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Crony Capital? Corporate Debt Maturity in Thailand Before the Financial Crisis

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CRONY CAPITAL? CORPORATE DEBT MATURITY IN THAILAND BEFORE THE FINANCIAL CRISIS

Abstract

The allocation of credit by banks and finance companies 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 and finance companies, which in turn percolated down to firms having “crony” ties to banks or finance companies as “soft-budget constraints” for projects of uncertain quality. Such soft-budget constraints should be reflected in preferential access to long term credit for firms with close ties to banks or finance companies. Using pre-crisis data on borrowing patterns in Thailand, we find that firms with “crony” ties to banks or finance companies 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 played almost no role in explaining the allocation of long term credit. 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 market-driven system that mainly characterized the developed economies of Western Europe and North America. One influential view of the crisis (Krugman, 1998, Corsetti et al., 1998a, and Pomerleano, 1998) goes as far as to suggest that the crisis had its origins in the allocation of credit by banks and finance companies (B&Fs henceforth) 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. While cronyism is anecdotally accepted as an endemic feature of emerging economies, empirical work linking close ties to preferential finance is scant. 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 wave of serious speculative attacks on its currency since the beginning of 1997. The Thai baht was devalued 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 that this was not surprising, since Thailand was the country with the shakiest macroeconomic 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 B&Fs due to an accumulation of bad loans. This last feature is of particular interest in the context of this study because the accumulation of bad loans prior to the crisis has been mainly attributed to moral hazard arising from bail-out guarantees that the government implicitly provided to B&Fs. Corsetti et al. (1998b) describe an example that makes this clear and is worth reproducing.

Although most of the evidence is anecdotal, the analysis of a few cases can shed light on more general behavioral patterns. The best known is the case of Finance One, the largest Thai finance company, which collapsed in May 1997. A few months before Finance One's collapse, ING Bank in Thailand had approved a loan to the company as part of a US\$160 million syndication led by the World Bank's International Finance Corporation. According to ING sources, concerns about the viability of Finance One were simply dismissed by the Bank of Thailand, which made explicit reference to a promise of bail-out in case the company had financial problems.¹ By the late summer of 1997, however, the Bank of Thailand found such bail-out promises unsustainable and eventually 56 finance companies went bankrupt and were forced to close.

Discussions of cronyism in finance in the wake of the Asian financial crisis suggest that B&Fs often extend preferential finance to projects of dubious quality

promoted by their friends or relatives because B&Fs obtain private benefits from such projects if they succeed and do not lose if the projects fail, since they expect to be bailed out by the government in such circumstances. This implicit guarantee by the government weakens bank/finance incentives to monitor and liquidate poor quality projects. Weak incentives on the part of the bank/finance filter down to the level of the firm, and the firm in turn often does not have incentives to exert high levels of effort and avoid project failure because it expects to be refinanced by the bank/finance on account of its close ties. Ideally, the government would like to avoid this “soft-budget constraint” situation by monitoring B&Fs more strictly, which in turn would cause the B&Fs to monitor firms more closely and prevent long-term refinancing of bad projects. However, 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 regulation prevents long-term financing to non-crony firms, B&Fs may still find it worthwhile to extend such financing to crony firms. We present a simple analytical framework along these lines in appendix in order to ground our empirical approach to the issue.

Our empirical methodology attempts to examine whether firms with crony ties to banks or finance companies 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 50 largest Thai business groups, and the presence of bankers or financiers 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 standard firm characteristics that the current literature on firm financing suggests should be important in explaining easier access to debt play no significant role at all. We suggest these results lend strong support to the hypothesis that cronyism was the most important factor determining access to long-term debt prior to the financial crisis.

The next section of the paper describes our empirical methodology. Section 3 discusses our empirical results. Section 4 concludes.

2. Empirical Methodology

To examine whether the strong ties between B&Fs and firms provide the firms preferential access to long-term credit, we use the standard model of the determinants of debt maturity decisions. Following Barclay and Smith 1995, debt maturity structure is defined as the ratio of long-term debt to total debt. Long-term debt is long-term borrowings from B&Fs. Total debt includes short-term borrowings from B&Fs, long-term debt that is due in the current period (our data is from 1996), debentures, and long-term debt.

In our regressions, in order to investigate the effects of close connections between firms and B&Fs on debt maturity, we introduce a number of crony variables as well as control variables suggested by literature. In the following section we discuss the effects of crony variables as well as firm characteristics on the choice of the mix of short-term and long-term debt.

2.1 Crony variables

We define cronyism as the close connections between companies and B&Fs. We test whether these firm-bank/finance ties ensure them better access to long-term debt. These close relationships are proxied by the following 3 measures:

2.1.1 Business groups

Business groups are often regarded as being closely connected to the power structure and providers of funding (Morck et al., 1998, Khanna, 2000, and Chui et al., 2000). Close ties to banks or finance companies benefit firms in several ways. For example, the strong relationships with B&Fs might provide preferential treatment and more 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.

Close ties to banks or finance companies also provide opportunities for firms to obtain economic rents created by various regulations. In many emerging economies, the government encourages B&Fs to lend to big business groups or

specific industries, such as in export oriented sectors. For example, in Thailand banks were required to provide lower than the market rate loans to agri-business industry in the 1980s. There is anecdotal evidence that firms with close ties with banks or finance companies received most of these loans. In Korea until the end of the 1980s, the government required banks 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 leveraged than stand alone firms.

The close ties that business groups have with politicians and bureaucrats are valuable to the controlling families since the ties might provide them favorable treatments when having financial difficulties. In Korea, the government has bailed out financially distressed *Chaebol* (Lee et al., 1999).

We use the ranking of group firms in Thailand done by Suehiro (2000) to select business groups. This ranking is based on sales in 1994. Suehiro (2000) collected accounting and ownership data of companies in each group from the Ministry of Commerce. In addition to the database compiled from the Ministry of Commerce, he used Tara Siam Business Information (1996) as a reference for additional information on company affiliations.

