improvement in firm quality profit from this point should lead the bank to favor long- term loans. And conversely, a small reduction in firm quality from this point should lead the bank to favor short-term loans. With an eye toward our empirical strategy we summarize this discussion follows.

Result 1: *Firm quality should be an important determinant of loan maturity. Ceteris paribus, the bank should provide long term loans only to high quality firms while low quality firms should only be able to obtain short term loans.*

Cronyism

This result can be overturned through the introduction of cronyism. A simple way to incorporate cronyism of the kind we have in mind into this framework is by assuming that a low quality firm which has crony ties to the bank pays a 'kickback' of α to the bank in period 0 in exchange for obtaining a long-term loan. It is easy to see that if α is large enough it can overturn the sign of D and thus lead the bank to agree to make such a loan even though the firm is of low quality. Again, with a view toward our empirical strategy we state this implication separately as follows.

Result 2: *In the presence of cronyism, firm quality may be disregarded in determining of loan maturity. In such an environment the bank may provide long term loans to poor quality firms.*

Soft Budget Constraints

Even though the bank finds it beneficial to make loans to low quality firms with which it has crony ties, since these are low quality firms, there is still a significant chance that the project will fail. The introduction of cronyism thus increases the probability of poor outcomes and the consequent need for bank bailouts. But if banks expect the government to bail them out in the event of financial distress then such practices will not have adverse consequences for the bank.

Thus, a soft-budget constraint at the government-bank level, implying that the government will bail-out the bank in the event of financial distress caused by long-term loans to poor quality projects, can filter down to the next level encouraging lax banking practices. This in turn will increase the likelihood of the poor outcome on the part of the firm. This could be formalized by grafting a game between the government and the bank on top of the game between the bank and the entrepreneur. Since this idea has been developed by the recent literature on the soft-budget constraint (SBC) problem of transition economies (see Dewatripont and Maskin (1995), Mitchell (1997), and Berglof and Roland (1998)) we do not reproduce the analytical details of the argument but recommend them to the interested reader.

4 Data and Empirical methods

4.1 Data Sources and Sample Characteristics

Our empirical strategy is geared toward investigating whether connections to financial intermediaries affect the likelihood of access to preferential sources of long term loans. Our sample contains data on 270 non-financial companies listed in the Stock Exchange of Thailand in 1996. The data were collected from multiple sources. Our main source of data is the Stock Exchange of Thailand. The database obtained directly from the Stock Exchange of Thailand is a comprehensive database which contains data on balance sheet and income statements for individual consolidated companies, equity ownership for both financial and non-financial companies and the board of directors.

This study is based on a unique database of ownership structure that enables us to trace ultimate ownership. The information used to trace the ultimate shareholders of private companies as well as family relationships between the major shareholders beyond their surnames is obtained from Document 56-1, which is available at the library of the Stock Exchange of Thailand. It contains detailed company information required for public disclosure by the Stock Exchange of Thailand. In addition, we have used the Business On Line (BOL) database published by the Business On Line Co., Ltd. to trace the ownership of private companies that is not disclosed in Document 56-1. This database contains the ownership of all limited companies in Thailand that were registered with the Ministry of Commerce. The BOL collected this information from the company's annual reports from the Ministry of Commerce filings.

Additional references for ownership structure and family relationships, especially those af-

filiated with big business groups are obtained from Manager Information Services (1996) and Brooker-Group (2002).

Our sample accounts for 97.08 percent of the market value of all non-financial firms. The characteristics of the companies in the sample are presented in Table 2. Panel A shows the number of companies in the sample classified by industry. The industry groupings follow the classification of the Stock Exchange of Thailand. Panel B presents descriptive statistics for companies in the sample. In general, companies in the sample are not just small or start-up companies. The average number of years since a firm was set up is 21.02 years. The sample includes both large companies and smaller size companies. The book value of total assets varies from a maximum of 179,785 million Baht (7191.40 million USD) to a minimum of 325.82 million Baht (13.03 million USD), with mean and median values of 7,140.71 million Baht (285.63 million USD) and 2,428.76 million Baht (97.15 million USD), respectively. Sales revenues and the market value of equity present a similar picture.

The ranking of companies in Thailand, published by Management Information Service (1996b) shows that this sample also includes large companies in Thailand.[6] Specifically, 22 companies in our sample appear in the 100 largest companies in Thailand in 1994. About 35.56 percent of companies in the sample are among the largest 500 companies in Thailand. Approximately 77.78 percent of our sample or 210 companies are in the top 2000 companies.

[Insert Table 2 Here]

4.2 Empirical Methods

In order to examine whether strong connections with banks and finance companies provide firms preferential access to long term loans, we use the standard corporate finance model of the determinants of debt maturity following Barclay and Smith (1995), Stohs and Mauer (1996) and Demirgüç-Kunt and Maksimovic (1999). Specifically, we estimate a measure of long term loans as a function of measures of crony relationship and control variables. As a proxy for long term loans, we use the ratio of long term borrowings from banks and finance companies to total debt. Total debt includes short term and long term debt from banks and other financial intermediaries, long term debt that is due in the current period, and debentures.

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[6]Management Information Service (1996b) lists the 2000 largest companies in Thailand in 1994. The ranking includes both publicly traded and private companies. This source of information is used because there is no similar information available for 1996, and it is the closest data available to 1996. The rankings based on 1994 data probably do not provide exact information for the companies in our sample. Nevertheless, the rankings do help to understand the characteristics of companies in our sample.

4.2.1 Crony relationship with banks

We analyze the scope of firm-bank connections that are established through the following two methods: Crony relationship, and the board of directors. Hereafter we use the word 'bank' as an abbreviation for financial institutions. It includes both banks and finance companies. We define a firm as being 'crony connected' to banks when the firm is owned by the country's most influential families. In other words, we believe that the country's most influential families are not only closely connected to each other but also to families that control banks[7]. As several authors have noted (Khanna (2000), Bongini et al. (2000) Chui et al. (2000) and (Fisman 2001)) in emerging market contexts, a country's influential families are known to be strongly connected to not only financial institutions but also the power structure . Thailand certainly is not an exception.

Close ties to banks benefit firms in several ways. For example, the strong relationships with banks often provide preferential treatment and easier access to funding. Weinstein and Yafeh (1998) find that Japanese manufacturing firms with strong bank relationships during the period 1977-86 tended to use more capital than independent firms in the same industry when their operating cash flow declined. There is extensive anecdotal evidence that strong ties with banks enable firms connected to influential families in Thailand to receive funding easily (see Section 2).

Close ties to banks also provide opportunities for firms to obtain economic rents created by various regulations. In many emerging economies, the government encourages banks to lend to big business groups or specific industries, such as in export oriented sectors. For example, in Thailand banks were dictated to provide lower than the market rate loans to the agri-business industry in the 1980s. Anecdotal evidence exists of firms with close ties with banks receiving most of these loans. In Korea until the end of the 1980s, banks were dictated by the government to lend to large family-owned business groups (*Chaebols*) at low interest rates. Lee et al. (1999) find that *Chaebol* affiliated firms are in fact more levered than stand alone firms.