For the business group measure to be a good indicator of the strong connections between firms and B&Fs, the group proxy should include the most well known and wealthy groups. Accordingly, our business group measure includes those that are among the 50 largest groups. The choice of 50 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). Among these top 50 largest groups, there are 3 groups (Krung Thai Bank, Thai Airways, and PTT) that are government owned. We separate government owned firms into another category, which will be discussed later. The remaining 47 groups are owned by the following prominent families: Asakun, Assawaphokin, Bencharongkun, Buraphachaisiri, Charnsiri, Charnwirakun, Chirathiwat, Choke Wattana, Chonwicharn, Chungrunguenkit, Chaiyawan, Chuturakun, the Crown Property Bureau, Darakanon, Dammoencharnwanit, Kannasut, Khachanapat, Khanathanawanit, Konutakiat, Laohathai, Lamsam, Liaophairat, Lee-issaranukun, Lee-nutapong, Lee-sawattrakun, Osathanukhro,

Phenchart, Pornprapha, Photirattnangkun, Phiromphakdi, Rattanarak, Sarasin, Sirimongkonkasem, Sophonpanit, Srifuengfung, Sriwikorn, Suoson, Taechaphibun, Taephaisitphong, Uachukiat, Umpu, Wang Lee, Wiriya-prapaikit, Wattanawekin, Wiriya-phun, and Wongkusolkrit.

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 B&Fs. 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 B&Fs have been involved in management as top executives.

Our business group dummy variable is set to one if the firm is controlled by any of these families, and zero otherwise. To define the level of shareholdings that a shareholder needs to control a firm, we follow the Thai Corporate Law. According to the Law, a shareholder is a major shareholder if he owns at least 10 percent of the shares (Stock Exchange of Thailand, 1997). As summarized in Wiwattanakantang (2001), with this level of shareholdings, a shareholder can control the firm in the following manners. 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.

2.1.2 Bankers on the board

We use *Banker-on-boards* and *Banker-as-executives* to proxy interlocking directorates between firms and B&Fs. Both *Banker-on-boards* and *Banker-as-executives* are dummy variables. *Banker-on-boards* takes the value of 1 if there exists at least one director of the firm's board who also holds a position at the board of B&Fs. *Bankers-as-executives* takes the value of 1 if there exists at least one executive of the firm who also sits on the boards of B&Fs. Note that *Banker-on-boards* and *Banker-as-executives* are mutually exclusive. We expect that top

managers who are at the same time bankers or financiers are likely to make it easier for their companies to get long-term funds.

2.2 Firm characteristic factors

Previous studies suggest that firms that are difficult to monitor due to a high degree of information asymmetry between insiders and outside 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 rating, 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 B&F.

From the creditor side, short-term financing facilitates monitoring by creditors. With a short-term loan contract, B&Fs 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, B&Fs 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, B&Fs can influence the firm's management decisions over investment policy. Also, shorter maturities limit the period during which an opportunistic firm can exploit its creditors without defaulting. In the worse case, with short-term debt, B&Fs can pull their capital out at any indication of trouble (Diamond and Rajan, 2000).

Following the literature, we include a number of variables to control for firm specific characteristics which capture the effects of size, growth potential, information asymmetry, and liquidity risk. In addition, we also control for the ownership and industry effects.

2.2.1 Firm size

According to the capital structure literature, size might indicate the following aspects of the firm. First, size might be positively associated with reputation as well as the level of the firm specific information that is disclosed to the public (Diamond (1991 b)). Second, larger firms are likely to be more diversified and hence have less chance of going into financial distress than smaller firms (Anderson and Makhija, 1999). Third, larger firms tend to have easier access to other financial markets and institutions (Demirguc-Kunt and Maksimovic, 1999). Accordingly, firm size is likely to be positively correlated with the level of long-term debt. We measure firm size as the natural logarithm of sales. (*Log (sales)*).

2.2.2 Investment opportunities

The literature on debt maturity structure suggests that firms with high growth prospects are susceptible to under-investment or over-investment problems and hence are likely to use more short-term debt to mitigate these problems. This under-investment problem arises in firms with debt outstanding (Myers (1977)). Managers tend to pass up their investment opportunities because risky debt captures part of any profitable future investment returns. On the other hand, the over-investment problem arises because of limited liabilities (Jensen and Meckling (1976)). Firms have incentives to invest in risky projects with low or even negative expected payoff because if the projects pay off, they capture most of it, whereas if the projects do not pay off, they are bounded by limited liabilities.

Myers (1977) argues that short-term debt might solve this problem as 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. We use the ratio of the market to the book value of total assets (M-B ratio) as a proxy for future investment opportunities.

In addition, we also include the ratio of net fixed assets to total assets in the model. The agency cost of debt might be less severe in firms with a lot of fixed assets since fixed assets can be served as collateral (Myers, 1977). Investment in fixed

assets is also relatively less difficult to observe and verify by outside investors, when compared to investment in intangible assets. Consequently, the information asymmetries are low in firms with a high ratio of fixed assets. Therefore firms with a high proportion of fixed assets should have higher capacity to borrow long-term. We measure this borrowing capacity by the ratio of net fixed assets to total assets (*Fixed asset ratio*).

2.2.3 Age

Motivated by Diamond (1991b), we use firm age as a proxy for reputation. Older firms have a well-established reputation that can be thought of as reputational capital. These more established firms are unlikely to invest sub-optimally. In contrast, start-up firms have not yet built up their reputation and are less successful. These young firms have very little reputation to lose from being inefficient. Alternatively, Berger and Udell (1995) argue that firm age is associated with the degree of information asymmetry. The degree of information asymmetry is likely to be more severe in younger firms since they have limited financial records. Younger firms, therefore, should not be able to access long-term debt, and tend to have more short-term debt. The measure of age is the natural logarithm of the number of years since the firm was set up ($\text{Log}(\text{Age})$). We apply the logarithm value to reduce the skewness of the age variable.