The close ties that influential families have with politicians and bureaucrats are valuable to the controlling families since the ties lead to favorable treatment when they have financial difficulties. In Korea, the government has bailed out financially distressed *Chaebol* (Lee et al.

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[7]It is worth noted here that although in Thailand cronyism is founded on the linkages between the wealthy and influential families, bureaucrats, and politicians, the center of the cronyism is families that own banks or finance companies. This characteristics is, however, different from that of other Asian countries , e.g., Malaysia and Indonesia where the focus are the presidency.

(1999) and (Joh 2002)).

We define a family as being "influential" by their wealth. Similar to many emerging economies, in Thailand there is no official record on the ranking of business groups. We use the ranking of group firms in Thailand done by Suehiro (2000) to identify the country's most influential families. Suehiro ranks the families by summing up sales of their firms that appear in the largest thousand firms in 1994. For information on company affiliations, he uses Tara Siam Business Information (1996) and the database compiled from the Ministry of Commerce.

For the 'influential families' to be a good indicator of the strong connections with banks, the proxy for the 'influential families' should include the most well known and wealthy families. Accordingly, we define 'influential families' to be the owners of the 60 largest business groups[8]. The choice of 60 is arbitrary, however. The size of these business groups, measured by sales, ranges from 122, 039 million Baht to 6,241 million Baht (Suehiro (2000)).

We define firms as connected to these influential families if any of these families own at least a 10 percent stake in the firms [9]. As shown by the family names, business groups not only proxy strong political connections but also the close ties that the big business groups have with banks and finance companies. Our results show that 96 firms or 35.56 percent of firms in our sample are affiliated to these connected families. Among these families, the Crown Property Bureau, Lamsam, Rattanarak, Sophonpanit, Taechaphibun, and Wang Lee own and control banks, finance and insurance companies. In fact, they are also the founders of the banks. Except for the Crown Property Bureau, the controlling families of these banks have been involved in management as top executives. There are 31 firms which account for 11.48 percent of the sample where the controlling shareholders are the major shareholders of banks and finance companies (Table 3).

With respect to the connections with banks via the board of directors, we define the board connections in a similar manner to Kroszner and Strahan (2001a). Specifically, a firm has

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[8]These groups are owned by the following prominent families: Asakun, Assawaphokin, Bencharongkun, Bodharmik, Boonnamsap, Bulakul, Buraphachaisiri, Charnsiri, Charnwirakun, Chiarawanon, Chirathiwat, Choke Wattana, Chonwicharn, Chungrungruenkit, Chaiyawan, Chuturakun, the Crown Property Bureau, Darakanon, Damnoencharnwanit, Horruagruang, Kannasut, Khachanapat, Khanathanawanit, Konutakiat, Krisdathanont, Laohathai, Lamsam, Liaophairat, Lee-issaranukun, Lee-nutapong, Lee-sawattrakun, Osathanukhro, Phenchart, Pornprapha, Photirattanangkun, Phiromphakdi, Rattanarak, Sarasin, Sirimongkonkasem, Sophonpanit, Siriwattanapakdi, Srifuengfung, Sriwikorn, Suoson, Taechaphibun, Taephaisitphong, Tangmatitham, Thienprasidda, Uachukiat, Umput Wang Lee, Wiriyaprapaikit, Wattanawekin, Wiriyaphan, and Wongkusolkit.

[9]According to the Thai corporate law, with this level of shareholdings, a shareholder can control the firm in the following manner. He has the right to submit a motion to the court for the company's liquidation if, (i.) management fails to act in accordance with the provisions relating to payments of stock issuance and transferring of ownership, (ii.) the number of shareholders is less than 15, and (iii.) the company is in financial distress and has no possibility of recovering (see Stock Exchange of Thailand (1997) and Wiwattanakantang (2001b)).

connections with the bank board when at least one member of the firm's board serves on the boards of banks and finance companies or vice versa. Out of 270 firms in the sample, 186 firms or 68.89 percent of the sample have at least one incidence of the board connection with those of banks (Table 3). On average, these firms have connections with 1.79 banks, and the median number of banks that the firms connected with is two.

We investigate further in order to examine the close relationships with banks that are effected through board representation at different management levels. Our focus is on two management levels, namely executives and non executives. An executive is defined as someone who holds one of the following positions: chairman, honorary chairman, vice-chairman, president, vice-president, CEO or managing director, vice-CEO and vice managing director. Non-executives are other directors of the board.

Our results reveal that the board connection appears to be most frequent at the non-executive level, which accounts for about 36.30 percent of the firms. In 13 firms which accounts for 4.81 percent of our sample, the firm's board is connected with those of banks at the executives level. Finally, in about 28.15 percent of the firms, the board connections are via both the executive and non executive levels. We expect that top managers who are at the same time serving at the boards of banks are likely to make it easier for their companies to get long term loans.

[Insert Table 3 Here]

4.2.2   Control variables

Previous studies suggest since it is difficult to monitor firms due to a high degree of information asymmetry between insiders and outsiders, investors are likely to depend more on short term loans (Barclay and Smith (1995), Houston and James (1996), and Stohs and Mauer (1996)). Diamond (1991a) argues that low quality firms that have insufficient cash flows have no choice but to resort to short term debt. These firms are discouraged from using long term debt because they have low credit ratings, and hence bear higher interest costs. As low rated firms are not able to participate in the directly placed long-term debt market, they end up borrowing short term from intermediaries such as banks and finance companies.

From the creditor side, short-term financing facilitates monitoring by creditors. With a short-term loan contract, banks can review the firms decisions more frequently and, if necessary,

vary the terms of financing or liquidate the project before sufficient losses have accumulated to make default by the borrower optimal (Diamond (1991b) and Rajan (1992)). With a short-term loan contract, banks gain a degree of control and can maintain a stronger bargaining position when renewing the loan contracts (Rajan (1992)). By having the power to withdraw continued financing, banks can influence the firm's management decisions over investment policy. Also, shorter maturities limit the period over which an opportunistic firm can exploit its creditors without defaulting. In the worse case, with short term debt, banks can pull their capital out at any indication of trouble (Diamond and Rajan (2000)).

Following the literature, we include five variables to control for firm specific characteristics. First, we include the natural logarithm of assets (*Log (assets)*) as a measure of firm size. Size might be positively associated with reputation as well as the level of the firm specific information that is disclosed to public (Diamond (1991b)). Also, larger firms are likely to be more diversified and hence have less chance of going into financial distress than smaller firms. Further, larger firms tend to have easier access to other financial markets and institutions (Demirgüç-Kunt and Maksimovic (1999)). Accordingly, firm size is likely to be positively correlated with the level of long term debt.

Second, we include the ratio of the market to the book value of total assets (*M-B ratio*) as a proxy for future investment opportunities. The literature on debt maturity suggests that firms with high growth prospects are susceptible to both under and over investment problems. Short term debt might mitigate these problems since the debt contract comes up for negotiation before completion of the projects. Hence the creditors can monitor the operation and investment decisions of the firms. Thus we predict a negative relation between growth opportunities and long term debt.

Third, we also include the ratio of net fixed assets to total assets (*Fixed asset ratio*) in the model to capture the effect of collateral on the use of long term loans. The fixed asset ratio can also be used to control for the maturity matching effect on financial structure. Stohs and Mauer (1996) and Demirgüç-Kunt and Maksimovic (1999) argue that firms are more likely to choose debt maturity in order to match the maturity of borrowing with the maturity of their assets. Therefore, firms tend to need more long term funding to finance their investment in fixed assets.

Fourth, we include the standard deviation of the percentage changes in sales over the period 1991-1995 (*S.D. (sales 1992-95)*) to control for the volatility of earning. The volatility of earning

is positively related to the level of the asymmetric information problem the firm faces when trying to acquire long term loans. We expect that higher risk firms are likely to have difficulty obtaining long term debt.

Finally, we include a measure of leverage defined as the ratio of total liabilities to total assets to control for the probability of being in financial distress. Firms with high probability of default are likely to have a greater likelihood of financial troubles. These high default risk firms are likely to be have difficulty obtaining long term debt since creditors would require high interest rates for bearing the long term credit risk.

To capture the variation in borrowing decisions due to industry characteristics, we include 21 dummy variables. These 21 dummies represent firms in the 21 industries that are described in section 4.1. The remaining industry is the agribusiness industry.

5 Empirical Evidence

5.1 Univariate Analysis

Table 4 and Table 5 provide comparisons of mean and median values of financing structure and firms characteristics between firms with and without bank connections. Table 4 presents comparison between firms that are connected to the influential families and those that are not. Table 5 shows the comparison between firms that are connected to banks and finance companies through their boards of directors. As hypothesized, connected firms tend to have relatively more long term loans relative to non connected firms. Connected firms, however, appear to have significantly less short term loans when compared to non connected firms. As a result, both connected and non connected firms turn out to be similar in using overall debt. The mean and median values of total debt to asset ratios for both connected and non connected firms are not statistically significantly different.

We investigate further by testing whether differences in the use of long term loans between crony and non crony firms are attributable to the differences in the firm characteristics factors. Except that connected firms are significantly larger measured by assets and sales, connected and non-connected firms appear to be similar in terms of profitability, tangible assets, growth, and leverage. In other words, connected firms do not appear to be more profitable, have less tangible assets and are not less financially risky than non connected firms. Our results are in fact in line with La Porta et al. (2003) on Mexican firms. This preliminary investigation

provides some support for our conjecture that close relationships with financial institutions do matter in facilitating more long term lending. In the next section, we investigate this issue in more detail using multivariate analysis.

[Insert Table 4 here]

[Insert Table 5 Here]

5.2 Crony Relationships and Long Term Loans

We first analyze whether firms with close ties to banks and finance companies obtain relatively more long term loans. Table 6 contains the OLS regression results of the investigation on the effects of crony ties with banks measured by business groups on long term lending. In Specification (1), we present the regression results for all firms that are affiliated to the 60 influential families which is indicated by a dummy variable *Connected to influential families*. The dummy variable is one if the firm is owned by the 60 influential families documented in Section 4.2.1. The empirical evidence strongly supports the crony hypothesis that the close ties of personal and political favoritism provide greater access to long term borrowing from banks and finance companies. The coefficient estimates on *Influential families* are significantly positive at the 5 percent level.

As discussed earlier, a number of these influential families also own banks and finance companies. In order to investigate only the effects of crony relationships, we need to eliminate the ownership effects. We rerun the regressions and include two dummy variables that separately capture the ownership and the crony effects namely *Influential families with banks* and *Influential families without banks*. *Influential families with banks* indicates if the firm's major shareholder also owns at least one bank and finance company. *Influential families without banks* indicates if the firm's major shareholder does not own at least one bank and finance company. Results are shown in Specification (2).

The results show that all else being equal, affiliates of the influential families that are not the owners of banks access significantly more long term bank debt. This evidence implies that affiliates of the influential families probably benefit from their owners' connections with banks and finance companies. Surprisingly, firms affiliated to the influential families who control banks and finance companies and were widely thought of as being in a better position to get more loans do not appear to use more long term debt. In contrast, our findings suggest that owning

banks and finance companies does not make it easier for the owners to access more long term loans. This evidence is different from the Russian case as documented in Laeven (2001). A contributory factor to this findings would be the regulation on bank lending. Banks and finance companies are prevented from lending to the insiders by the Commercial Banking and Finance Company Law. Insider lending also includes lending to firms that are owned by insiders to the extent of more than 30 percent. Since these families own relatively concentrated shareholdings in their affiliated firms, lending to these firms would certainly violate the law. Besides, such lending practices can easily be checked since these firms are publicly traded.

[Insert Table 6 Here]

Regarding the effects of firm characteristics on the choices of long term borrowing, we find weak support for the hypothesis that firms with high agency costs are likely to use less long term bank debt. Somewhat surprisingly, the coefficient estimates associated with only two firm characteristics factors are significant. The coefficients on firm size and the fixed asset ratio are consistently significant at the conventional levels in all models. Other firm characteristics, however, are consistently insignificant.

These results indicate that firm size and type of assets do matter in extending debt maturity. Large firms have more access to long term loans probably because they have smaller information asymmetries or are more diversified. The results also suggest that firms may use their tangible assets as collateral to support long term loans.

However, besides size and tangible assets, other firm characteristics that are usually found to be empirically important determinants of debt maturity structure in more developed economies such as the U.S. do not appear to have any significant effect on long term borrowing of Thai firms.

5.2.1   How do crony relationships increase long term Loan?

In this section, we investigate how crony relationships work to enable firms to raise more long term loans. More precisely, we analyze whether the crony relationships overwhelm the effects of firm characteristics on the decisions of long term loans. For example, the debt maturity literature suggests that firms should match the maturity structures of their assets and financing, hence firms with less fixed assets should be associated with less long term loans. However, the fixed asset effect on the choices of long term loans might be attenuated or disappear if firms have

strong connections with banks. In this section, we attempt to shed light on these issues.

To test this issue, we need to simultaneously incorporate crony and firm characteristic variables. We re-estimate the regressions including the interaction terms between firm-bank connection variables and firm characteristics. The coefficient on a given interaction term measures how the relation between the choice of long term debt and the relevant firm characteristic differs for firms with and without close connections. If the crony relationships overwhelm the effects of firm characteristics on the decisions of long term loans, then the estimated coefficient on an interaction variable for a firm characteristic should be opposite in sign from the non-interaction term.

The results of the regression are presented in Table 7. In columns (1), (2), and (3), the firm characteristics are interacted with *Influential families*, *Influential families with banks*, and *Influential families without banks*. Overall, the results provide stronger support for the crony lending hypothesis. While the coefficients on the fixed asset ratio are positive and consistently significant at the 5 percent level in all regressions, the estimated coefficients on the interaction terms between the fixed asset ratio and the dummy variables indicating the effects of the influential families turn out to be significantly negative in Specification (1) and (3) (insignificant in Specification (2)). This evidence suggests that long term loans to non crony firms are always collateralized. This practice, however, does not apply for influential families, especially those who do not control banks. This finding is in line with the Mexican banks' lending practices found in La Porta et al. (2003).