2.2.4 Credit quality and liquidity risk

Firms with high probability of default risk are likely to have a greater likelihood of financial troubles. These high default risk firms are likely to have difficulty obtaining long term debt since creditors would require high interest rates for bearing the long term credit risk. We include 3 proxies to control for the probability of being in financial distress. The first of these proxies measures credit-worthiness. Following Houston and James (1996), we measure credit-worthiness by interest coverage ratio, defined as the ratio of earning before interest and tax to interest expenses. Coverage ratio measures debt service capacity, hence is an inverse proxy for financial distress if there is any negative shock to the firms' operating income. Consequently, we expect

a positive relationship between long term debt and coverage ratio. Since our coverage ratio is highly skewed to the right, following Anderson and Makhija (1999), we create a dummy variable $COVERAGE > 3$, which is equal to one if the interest coverage ratio is greater than 3.

The second proxy for liquidity risk is volatility in sales (S.D. (sales. 1992-95)), which is defined as the standard deviation of the percentage changes in sales over the period 1991-1995. Finally, we also include leverage ratio in our model. Diamond (1991a) suggests that leverage is likely to be positively related to liquidity risk. We measure leverage as the ratio of total liabilities to total assets.

2.2.5 Maturity matching

The debt maturity of firms is likely to match the maturity of their assets (Stohs and Mauer (1996). Following Demirguc-Kunt and Maksimovic (1999), we control for this maturity matching effect on financing structure by including the variable *Sales/fixed asset*, which is defined as sales divided by net fixed assets. *Sales/fixed asset* in fact measures operating cycle. Specifically, firms with high *Sales/fixed asset* are likely to generate more short-term assets such as notes and accounts receivable. Consequently, this type of firms tend to need more short-term funding to support their sale activities.

2.2.6 Transparency

Following Khanna and Palepu (1999), we use intra group loans as a measure of transparency of firms. Firms with high intra group loans are likely to be less transparent or face a high degree of information asymmetry. Consequently, these firms are more difficult to monitor for several reasons. Intra group loans are often used as a means to allocate cash flow surpluses or external funds to other group members according to each firm's needs and corporate strategic planning. By this practice, an internal capital market is created inside a group. Consequently, group firms are able to obtain funds without going to the capital markets. Group firms, therefore, are able to invest independently from their own cash flows (e.g., Hoshi et al. (1991) and Shin and Park (1999)). Being less financially constrained, group firms

can make investment decisions that are not optimal. Also, these financial transfers within group affiliates may not be efficient as they may allow non-profitable affiliates to survive (Shin and Park (1999) and Chang (2000)). For outsiders, it is usually more difficult to monitor such intra group transactions in a group: short-term loans to other affiliated firms, long-term loans and investment in shares and debentures of other affiliated firms, short-term loans received from other affiliated firms, and long-term loans received from other affiliated firms.

2.2.7 Other control variables

Ownership structure affects agency costs and hence might also affect debt maturity structure. Firms that are owned by foreign investors and government might face different agency problems than family-owned firms. Accordingly, we introduce 2 dummy variables to control for the effect of the foreign and government ownership. *Foreign-owned firms* and *Government-owned firms* are one if their controlling shareholders are foreign investors and the government, respectively. Otherwise they are set to zero. A controlling shareholder is a shareholder with shareholding of 25 percent (Stock Exchange of Thailand (1997)).

To capture the variation in the debt maturity 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. The remaining industry is the agribusiness industry.

2.3 Data

This study uses firm-level data for non-financial companies listed on the Stock Exchange of Thailand in 1996. The data were collected from multiple sources. The equity ownership, members of the board of directors, number of shares outstanding, accounting data for consolidated companies and years of incorporation are obtained directly from the Stock Exchange of Thailand and from the I-SIMS database produced by the Stock Exchange of Thailand.

The characteristics of the companies in the sample are presented in Table 1 (see appendix 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 values of total assets vary from 179,785 million Baht to the minimum of 325.82 million Baht, with mean and median values of 7,140.71 million Baht and 2,428.76 million Baht, 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.² 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.

3. Empirical evidence

3.1 Descriptive statistics on the pattern of financing

Table 2 (appendix 2) provides summary statistics on financial characteristics and the sources of finance of the firms in the sample. The table illustrates the relative importance of each of the different sources of financing as a fraction of total assets and total debt. Overall, debt plays a significant role in firm financing. The mean and median total debt to assets ratio are 43 and 44 percent, respectively. Short-term borrowing from B&Fs is the most important source of debt finance. The mean value of the ratio of short-term bank financing to total assets and debt are 22.1 and 57.5 percent, respectively. The second largest sources of debt financing is from long term debt which is also mainly from B&Fs. Long term debt is significantly less important source of debt finance than short-term bank borrowing. On average it accounts for 27.8 percent of total debt and 12.5 percent of total assets. As domestic public debt markets are not well-developed, public debt is less common. This public in the form of debentures provides on average only 3 percent of total debt and 2.3 percent of total assets.

3.2 Regression results

3.2.1 Crony relationships and long term loans

We estimate the regressions using the OLS estimator. The White (1980) test for heteroskedasticity indicates that our regressions are significantly heteroskedastic at the 1 percent level. We correct this problem using White's (1980) adjustment for heteroskedasticity-consistent covariance matrices. Our analysis is based on the estimates that are corrected for heteroskedasticity.

Table 3 (appendix 2) presents the regression results on the effects of crony relationships on long term bank borrowing, controlling for firm characteristics. The regression method is OLS. Each specification includes a set of 21 industry dummies but the results are suppressed. For all specifications, each of the estimates are corrected for heteroskedasticity using White (1980) adjustment. *P-values* for two tailed t-test are in parentheses. *, **, and *** indicate significance at the 10, 5 and 1 percent levels respectively.

The empirical evidence strongly supports the crony hypothesis that the close ties of personal and political favoritism provide greater access to long term borrowing form B&Fs. The estimated coefficients on all the three measures of firm-bank/finance close ties have the expected signs and are significant in all specifications. The coefficient estimates on *Business Groups* are significantly positive in all three regression specifications; at the 5 percent level in Specification (1), and at the 10 percent level in Specifications (4) and (5). The results show that all else being equal, affiliates of the biggest business groups significantly access more long-term debt. This evidence implies that affiliates of the biggest business groups probably benefit from their owners' connections with banks or finance companies.

The incidence of bankers or financiers on the firm's board either as directors or top executives is associated with more long-term bank borrowing. The coefficient estimates on *Banker-on-Board* are strongly significant at the 5 percent level in all model specifications. Similarly, the estimated coefficients on *Banker-as-Executives* are also positive and significant at the 5 and 10 percent levels in the model Specifications (3) and (5), respectively. These findings support our hypothesis that

B&Fs might provide some comparative advantage in accessing long-term loans to firms that B&Fs also serve as their top executives.

Regarding the effects of firm characteristics on the choices of long-term borrowing, we find very weak support for the hypothesis that firms with high agency costs are likely to use less long-term bank debt. Somewhat surprisingly, none of the coefficient estimates are consistently significant. The coefficients on fixed asset ratio are significant at the conventional levels in Specifications (1), (2) and (3). The coefficients on leverage ratio appear to be significant when the business group dummy variable is regressed together with either *Banker-on-Board* or *Banker-as-Executives* (Specifications (4) and (5)). The coefficients on firm size are statistically significant only in Specifications (2) and (3), where the crony variables are those related to the existence of bankers or financiers on the firm's board.

These results indicate that firms' size and type of assets do matter in such a way that size and fixed assets extend the debt maturity structure. Large firms probably have more access to long-term loans 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. The positive relation between leverage ratio and long-term debt is consistent with the Diamond (1991a) hypothesis that high default risk firms avoid refinancing risk as well as being liquidated by using long-term debt.

Aside from size, tangible assets, and leverage, other firm characteristics that are often found to be empirically important determinants of debt maturity structure in more advanced economies, however, do not appear to have any material effect on long-term borrowing choices of Thai firms.

3.2.2 The effect of crony relationships on long-term loans

In this section, we investigate whether the crony relationships also enable the firms to raise more long-term loans even though the firm characteristic factors do not support such decisions. For example, the debt literature suggests that smaller firms should be associated with more short-term debt as they are less diversified or face higher information asymmetry. However, this size effect on the choices of long-term loans

might disappear or be attenuated if firms have strong connections with banks or financiers. In this section, we attempt to shed light on this issue. Specifically, we investigate whether the firm-bank/finance ties have any influence on the choices of long-term loans via firm characteristics.

To test this issue, we need to simultaneously incorporate the crony and the firm characteristic variables. We re-estimate the regressions including the interaction terms between crony 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 attenuate 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 this regression are presented in Table 4 (appendix 2). In column (1), (2), and (3), the firm characteristics are interacted with *Business Groups*, *Bankers-on-Boards* and *Banker-as-Executives*, respectively. Each model specification includes *Foreign owned firms* and *Government owned firms* and a set of 21 industry dummies, but the results are suppressed.

The dependent variable is long-term loans divided by total debt. CRONY represents the following three crony variables: *Business Groups*, *Bankers-on-Boards* and *Bankers-as-Executives*. Each of the estimates are corrected for heteroscedasticity using White (1980) adjustment. P-values for two tailed t-test are in parentheses. *, **, and *** indicate significant at the 10, 5 and 1 percent levels respectively.

Overall, the results provide more support for the crony capital hypothesis. Consistently, in all of the regressions, the estimated coefficients on the interaction terms between *M-B ratio* as well as firm age and the three crony variables are all statistically insignificant. That is, the firm-bank/finance relationships do not seem to change the effects of growth options and that of firm age on the long-term lending choice.

As for other firm characteristic factors, the effects of these factors on the debt maturity choice between firms that are connected with banks or finance companies and those that are not are significantly different. For example, in Specification (1),

the coefficient on the interaction term between *Business Groups* and our proxy for default risk, namely the coverage ratio, is negative and significant at the 10 percent level. The coefficient on the coverage, however, is positive and insignificant. This result indicates that while default probability has no significant impact on the choice of long-term debt for other firms, default probability does have positive effects in the case of business groups. Business group firms with low coverage ratio, implying a greater risk of financial distress, appear to be able to use more long-term debt, which is probably preferable because it is not liquidated as often (Diamond (1991b)). Long-term loans are directed to the biggest business group firms with high default risk probably because these groups' controlling shareholders have strong connections with B&Fs. The estimated coefficients on *S.D. (Sales 1992-95)* are also consistent with this evidence. We find that *S.D. (Sales 1992-95)* is negatively related to the long-term lending ratio. The coefficient estimate on the interaction term between *S.D. (Sales 1992-95)* and *Business Groups*, however, is not statistically significant. These results imply that for other firms, high default risk firms use less long-term lending. The volatility in sales, however, has no material effect on long-term debt decisions.

Our results also show that the crony relationships might facilitate less transparent firms that are business group affiliates to use more long-term loans. When the variable *Business Groups* is interacted with *Transparency*, the coefficient on the interaction term is positive and strongly significant at the 5 percent level, while the coefficient on *Transparency* is not statistically distinguishable from zero. This evidence is consistent with the our crony hypothesis that close connections with banks or finance companies provide less transparent firms easier access to long-term debt.

In a similar manner, when *Banker-on-boards* is interacted with firm characteristic factors (Specification (2)), we find a positive relation between the interaction term between *Banker-on-boards* and *Sales/Fixed Asset*. The coefficient on this interaction term is significant at the 10 percent level. As *Sales/Fixed Asset* measures the matching maturity hypothesis, we predict a negative relationship between *Sales/Fixed Asset* measures the matching maturity hypothesis, we predict a negative relationship between *Sales/Fixed Asset* and long-term debt ratio. In other words, firms should use short-term financing to support sales. Non-crony firms

appear to follow this prediction. However, the results are materially different for the crony firms. The positive coefficient on the interaction term implies that bankers or financiers that sit on the firm's board might facilitate long-term loans to finance sales. This result is indeed consistent with our crony hypothesis and against the debt matching maturity theory.