These results could also suggest a different interpretation along the following lines. Firms owned by the influential families appear to misuse long term loans. Instead of being used to finance fixed assets as suggested, long term loan are used to finance short term assets in the firms that belong to the influential families that do not own banks.

The results of Specification (2), that show the effects of influential families that control financial institutions are also interesting. While default probability, measured by the liability to asset ratio, has no significant impact on the choice of long term debt for non crony firms, default probability does have positive effects in the case of firms connected to the influential families with ownership of banks. The coefficient on the interaction term between the crony firm dummy and the liability to asset ratio is strongly significant at the 5 percent level. However this is not the case for the firms connected to the influential families that do not control banks (Specification (3)).

Theoretically, firms with high default risk have incentives to use more long term loans to help them avoid being liquidated (Diamond (1991b)). Creditors, however, try to avoid lending to these firms. However, our results suggest that firms affiliated to the influential families that own banks appear to be able to use more long term debt despite facing a higher probability of being in financial troubles. The influential families might be able to direct toward themselves more long term loans probably because of the power that comes from controlling banks and finance companies.

Specification (2) also shows that among firms affiliated with the influential families that own banks, there is a negative and significant relationship between the proportion of long term lending and *M-B ratio*. We are not sure how to interpret this result. However it is inconsistent with the argument that close ties with banks established via both share and debt holdings mitigate the agency costs of debt as in Japan and the US. If banks do play an active role in corporate governance, a positive relationship between the measure of growth opportunities and the reliance of long term loans is expected. This is in fact the case in the US firms documented in Houston and James (1996).

[Insert Table 7 Here]

5.3 Board Connections and Long Term Loans

We explore how board connections affect long term lending in Table 8. Specification (1) focuses on the effect of the presence of any board connections between firms and banks. The ratio of number of positions on the board that are connected with banks to board size (*Board connections/board size*) captures this effect. The estimated coefficient on *Board connections/board size* is positive as expected and strongly significant.

We separate the board connections into three categories: Connections at the executive, non executive and both executive, non executive levels. The results in specification (2) show that preferential access to long term loans to firms appears only when firms have strong board connections with banks meaning that the connections have to be through both the executive and non executive levels.

We investigate further whether the positive relationship between board connections and the ratio of long term loans remains if we exclude firms that share common ultimate owners with banks. By excluding firms where their controlling shareholders own banks and finance

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companies, we are able to separate the effects of the crony relationship from the effects of the bank ownership. We repeat the regressions in Specification (1) and (2) but exclude 36 firms in which the major shareholders own financial institutions. The results are reported in Specification (3) and (4). Consistent with the previous findings, the results suggest that board connections both via executive and non executive levels are indeed beneficial to the firms. The connected firms seem to be able to obtain more long term loans.

To understand whether the board connections affect the long term lending practices via firm characteristics, we ran regressions using similar methodology in Table 7. None of the estimated coefficients on the interaction terms between the board connection variables and the firm characteristics appears to be statistically significant, however.

[Insert Table 8 Here]

6 Robustness Tests: The Determinants of Board Connections

To test the robustness of our findings, we investigate factors that determine the allocation of board connections. This is in order to determine whether the presence of board connections is a reflection of agency cost problems or is due to crony relationships. If the crony relationship affects the establishment of the board connections with banks, then our board connection variable is indeed a good proxy for the crony relationship.

Kroszner and Strahan (2001b) argue that the board connections might generate conflicts of interests between creditors and borrowing firms especially when the firms are facing financial difficulties. The basic statement of this view is that when the firms experience financial distress, either bankers who are sitting on the firms' boards or directors of the borrowing firms who are sitting on the banks' boards tend to act on behalf of the firms. They are likely to put pressure on banks to provide more loans to the firm. Since lending to troubled firms have a high probability of default, these lending practices may in turn bankrupt the banks. Hence, banks are less likely to have connections with unstable firms and more likely to establish connections with firms for whom the potential for conflicts is low. These firms are larger firms, with more tangible assets, are more stable in term of profitability, and have less leverage.

In contrast, the information view provides the opposite prediction. The firm-bank relationship literature suggests that banks can learn a substantial amount of information about their firm-customers via board representation. Besides, by sitting in a firm's board, banks might

be able to closely monitor the behavior of firm management and may even influence decisions made by the management. Since banks have such a wide access to private information about the firms, the information asymmetries as well as the moral hazard problem might be mitigated. Hence, this information view suggests that the benefits of board connections from both the firm and bank point of views depends on the potential information asymmetries and the agency costs of debt financing between the firms and banks. Consistent with this view, firms that have high agency costs and are difficult to monitor should have connections with banks. That is, smaller firms, firms with a lower proportion of tangible assets and less stable firms with stable profitability and higher fractions of leverage ratio are expected to be more likely to have the board connections with banks.

The crony view, however, leads to a different prediction. If the banking system is protected by implicit guarantees that provide insurance for banks from going bankrupt, the conflicts of interests between banks and borrowing firms might be softened. Fully recognizing that the government bears the costs of any financial distress, banks may build board connections with firms that are owned by their families and friends. In the extreme case, the connections might be established irrespective of firm characteristic factors. In other words, the crony view suggests that the crony relationships might overwhelm the effect of firm characteristics.

To explore this issue systematically, we follow the methodology used by Kroszner and Strahan (2001a and 2001b). We use a probit model in which the dependent variable is one if the firm has at least one person on its board serving on a bank's board or if the firm has a banker on its board. The probit regression results on the determinants of the incidence of the board connections are shown in Table 9. In Specification (1), we test how board connections vary with firm characteristics. The firm characteristics are the same set of variables described in Section 4.2. The reported results are the marginal effects of a one unit change from the mean of each independent variable on the probability of having a board connection with banks.

Our results are partially in line with those of Kroszner and Strahan (2001a and 2001b). Similar to the US banks, Thai banks also have the connections with larger firms. However, unlike the US, asset tangibility, growth and sale volatility are not related to the probability of having board connections. In addition, the connections are more prevalent for less indebted firms. Overall, these results somewhat support the conflict of interest argument and reject the information view.

Next, we investigate whether the existence of crony relationships as well as ownership of

banks contributes to the incidence of board connections. In Specification (2), we include two dummies representing firms that are owned by the two groups of the influential families: *Influential families with bank* and *Influential families without bank*. The estimated coefficients of these two dummy variables are strongly significant at the one percent level. The results show that connections are most prevalent among crony firms affiliated to these two groups of influential families. Further investigation on the data reveals that out of 65 firms that belong to the influential families that do not own banks, only 6 firms do not have a board connection. Firms that belong to the influential families who also own banks, however, are always connected to the boards of banks. In most of the cases, the persons who serve on the boards of banks and firms are the firms' controlling shareholders and their families.

Interestingly, once we control for the effects of crony relationships by including the two proxies of influential families, the incidence of board connections is hardly related to firm characteristics. Except the measure for firm's size, none of the estimated coefficients on the rest of the firm characteristics turn out to be statistically distinguishable from zero. These results are consistent with the crony view, and do not appear to support the information view.