In Specification (3), we find strong evidence for the importance of the fixed asset ratio, size and leverage ratio in determining the long-term debt decisions for non-crony firms. The coefficients on these three firm characteristics are positive and significant at the conventional levels. Both the effects of fixed asset ratio and size on the long-term loan ratio follow the predictions of the debt maturity theory and size on the long-term loan ratio follow the predictions of the debt maturity theory. Interestingly, the coefficients on the interaction term between *Banker-as-executives* and these three firm characteristic variables turn out to be insignificant. Consistent with our crony hypothesis, firms that are run by bankers or financiers appear to use higher long-term loans. The debt maturity decisions of these firms, however, are not influenced by any firm characteristic factors.

3.2.3 Robustness tests

In this section, we discuss the robustness of our references to alternative specifications of independent variables. We estimate regressions where crony variables are not included. The results in Table 5 (appendix 2) confirm our previous findings. In Specification (1), except the coefficients on firm size and the fixed asset ratio, estimated coefficients on other firm characteristics are not statistically significantly different from zero at the conventional levels. In addition, these results also appear to be robust to alternative proxies of coverage ratio. When we include *COVERAGE* > 5, which is equal to one if the interest coverage ratio is greater than 5, this variable as well as other variables are similar to those reported in specification (1).

Previous studies such as Stohs and Mauer (1996) argue that there might be the interaction between the market to book value, leverage and debt maturity. More precisely, leverage, maturity and growth might be simultaneously determined. Stohs

and Mauer (1996) show that the effects of the market to book value on the debt maturity depends on whether leverage is included as a explanatory variable. When leverage is omitted in the regressions, Stohs and Mauer (1996) find that the market to book value appears to be significant and inversely related to debt maturity. However, when leverage is included as a control variable, the coefficient on the market to book value becomes insignificant. In our analysis discussed in the previous section, we have accounted for this interaction by including leverage in the regressions. However we also show that our previous findings are not affected by leverage. The estimated coefficient on the M-B ratio is negative but not significant when we omit our leverage measure (Specification (3)).

Taken together, our results reveal that long-term bank loans appear to be directed increasingly toward firms that are strongly connected to banks or finance companies, that are large, and that have larger fixed assets. Other factors, such as growth options, capital structure, probability of default, asset maturity, and age do not appear to be important in explaining cross-sectional variation in the firm's long-term debt decisions.

4. Conclusion

We find that for Thai firms, the presence of close ties with banks or finance companies 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 that 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 more useful 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 serve a useful purpose at a low level of institutional (under) development and become obsolete as the economy develops further? It is difficult to understate the need for further theoretical and empirical work on these issues.

NOTES

1. As quoted in the *Financial Times* 1/12/98, Jan Cherim, Country Manager for ING Bank in Thailand, said, "Every time we saw the Bank of Thailand they would tell us "Finance One is OK. We're backing it all the way. When they didn't you had to question just about everything they'd ever told you."
2. 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 information available for 1996. 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.

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* The views expressed in this paper are those of the authors and do not represent the policy and view of authors' institutions whatsoever.

Appendix 1

The Model

In this section we present a simple analytical framework in order to facilitate an understanding of the nature of the cronyism we have in mind. Our approach to the problem is based on the recent literature on the soft-budget constraint (SBC) problem of transition economies (Dewatripont and Maskin, 1995, Mitchell, 1997, and Berglof, Geranr, and Roland, 1998).

We consider a three-tier hierarchy of authority with the government at the apex, the banks and finance companies (B&Fs henceforth) in the middle and the entrepreneur/firm at the bottom. In such an environment, a soft-budget constraint at the government-bank/finance level, implying that the government will bail-out the B&Fs in the event of financial distress caused by loans to poor quality projects, can filter down to the next level causing firms to shirk in terms of effort. This in turn can increase the likelihood of the poor outcome in the first place. We first describe the basic framework and then introduce cronyism and corporate governance changes.

First consider the bank/finance-firm interaction. The 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 for the purchase of productive assets. These assets can then be combined with entrepreneurial labor to produce a return on the investment. Projects can be of two types: high quality, in proportion θ , or low quality, in proportion $1-\theta$. Good projects always yield a gross return of R_g and private benefits of B_g to the entrepreneur. The return from bad projects depends on the level of entrepreneurial effort. The entrepreneur can exert a *high* level of effort, in which case the returns are the same as the good project. If the entrepreneur exerts a *low* level of effort on bad projects then the project return is zero. Entrepreneurs have no wealth and hence have to rely on external finance from the B&Fs. Ex ante, the bank or finance company knows the distribution of project types in the population but not the type of any particular firm. We thus have a combination of adverse selection and moral hazard. We assume that project returns can be claimed in their entirety by the bank or finance company.

If a bad project fails on account of entrepreneurial shirking, the bank or finance company has two options. It can liquidate the firm's assets and obtain a liquidation value of L , with the entrepreneur receiving nothing in this event. Otherwise it can refinance the loan for one more period, injecting an additional unit of money into the operation. In this event, with probability p it generates R_p for the bank or finance company, and with probability $(1-p)$ it fails, generating a liquidation value $L_p < L$. The entrepreneur receives private benefits of B_p in both cases. If the second period refinanced project fails, the bank or finance company collapses if not bailed-out as we assume its net position is then negative (more on this below). To keep matters simple, we assign all the bargaining power to the bank or finance company so that the bank or finance company is able to extract all the monetary returns from financing the projects and entrepreneurs are limited to private benefits.

In order to formalize the idea of bank/finance moral hazard, that is, the idea that B&Fs may be passive in their lending practices with the expectation that the government will bail them out if their projects turn out poorly, we graft a game

between the government and the bank/finance on top of this game between the bank/finance and the entrepreneur. Suppose the government can decide to monitor the bank/finance to ascertain whether the bank liquidates bad projects or remains passive. The government does this by choosing ex ante, in the first period, a detection probability γ that involves a cost $c(\gamma)$, with $c' > 0$, $c'' > 0$. Detection takes place after the refinancing stage, and if detected the management of the bank/finance is fired and the bank/finance is recapitalized (bailed-out) to the extent of its negative net position. In other words, by the time bank/finance passivity has been detected by the government, the damage has already been done; it is too late to undo the bank/finance's refinancing decision.

The timing of the game is as follows. In period 1 the government decides on γ and incurs the monitoring cost $c(\gamma)$. The bank lends to finance projects, and entrepreneurs with poor projects decide on their effort level. In period 2, returns are observed and the bank/finance decides whether to liquidate or not, by choosing a level of activity $a \in [0,1]$. Immediately afterward the government monitors and fires passive bank managers, in which case they get nothing, and recapitalizes the bank/finance if it has a negative net position.

There are thus two layers of soft-budget constraint problems in this environment, one at the level of the government-bank/finance interaction and the other at the level of the bank/finance-firm interaction. As we will see, a soft-budget constraint at the first level can be transmitted to the next level. We analyze the model by applying standard backward induction techniques.

We start by asking what will be the effort choice of the entrepreneur with the bad project. In period 2, if the bank/finance refinances the project, the entrepreneur receives B_p . This happens with probability $(1-a)$. Thus the entrepreneur shirks if $(1-a) B_p \geq B_g$. In other words, firms have hard budget constraints only if the bank is sufficiently active; they have soft budget constraints otherwise.

Firm behavior in turn affects the financial position of the bank/finance. If firms have hard budget constraints, the bank/finance's net payoff is $R_g - 1$. But if low quality firms do not exert effort, the bank/finance's net payoff is

$$a(\theta R_g + (1-\theta)L - 1) + (1-a)(1-\gamma)p(\theta R_g + (1-\theta)(R_p - 1) - 1) \quad (1)$$

In other words, if B&Fs are active in liquidating poor quality projects, their return is the first term in the above expression. If they are passive, then with probability p they are lucky, in which case their return is the second term above. If they are unlucky, their return is $\theta R_g + (1-\theta)(L_p - 1) - 1$ which can be negative if the proportion of high quality projects θ is small and the liquidation value L_p is not large either. We assume that this loss is bounded at zero because of limited liability but they collapse if not bailed out by the government. If we assume that the first term within the brackets of the above expression, i.e., $(\theta R_g + (1-\theta)L - 1)$ is positive, we do not have to worry about government bailout if the bank is active. Then the government's payoff when firms have soft budget constraints can be written as

$$-c(\gamma) - (1-a)(1-p)(1-\theta R_g + (1-\theta)(1-L_p)) \quad (2)$$

If we assume $1 - \theta R_g + (1-\theta)(1 - L_p) > 0$, bailout is necessary if banks are passive. Note that the amount of bailout depends directly on a and not on γ , but a itself depends on γ . It is important that $L_p - 1 < L$ so that government payoff increases with bank activity.

From equation (1) we can see that the bank/finance will prefer $a = 1$ if

$$\theta R_g + (1-\theta) L - 1 > (1-\gamma)p(\theta R_g + (1-\theta) (R_p - 1) - 1)$$

which yields,

$$\gamma > \gamma' = \frac{(1-\theta)(p(R_p - 1) - L) - (1-p) (\theta R_g - 1)}{p(\theta R_g + (1-\theta) (R_p - 1) - 1)} \quad (3)$$

The bank/finance's decision is thus based on a comparison between the expected benefits of being passive with the expectation of a bailout by the government and the potential loss if caught being passive.

In the first period, the government will choose the critical monitoring probability (γ') that deters bank passivity if the cost of monitoring is less than the expected bail-out expenditure,

$$c(\gamma') \leq (1-p) (1 - \theta R_g + (1-\theta) (1 - L_p)) \quad (4)$$

The government's choice is thus binary. If condition (4) is satisfied, it chooses γ' and deters bank/finance refinancing of the project. Otherwise, it accepts the soft budget constraint of firms and consequent bailout of banks ex-post.

2.1 Cronyism and Corporate Governance

In order to understand the effects of cronyism and changes in the corporate governance regime, now suppose that there are two groups into which we can subdivide firms: those that have crony ties with the bank/finance and those that do not. Cronyism between B&Fs and firms is often discussed as being manifested in the form of preferential financing terms that B&Fs offer some, often low quality, firms. A simple way to incorporate this in the above framework is by assuming that when a low quality firm that has crony ties with the bank/finance is refinanced for the second period, a part of the private return of the entrepreneur finds its way back to the bank/finance. Let us denote this amount by δ . Then we could say that the private benefit of the entrepreneur of the poor quality refinanced firm in the last period becomes $B_p - \delta$ and the gain of the bank/finance is $R_p + \delta$ if the project succeeds and $L_p + \delta$ if the project fails. Assuming the 'kickback' $\delta > 1$ is sufficient to demonstrate that the threshold detection probability γ' that deters second period refinancing, becomes higher under a regime of cronyism. In other words, *the bank/finance will extend second period refinancing to a firm with crony ties under circumstances in which it would liquidate a firm that has no such ties.*

We could approach the issue from a corporate governance perspective by interpreting the government monitoring cost $c(\gamma)$ as being inversely related to the quality of corporate governance in the environment. There are two empirical

implications we can draw out of this view. First, if $c(\gamma')$ is small, implying good corporate governance, the bank/finance will not extend second period refinancing to any poor quality firms. Second, *if quality of corporate governance ($c(\gamma')$) is just sufficient to deter second period refinancing to firms in the absence of cronyism, the addition of cronyism (in the form of the kickback δ to the bank) implies that B&Fs will differentially refinance firms with crony ties.*