We investigate further to check whether the effects of firm characteristics on the likelihood of having the board connections is attenuated for the case of crony firms. To absolutely distinguish the ownership effect from the crony effect, we examine firms that are affiliated to the influential families that do not own banks. We interact the variable *Influential families without bank* with the five firm characteristics. The results in Specification (3) show that when banks build a connection with non crony firms, banks appear to have board connections with larger firms. In contrast, banks seem to pay less attention to firm's size when they establish a connection with the crony firms. Banks appear to have connections with firms that are owned by influential families even if they are smaller.

To test the robustness of this findings, we drop 31 firms that are owned by the influential families that own banks from our sample and re-estimate the probit model. Our results remain the same (Specification (4) and (5)). In an unreported regression, we ran a test that controls for the size of the board. The regression was done by using the Tobit model, in which the dependent variable is the ratio of the number of persons from a firm's board who are serving on the boards of banks divided by the number of persons in the firm's board. Again, our results are robust in term of signs, statistical significance and magnitudes.

7 Conclusion

We have found that for Thai firms, the presence of close ties with banks and politicians – often referred to as 'cronyism' – was by far the most important factor in determining access to long term debt prior to the Asian Crisis of 1997-98, to the almost complete disregard of standard firm characteristics. While Thailand provides perhaps the best laboratory for the testing of the cronyism hypothesis in the shadow of the crisis, we are inclined to believe similar results might be found in many other emerging economies.

In the wake of the crisis it is easy to implicate such practices. And probably with good cause. However, it is perhaps meaningful to ask why such practices existed in the first place, and whether they played a role in insulating and facilitating these economies during their earlier periods of rapid growth. It is useful to juxtapose these ideas with the recent arguments of Diamond and Rajan (2000c) on banks, short-term debt and financial fragility. They argue that countries with poor disclosure rules and inadequate investor protection will be expected to have limited long-term debt capacity. Consequently they are forced to rely excessively on short-term debt, which in turn causes them to be financially fragile and prone to crises. Could then soft-budget constraints and associated crony practices serve a useful purpose at a low level of institutional (under)development and become obsolete as the economy develops further? This seems to be an important question needing further research.

References

Anuchitworawong, Chaiyasit, Toshiyuki Soma, and Yupana Wiwattanakantang, 2002, Family ownership of financial institutions: Thailand during the pre and post crisis, mimeo.

Barclay, Michael J., and Clifford W. Smith, 1995, The marturity structure of corporate debt, *Journal of Finance* 40, 609–631.

Berglof, Erik, and Gerard Roland, 1998, Soft budget constraints and banking in transition economies, *Journal of Comparative Economics* 26, 18–40.

Bongini, Paola, Stijn Claessens, and Giovanni Ferri, 2000, The political economy of distress in East Asian financial institutions, Working paper 2265, World Bank, Washington DC.

Brooker-Group, 2002, *Thai Business Groups 2001: A Unique Guide to Who Owns What* (The Brooker Group Plc, Bangkok, Thailand).

Bualek, Pannee, 2000, *The analysis on the major owners of Thai banks during 1932-1973* (Siam Publisher, Bangkok, Thailand), second edition, in Thai.

Chui, Andy, Sheridan Titman, and K.J. Wei, 2000, Corporate groups, financial liberalization and growth: The case of Indonesia, memio.

Corsetti, Giancarlo, Paolo Pesenti, and Nouriel Roubini, 1998a, What caused the asian currency and financial crisis? Part I: A macroeconomic overview, Working paper 6833, National Bureau of Economic Research, Cambridge, MA.

Corsetti, Giancarlo, Paolo Pesenti, and Nouriel Roubini, 1998b, What caused the Asian currency and financial crisis? Part II: The policy debate, Working paper 6834, National Bureau of Economic Research, Cambridge, MA.

Demirgüç-Kunt, Asli, and Vojislav Maksimovic, 1999, Institutions, financial markets, and the firm debt maturity, *Journal of Financial Economics* 54, 295–336.

Dewatripont, Mathias, and Eric Maskin, 1995, Credit and efficiency in centralized and decentralized economies, *Review of Economic Studies* 62, 541–555.

Diamond, Douglas W., 1991a, Debt maturity and liquidity risk, *Quarterly Journal of Economics* 106, 709–737.

Diamond, Douglas W., 1991b, Monitoring and reputation: The choice between bank loans and directly placed debt, *Journal of Political Economy* 99, 689–721.

Diamond, Douglas W., and Raghuram G. Rajan, 2000, Banks, short term debt and financial crises: Theroy, policy implications and applications, mimeo.

Fisman, Raymond, 2001, Estimating the value of political connections, *American Economic Review* 91, 1095–1102.

Hewison, Kevin, 1989, *Bankers and bureaucrats: Capital and the Role of the State in Thailand* (Yale Center for International and Area Studies, New Haven, CT).

Houston, Joel, and Christopher James, 1996, Bank information monopolies and the mix of private and oublic debt claims, *Journal of Finance* , 1863–1889.

Joh, Sung Wook, 2002, Corporate governance and profitability: Evidence from Korea before the economic crisis, *Journal of Financial Economics* , forthcoming.

Johnson, Simon, Peter Boone, Alasdair Breach, and Eric Friedman, 2000, Corporate governance in the Asian financial crisis, *Journal of Financial Economics* 58, 141–186.

Johnson, Simon, and Todd Mitton, 2001, Cronyism and capital controls: Evidence from Malaysia, Working paper 8521, National Bureau of Economic Research, Cambridge, MA.

Johnston, Barry R., 1991, Distressed financial institutions in thailand: Structural weaknesses, support operations, and economic consequences.

Khanna, Tarun, 2000, Business groups and social welfare in emerging markets: Existing evidence and unanswered questions, *European Economic Review* 44, 748–761.

Kroszner, Randell S., and Philip E. Strahan, 2001a, Bankers on boards: Monitoring, conflicts of interest and lender liability, *Journal of Financial Economics* , 415–452.

Kroszner, Randell S., and Philip E. Strahan, 2001b, Throwing good money after bad? Board connnections and conflicts in bank lending, Working paper 8694, National Bureau of Economic Research, Cambridge, MA.

Krugman, Paul, 1998, What happened to Asia?, memio.

La Porta, Rafael, Florencio Lopez de Silanes, and Guille rmo Zamarripa, 2003, Related lending, *Quarterly Journal of Economics* 118, forthcoming.

Laeven, Luc, 2001, Insider lending and bank ownership: The case of Russia, *Journal of Comparative Economics* 29, 207–229.

Laird, John, 2000, *Money Politics, Globalisation, and Crisis* (Graham Brash Pte Ltd, Singapore).

Lee, Jong-Wha, Yound Soo Lee, and Byung-Sun Lee, 1999, The determination of corporate debt in korea, Disscusion Paper No. 718, Harvard Institute for International Development.

Manager Information Services, 1996, *Listed Companies Hand Book 1996* (Eastern Printing, Bangkok, Thailand).