Appendix 2

Table 3.1: Sample Description

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	179,785.00	325.81
Sales revenue	3,531.52	1,544.03	107,273.01	11.31
Market value of equity	4,485.53	926.94	118,930.50	47.20
Number of years incorporated	21.02	17.00	120.00	2.00

Note: Values are in million Baht

Table 3.2: Summary Statistics

	Mean	Median	Maximum	Minimum
Pattern of financing				
Total liabilities/total assets	0.549	0.573	0.92	0.015
Total debt/total assets	0.43	0.44	1.094	0
Short-term borrowing/total assets	0.221	0.189	0.78	0
Other short-term debt/total assets	0.037	0.023	0.269	0
Debentures/total assets	0.023	0	0.486	0
Long-term debt/total assets	0.125	0.086	0.611	0
Trade credit/total assets	0.072	0.052	0.398	0
S-T loans from other group firms/total assets	0.013	0	0.39	0
L-T loans from other group firms/total assets	0.003	0	0.152	0
Debt structure				
Short-term borrowing/total debt	0.575	0.619	1	0
Other short-term debt/total debt	0.086	0.058	0.642	0
Debentures/total debt	0.03	0	0.48	0
Long-term debt/total debt	0.278	0.198	1	0
Other financial characteristics				
S-T loans to other group firms/total assets	0.031	0.002	0.743	0
L-T loans to other group firms/total assets	0.058	0.018	0.554	0
Total intra group financial transactions/total assets	0.106	0.05	0.885	0
M-B ratio	1.175	0.975	4.94	0.25
Fixed asset ratio	0.419	0.388	0.935	0.011
Coverage ratio	163.85	1.62	35761.4	-51.21
Coverage > 3	0.307	0	1	0
Sales/fixed assets	2.789	1.732	27.09	0.008
Log (Sales)	6.212	6.189	8.03	4.054
S.D. (Sales)	0.388	0.167	4.718	0.005
Log (Age)	0.337	0	1	0
Business Groups	0.259	0	1	0
Bankers-on-Board	0.644	1	1	0
Bankers-as-Executives	0.33	0	1	0
Percentage of Bankers-on-Board	0.114	0.083	0.667	0
Percentage of Bankers-as-Executives	0.035	0	0.25	0

Note: *Other short-term debt* is long term debt that is due in this period. *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. *Sales/fixed assets* is the ratio of sales to net fixed assets. *Age* is the number of years

since incorporation. *Leverage* is the ratio of total liabilities to total assets. *Coverage ratio* is the ratio of earnings before interest and tax to interest expenses. *Coverage > 3* is a dummy variable, taking value one if the ratio of earnings before interest and tax to interest expenses greater than 3. *S.D. (Sales)* is the S.D. of the percentage changes in sales over the period 1991-1995. *Business Groups* is a dummy variable, taking the value of 1 if the firm belongs to one of the 50 largest business groups. *Bankers-on-Boards* and *Bankers-as-Executives* take the value of 1 if there exists at least one member from the board of banks acting as director or top executive of the firm, respectively. *Percentage of Bankers-on Boards* is the percentage of members of the firm's board of directors who also hold positions on the boards of banks and finance companies. *Percentage of Bankers-as-Executives* is the percentage of top executives who came from banks and finance companies. *Transparency*, measured by total intra-group financial transactions, is the total financial transactions between group affiliates, which is the summation of the following 4 variables. 1. S-T loans to other group firms is short-term loans to other group affiliates. 2. L-T loans to other group firms is long-term loans to other group affiliates. 3 S-T loans from other group firms is short-term loans received from other group affiliates. 4. L-T loans from other group firms is long-term loans received from other group affiliates.

Table 3.3: The Effects of Crony Relationships

Independent Variable	(1)	(2)	(3)	(4)	(5)
Business Groups	0.098 (0.029)	**		0.083 (0.070)	0.079 * (0.094)
Banker-on-Board		0.076 (0.016)	**	(0.064) (0.046)	**
Banker-as-Executives			0.081 (0.030)	**	0.064 * (0.098)
M-B Ratio	-0.007 (0.763)	-0.007 (0.774)	-0.003 (0.914)	0.109 (0.459)	0.113 (0.437)
Size	0.061 (0.123)	0.077 (0.042)	** 0.066 * (0.081)	-0.008 (0.735)	-0.005 (0.850)
Log (Age)	-0.033 (0.642)	-0.020 (0.775)	-0.036 (0.615)	0.057 (0.150)	0.050 (0.206)
Fixed asset ratio	0.284 * (0.072)	0.324 (0.033)	** 0.338 ** (0.023)	-0.030 (0.675)	-0.042 (0.558)
Total liabilities / Asset	0.123 (0.272)	0.115 (0.306)	0.099 (0.376)	0.279 * (0.075)	0.293 * (0.059)
Coverage > 3	0.001 (0.988)	0.006 (0.894)	-0.004 (0.930)	0.135 (0.231)	0.121 (0.283)
Sales / Fixed Asset	-0.005 (0.372)	-0.005 (0.384)	-0.004 (0.474)	0.006 (0.897)	-0.002 (0.960)
S.D. (sales 1992-95)	-0.014 (0.527)	-0.009 (0.683)	-0.018 (0.438)	-0.006 (0.318)	-0.005 (0.390)
Transparency	0.144 (0.318)	0.154 (0.318)	0.152 (0.313)	-0.012 (0.578)	-0.019 (0.399)
Foreign owned firms	0.057 (0.297)	0.013 (0.797)	0.025 (0.626)	0.045 (0.414)	0.054 (0.332)
Government owned	0.127 (0.243)	0.095 (0.439)	0.070 (0.595)	0.115 (0.299)	0.095 (0.422)
Intercept	-0.324 (0.217)	-0.475 (0.052)	* -0.368 (0.139)	-0.331 (0.205)	-0.256 (0.330)
Adjusted R-Square	0.246	0.246	0.245	0.254	0.252
F-statistic	3.660	3.657	3.648	3.697	3.669
P-Value	0.000	0.000	0.000	0.000	0.000