Mitchell, Jenet, 1997, Strategic creditor passivity, regulation and bank bailouts, Disussion paper 1780, Centre for Economic Policy Research, London, UK.

Morck, Randall, David A. Strangeland, and Bernard Yeung, 1998, Inherited wealth, corporate control and economic growth: The Canadian disease?, Working paper 6814, National Bureau of Economic Research, Cambridge, MA.

Nation Multi Media Group, 1997, The Nation.

Nukul, Prochuabmoh, 1998, *Analysis and Evaluation of Facts behind Thailand's Economic Crisis* (Nation Multimedia Group, Bangkok, Thailand).

Pomerleano, Michael, 1998, The East Asia crisis and corporate finances: The untold micro story, World Bank Policy Research Working Paper, Washington, D.C.

Rajan, Raghuram G., 1992, Insiders and outsiders: The choice between relationship and arms-length debt, *Journal of Finance* 47, 1367–1400.

Stock Exchange of Thailand, 1997, *The Stock Market in Thailand 1997*.

Stohs, Mark H., and David C. Mauer, 1996, The determinants of corporate debt maturity structure, *Journal of Business* 69, 279–312.

Suehiro, Akira, 2000, The data and analysis of Thai large corporatations: State owned companies, multinational companies and business groups, Mimeo, Institute of Social Science, University of Tokyo, in Japanese.

Thanapornpun, Rangsun, 1999, *Financial Crisis and Financial Sector in the Thai Economy*, volume second (Kopfai Publishing Project, Bangkok, Thailand), in Thai.

Weinstein, David, and Yishay Yafeh, 1998, Costs of a bank-centered financial system, *Journal of Finance* 53, 635–671.

Wesaratchajakit, Worawut, 2002, The future of deposit insurance system in Thailand, *Bank of Thailand Quarterly Bulletin* 42, 53–59.

Wiwattanakantang, Yupana, 2001a, Controlling shareholders and corporate value: Evidence from Thailand, *Pacific-Basin Finance Journal* 9, 323–362.

Wiwattanakantang, Yupana, 2001b, The equity ownership structure of Thai firms, Working paper, Center for Economic Institutions, Institute of Economic Research, Hitotsubashi University, Tokyo, Japan.

Table 1: The Thai Financial System

The information of this table is obtained from the Bank of Thailand. Panel A presents non performing loans held by each category of financial institutions. Panel B presents the number of financial institutions over the period of 1996-2001. Non performing loans and the number of financial institutions are measured at the end of each year. Non performing loan is a loan that has stopped payment on principal and interest for at least 3 months. Financial institutions are classified by the ownership following the definition of the Bank of Thailand. They include both publicly and non publicly traded financial institutions.

Panel A: Non performing loans

Financial Institution	1997	1998	1999	2000
1. Total commercial banks	19.77	45.02	38.57	17.70
1.1 Private banks (domestic)	19.36	40.48	30.59	18.00
1.2 State owned Banks	29.33	62.45	62.84	21.63
1.3 Foreign banks	1.87	9.81	9.94	6.60
2. Finance companies	33.28	70.16	49.22	24.48

Panel B: Number of financial institutions during 1996-2000

Financial Institution	1996	1997	1998	1999	2000	2001
Domestic private banks	14	14	9	9	9	9
State owned banks	1	1	4	4	4	4
Foreign banks	14	14	13	20	20	17
Finance companies	91	35	36	21	20	20
Total	120	64	62	54	53	50

Table 2: Sample Description

This table presents characteristics of 270 companies in the sample. The sample consists of non-financial companies listed in the Stock Exchange of Thailand in 1996. Accounting data is for consolidated companies, obtained from the Stock Exchange of Thailand.

Panel A: Companies in the sample, classified by industries

Industry	No. of companies
Agribusiness	28
Building materials	29
Chemicals and plastics	11
Commerce	12
Communication	10
Electrical products and computer	9
Electrical components	5
Energy	5
Entertainment and recreation	6
Food and beverages	20
Health care services	12
Hotel and travel services	9
Household goods	5
Machinery and equipment	5
Packaging	16
Printing and publishing	9
Property development	29
Pulp and paper	5
Textile	20
Transportation	6
Vehicles and parts	8
Others	11
Total	270

Panel B: Descriptive Statistics for the Sample

	Mean	Median	Max	Min
Book value of total assets	7,140.71	2,428.76	179,785	325.81
Sales	3,531.52	1,544.03	107,273.01	11.31
Market value of equity	4,485.53	926.94	118,930.5	47.20
M-B ratio	1.175	0.975	4.940	0.250
Fixed asset ratio	0.419	0.388	0.935	0.011
Number of years incorporated	21.02	17	120	2

Note: Values are in million Baht.

Table 3: Sample Frequency Distribution on Firm with Connections

This table provides the frequency distribution of the sample with respect to firm-bank connections. The *Percentage* column presents the percentage of firms with one specific type of connection to total number of firms in the sample. The number of firms in the sample is 270.

Type of the firm-bank connections	Frequency	Percentage
I. Connections with the influential families		
1. Firms with the connections	96	35.56
1.1 Families that own financial institutions	31	11.48
1.2 Families that do not own financial institutions	65	24.07
2. Firms with no connection	174	64.44
II. Board connections with financial institutions		
1. Firms with the connections	187	69.26
1.1 Executive level	13	4.81
1.2 Non executive level	98	36.30
1.3 Both executive and non executive levels	76	28.15
2. Firms with no connection	83	30.74

Table 4: Financing and Firm characteristics: Connected to Influential Families

This table presents mean and median values for a set of firm characteristics, as measured in 1996. The data includes 96 and 174 firms that are connected and not connected to the country's most influential families, respectively. *S-T loans* is short term borrowing from banks and finance companies. *L-T loans* is long term borrowing from banks and finance companies. *S-T portion of L-T debt* is long term debt that is due in this period. *Total debt* is the summation of *S-T bank loans*, *L-T bank loans*, *S-T portion of L-T debt* and debentures. *EBIT/total assets* and *EBIT/sales* are the ratio of earnings before interest and taxes to total assets and sales, respectively. *M-B ratio* is the ratio of the market to the book values of total assets. *Fixed asset ratio* is the ratio of net fixed assets to total assets. *S.D.(sales)* is the S.D. of the percentage changes in sales over the period 1991-1995. *Sale growth* is the average annual growth in sales over the period 1992-96. *Age* is the number of years since incorporation. Total assets and sales are in million Baht. Mean and median differences are tested using the *t*-test and the Wilcoxon signed rank test, respectively. *, **, *** indicate statistically significant difference when compared with connected firms at the 10, 5 and 1 percent levels, respectively.