Note: The dependent variable is long-term loans divided by total debt. *Business Groups* is a dummy variable, taking the value of 1 if the firm belongs to one of the 50 largest business groups. *Bankers-on-Boards* and *Bankers-as-Executives* take the value of 1 if there exists at least one member from the board of banks acting as director or top 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. *Sales/fixed assets* is the ratio of sales to net fixed assets. *Age* is the number of years since incorporation. *Leverage* is the ratio of total liabilities to total assets. *Coverage > 3* is a dummy variable, taking value one if the ratio of earnings before interest and tax to interest expenses greater than 3. *S.D. (Sales)* is the S.D. of the percentage changes in sales over the period 1991-1995. *Transparency* is measured by total intra-group financial transactions. *Foreign owned firms* and *Government owned firms* are dummy variables, taking the value of 1 if the firm's controlling shareholders are foreigners and the government, respectively.

Table 3.4: The interaction between Crony variables and firm characteristics

	Busines Groups	Bankers- On-Board	Bankers- As-executives	
(M-B-ratio)*CRONY	0.077 (0.301)	0.014 (0.786)	-0.015 (0.835)	
Size*CRONY	-0.003 (0.966)	0.063 (0.523)	-0.051 (0.558)	
Log (Age) *CRONY	-0.228 (0.135)	-0.192 (0.165)	-0.185 (0.210)	
Fixed asset ratio*CRONY	-0.149 (0.486)	0.238 (0.250)	-0.266 (0.190)	
(Total liabilities / Assets)*CRONY	0.059 (0.836)	-0.098 (0.633)	-0.353 (0.170)	
(Coverage > 3)*CRONY	-0.168 * (0.076)	-0.093 (0.239)	-0.090 (0.310)	
(Sales / Fixed Asset)*CRONY	0.012 (0.203)	0.024 (0.084)	* 0.003 (0.785)	
S.D. (sales 1992-95)*CRONY	0.048 (0.290)	0.001 (0.989)	-0.002 (0.963)	
Transparencv*CRONY	0.499 ** (0.040)	0.282 (0.238)	0.010 (0.968)	
Business Groups	0.264 (0.602)			
Banker-on-Board		-0.205 (0.731)		
Banker-as-Executives			0.973 (0.061)	*
M-B-ratio	-0.032 (0.156)	-0.023 (0.465)	0.005 (0.878)	
Size	0.074 (0.158)	0.037 (0.677)	0.104 (0.030)	**
Log (Age)	0.046 (0.546)	0.119 (0.284)	0.036 (0.654)	
Fixed asset ratio	0.352 ** (0.030)	0.083 (0.674)	0.436 (0.004)	***
Coverage > 3	0.046 (0.357)	0.070 (0.249)	0.032 (0.515)	
Sales / Fixed Assets	-0.011 (0.116)	-0.028 (0.035)	** -0.006 (0.480)	
S.D. (sales 1992-95)	-0.051 ** (0.043)	-0.001 (0.971)	-0.025 (0.548)	
Transparencv	-0.021 (0.876)	-0.085 (0.646)	0.118 (0.463)	
Intercept	-0.493 (0.142)	-0.229 (0.676)	-0.800 (0.007)	***
Adjusted R-squared	0.289	0.237	0.246	
F-statistic	3.604	2.992	3.087	
P-Value	0.000	0.000	0.000	

Table 3.5: Regression results: The Effects of Firm Characteristics

Variable	Specification (1)	Specification (2)	Specification (3)
M-B ratio	-0.006 (0.817)	-0.003 (0.898)	-0.005 (0.834)
Size	0.087 ** (0.021)	0.087 ** (0.019)	0.097 *** (0.006)
Log (Age)	-0.022 (0.758)	-0.021 (0.768)	-0.028 (0.690)
Fixed asset ratio	0.339 ** (0.025)	0.339 ** (0.027)	0.333 ** (0.030)
Total	0.095 (0.391)	0.081 (0.490)	
COVERAGE > 3	0.000 (0.993)		-0.015 (0.700)
COVERAGE > 5		-0.013 (0.818)	
Sales / fixed assets	-0.004 (0.475)	-0.004 (0.517)	-0.004 (0.466)
S.D. (sales 1992-95)	-0.011 (0.641)	-0.011 (0.642)	-0.011 (0.642)
Transparency	0.207 (0.173)	0.206 (0.178)	0.211 (0.164)
Foreign owned firms	0.021 (0.686)	0.021 (0.676)	0.02 (0.696)
Government owned	0.104 (0.391)	0.104 (0.389)	0.107 (0.370)
Intercept	-0.498 ** (0.042)	-0.498 ** (0.042)	-0.496 ** (0.042)
Adjusted R-Square	0.232	0.233	0.234
F-statistic	3.545	3.548	3.645
P-Value	0.000	0.000	0

Note: The dependent variable is long-term borrowing from banks and finance companies divided by total debt. *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. *Sales/fixed assets* is the ratio of sales to net fixed assets. *Age* is the number of years since incorporation. *Leverage* is the ratio of total liabilities to total assets. *Coverage > 3* is a dummy variable, taking value one if the ratio of earnings before interest and tax to interest expenses greater than 3. *S.D. (Sales)* is the S.D. of the percentage changes in sales over the period 1991-1995. *Transparency* is measured by total intra-group financial transactions. *Foreign owned firms* and *Government owned firms* are dummy variables, taking the value of 1 if the firm's controlling shareholders are foreigners and the government, respectively. The regression method is OLS. Each specification includes a set of 21 industry dummies, but the results are suppressed. For all specifications, each of the estimates are corrected for heteroskedasticity using White (1980) adjustment. *P-values* for two tailed t-test are in parentheses. *, **, and *** indicate significance at the 10, 5 and 1 percent levels respectively.

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