	Mean		Median	
	Connect	Not connect	Connect	Not connect
Financing Structure				
Total liabilities/total assets	0.566	0.539	0.596	0.561
total debt/total assets	0.398	0.411	0.425	0.437
S-T loan/total assets	0.175	0.247***	0.142	0.222***
S-T portion of L-T loans/total assets	0.043	0.035	0.028	0.021
Debentures/ Total assets	0.023	0.023	0.000	0.000
Long-term loans / Total assets	0.157	0.107***	0.122	0.069**
Trade credit/total assets	0.083	0.066*	0.063	0.048*
Debt maturity structure				
S-T loan/total debt	0.505	0.629***	0.484	0.687***
S-T portion of L-T loans/total debt	0.101	0.08	0.076	0.053
Debentures/total debt	0.046	0.042	0.000	0.000
L-T loans / Total debt	0.347	0.248***	0.294	0.173**
Firm characteristics				
Total assets	13,605.2	3,574.01***	4,886.8	1,902.9***
Sales	6,222.1	2,047***	2,617.8	1,265.8***
EBIT/assets	0.048	0.040	0.042	0.045
EBIT/sale	0.062	0.035	0.069	0.065
M-B ratio	1.183	1.171	0.962	0.985
Fixed asset ratio	0.409	0.425	0.369	0.402
Cash/asset	0.015	0.028**	0.007	0.014***
Liquid asset ratio	0.428	0.462	0.418	0.476
Sale growth	0.340	0.248*	0.136	0.181
S.D (sale 1991-1995)	0.486	0.334*	0.155	0.182
Age	24.250	19.236**	18.500	16.500**

Table 5: Financial and Firm Characteristics: Board Connections

This table presents mean and median values for a set of firm characteristics, as measured in 1996. The data includes 187 firms that have at least one board member has a seat on the board of a bank, and 83 firms that have no such connection. *S-T loans* is short term borrowing from banks and finance companies. *L-T loans* is long term borrowing from banks and finance companies. *S-T portion of L-T debt* is long term debt that is due in this period. *Total debt* is the summation of *S-T bank loans*, *L-T bank loans*, *S-T portion of L-T debt* and debentures. *EBIT/total assets* and *EBIT/sales* are the ratio of earnings before interest and taxes to total assets and sales, respectively. *M-B ratio* is the ratio of the market to the book values of total assets. *Fixed asset ratio* is the ratio of net fixed assets to total assets. *S.D.(sales)* is the S.D. of the percentage changes in sales over the period 1991-1995. *Sale growth* is the average annual growth in sales over the period 1992-96. *Age* is the number of years since incorporation. Total assets and sales are in million Baht. Mean and median differences are tested using the *t*-test and the Wilcoxon signed rank test, respectively. *, **, *** indicate statistically significant difference when compared with connected firms at the 10, 5 and 1 percent levels, respectively.

	Mean		Median	
	Connect	Not connect	Connect	Not connect
Financial characteristics				
Total liabilities/total assets	0.554	0.536	0.580	0.563
Total debt/total assets	0.405	0.409	0.433	0.428
S-T loans/total assets	0.201	0.266***	0.167	0.262***
S-T portion of L-T loans/total assets	0.039	0.033	0.025	0.018*
Debentures/ Total assets	0.027	0.015	0.000	0.000
L-T loans / Total assets	0.138	0.095**	0.106	0.061**
Trade credit/total assets	0.071	0.074	0.045	0.056
Debt maturity structure				
S-T loans/total debt	0.544	0.677***	0.578	0.760***
S-T portion of L-T loans/total debt	0.095	0.071*	0.067	0.043**
Debentures/total debt	0.048	0.032	0.000	0.000
L-T loans / Total debt	0.312	0.22**	0.28	0.41**
Firm characteristics				
Total assets	9,192.3	2,517.8***	3,381.8	1,512.7***
Sales	4,261.6	1,886.7**	1,758.7	1,209.3***
EBIT/total assets	0.046	0.036	0.042	0.048
EBIT/sale	0.048	0.037	0.070	0.062
M-B ratio	1.190	1.140	0.973	0.977
Fixed asset ratio	0.406	0.449	0.367	0.422*
Cash/asset	0.021	0.029*	0.009	0.017***
Liquid asset ratio	0.443	0.466	0.456	0.462
Sale growth	0.305	0.226	0.162	0.166
S.D. (sale 1991-95)	0.434	0.284*	0.175	0.152
Age	21.107	20.819	17	17

Table 6: Influential Familiy Regression

The regression is based on a sample of 270 publicly traded firms in 1996. The dependent variable is long-term loans divided by total debt. *Connected to influential families* indicates if the firm is owned by one of the 60 largest business groups. *Influential families with banks* indicates if the firm's major shareholder also owns at least one financial institution. *Influential families without banks* indicates if the firm's major shareholder does not own a financial institution. *M-B ratio* is the ratio of the market to the book values of total assets. *Fixed asset ratio* is the ratio of net fixed assets to total assets. *S.D. (sales 91-95)* is the S.D. of the percentage changes in sales over the period 1991-1995. The regression method is the *OLS*. Each specification includes a set of 21 industry dummies but the results are suppressed. Robust standard errors are shown in parentheses. *, **, *** indicate significance at the 10, 5 and 1 percent levels, respectively.

Independent Variable	(1)	(2)
Conneted with influential families	0.0780**	
	(0.035)	
Influential families with banks		0.068
		(0.053)
Influential families without banks		0.083**
		(0.040)
Log (asset)	0.058***	0.059***
	(0.015)	(0.015)
M-B ratio	-0.005	-0.006
	(0.023)	(0.023)
Fixed asset ratio	0.281**	0.282**
	(0.112)	(0.113)
Total liabilities /asset	0.023	0.023
	(0.097)	(0.097)
S.D. (sales 1991-95)	-0.021	-0.022
	(0.020)	(0.020)
Intercept	-0.763***	-0.766***
	(0.210)	(0.212)
F-statistic	7.050	6.83
Prob (F-statistic)	0.000	0.00
Adjusted R-squared	0.356	0.357
N	270	270

Table 7: The Interaction between Crony Variable: Influential Familiy Regression

The regression is based on a sample of 270 publicly traded firms in 1996. The dependent variable is long-term loans divided by total debt. *Influential family* indicates if the firm belongs to one of the 60 largest business groups. *Influential family with banks* and *Influential families without banks* indicate if the firm's major shareholder also owns, and does not own at least one financial institution, respectively. *M-B ratio* is the ratio of the market to the book values of total assets. *Fixed asset ratio* is the ratio of net fixed assets to total assets. *S.D. (sales 91-95)* is the S.D. of the percentage changes in sales over the period 1991-1995. In column (1), (2), and (3), the firm characteristics are interacted with *Influential family*, *Influential family with banks*, and *Influential family without banks*, respectively. The regression method is the *OLS*. Each specification includes a set of 21 industry dummies but the results are suppressed. Robust standard errors are shown in parentheses. *, **, *** indicate significance at the 10, 5 and 1 percent levels, respectively.

Independent Variable	Influential family (1)	With banks (2)	Without banks (3)
Crony * Log (asset)	0.002	-0.019	0.010
	(0.030)	(0.031)	(0.033)
Crony * M-B ratio	0.016	-0.265***	0.049
	(0.049)	(0.092)	(0.052)
Crony * Fixed asset ratio	-0.343**	-0.159	-0.349*
	(0.151)	(0.181)	(0.183)
Crony * Total liabilities /asset	0.253	0.825**	0.035
	(0.221)	(0.327)	(0.244)
Crony * S.D. (sales 1991-95)	0.035	0.087	-0.012
	(0.041)	(0.080)	(0.045)
Log (asset)	0.058***	0.059***	0.060***
	(0.022)	(0.018)	(0.017)
M-B ratio	-0.007	0.006	-0.020
	(0.028)	(0.024)	(0.028)
Fixed asset ratio	0.405***	0.281**	0.374***
	(0.135)	(0.117)	(0.125)
Total liabilities /asset	-0.019	-0.031	0.031
	(0.108)	(0.098)	(0.110)
S.D. (sales 1991-95)	-0.044	-0.031	-0.013
	(0.030)	(0.020)	(0.035)
Influential family	0.016		
	(0.428)		
Influential family with banks		0.208	0.058
		(0.416)	(0.054)
Influential family without banks		0.088 **	-0.005
		(0.040)	(0.481)
Intercept	-0.785**	-0.755***	-0.813***
	(0.323)	(0.261)	(0.244)
F-statistic	6.530	6.53	6.560
Prob (F-statistic)	0.000	0.00	0.000
Adjusted R-squared	0.375	0.389	0.372
N	270	270	270

Table 8: Board Connection Regression

The regression is based on a sample of 270 publicly traded firms in 1996. The dependent variable is long-term loans divided by total debt. *Board connections* indicates whether there exits at least one member from the board of banks in the firm board. *Bankers as executives* and *Bankers as non executives* are dummy variables, taking the value of 1 if there exits at least one member from the board of banks acting as top executive and non executive of the firm, respectively. *M-B ratio* is the ratio of the market to the book values of total assets. *Fixed asset ratio* is the ratio of net fixed assets to total assets. *S.D. (sales 92-95)* is the S.D. of the percentage changes in sales over the period 1991-1995. The regression method is the *OLS*. Each specification includes a set of 21 industry dummies but the results are suppressed. Robust standard errors are shown in parentheses. *, **, *** indicate significance at the 10, 5 and 1 percent levels, respectively.

| Independent Variable	(1)	(2)	(3)	(4)
Board connections/Board size	0.215**		0.293***	
	(0.109)		(0.118)	
At both executive and non executive levels		0.107***		0.129***
		(0.041)		(0.045)
At executive level		-0.006		0.012
		(0.077)		(0.082)
At non executive level		0.032		0.024
		(0.034)		(0.036)
Log (asset)	0.059***	0.050***	0.058***	0.049***
	(0.015)	(0.016)	(0.018)	(0.018)
M-B ratio	-0.005	-0.002	0.008	0.013
	(0.024)	(0.024)	(0.024)	(0.024)
Fixed asset ratio	0.266**	0.304***	0.240**	0.285**
	(0.114)	(0.108)	(0.126)	(0.118)
Total liabilities /asset	0.022	0.047	-0.017	0.003
	(0.094)	(0.098)	(0.095)	(0.100)
S.D. (sales 1991-95)	-0.016	-0.019	-0.021	-0.027
	(0.020)	(0.022)	(0.019)	(0.022)
Intercept	-0.763***	-0.677***	-0.724***	-0.645***
	(0.217)	(0.222)	(0.268)	(0.265)
F-statistic	7.13	6.90	7.940	7.740
Prob (F-statistic)	0	0.00	0.000	0.00
Adjusted R-squared	0.351	0.362	0.365	0.358
N	270	270	234	234

Table 9: The Determinants of Board Connections

The estimation method is Probit. The coefficients presented are the marginal effects of a one unit change from the mean of each independent variable on the probability of having a board connection with banks. The independent variable is one if the firm has at least one member from the board of banks acting as director or top executive of the firm, has at least one person on its board sitting on those of banks in 1996, and zero otherwise. Mean of the dependent variable is 0.69. *M-B ratio* is the ratio of the market to the book values of total assets. *Fixed asset ratio* is the ratio of net fixed assets to total assets. *Influential families with banks* indicates if the the firm belongs to one of the 60 largest business groups and its major shareholder also owns at least one bank and finance company. *Influential families without banks* indicates if the firm belongs to one of the 60 largest business groups and its major shareholder does not own bank. *S.D. (sales 91-95)* is the S.D. of the percentage changes in sales over the period 1991-1995. The regression method is the *OLS*. Each specification includes a set of 21 industry dummies but the results are suppressed. Robust standard errors are shown in parentheses. *, **, *** indicate significance at the 10, 5 and 1 percent levels, respectively.

Independent Variable	(1)	(2)	(3)	(4)	(5)
Log (asset)	0.163 ***	0.134 ***	0.170 ***	0.134 ***	0.172 ***
	(0.036)	(0.036)	(0.051)	(0.042)	(0.058)
M-B ratio	0.024	0.035	0.026	0.040	0.047
	(0.051)	(0.049)	(0.045)	(0.055)	(0.052)
Fixed asset ratio	-0.130	-0.126	-0.022	-0.126	-0.028
	(0.168)	(0.167)	(0.147)	(0.189)	(0.171)
Total liabilities/asset	-0.367 *	-0.280	-0.416 **	-0.267	-0.368 *
	(0.212)	(0.206)	(0.206)	(0.235)	(0.227)
S.D. (sales 1991-95)	0.049	0.043	0.022	0.062	0.024
	(0.062)	(0.068)	(0.062)	(0.081)	(0.077)
Influential families without banks		0.266 ***	0.988 ***	0.318 ***	0.996 ***
		(0.053)	(0.030)	(0.065)	(0.012)
Influential families with banks		0.277 ***			
		(0.043)			
Crony * Log (asset)			-0.238 ***		-0.238 ***
			(0.079)		(0.087)
Crony * M-B ratio			-0.052		-0.075
			(0.110)		(0.122)
Crony * Fixed asset ratio			-0.156		-0.116
			(0.341)		(0.382)
Crony * Total liabilities /asset			0.516		0.390
			(0.504)		(0.550)
Crony * S.D. (sales 1991-95)			0.996		1.004
			(0.463)		(0.519)
Prob > Chi-squared	0.00	0.00	0.00	0.00	0.00
Pseudo R squared	0.150	0.22	0.22	0.19	0.23
N	270	270	270	234	234

Investment made
Effort exerted

State realized
Short-term loans mature

Long-term loans mature
Assets depreciate to zero

0

1

2
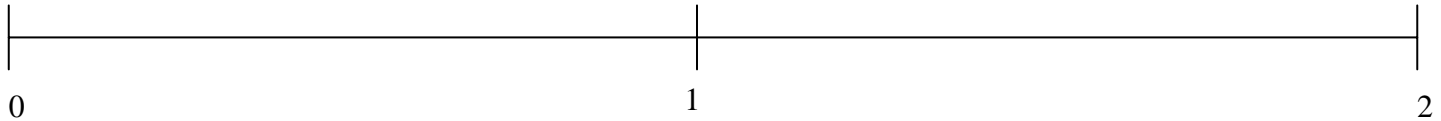
Crony payments made

Unsuccessful projects liquidated

In SBC regimes with
Cronyism, bank bailouts occ

Timing of Events