

# **Tunneling in China: The Remarkable Case of Inter-Corporate Loans**

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## **Tunneling in China: The Remarkable Case of Inter-Corporate Loans**

### **Abstract**

Recent events in China provide a historical opportunity to study the expropriation of minority shareholders. In this paper, we document the use of inter-corporate loans by controlling shareholders to extract funds from Chinese listed firms. Using accounting information from public sources, we show how tens of billions of RMB were siphoned from hundreds of companies during the 1996 to 2006 period. Specifically, we show the nature and extent of these abuses, evaluate their economic consequences, explore their cross-sectional determinants, and report on the extensive efforts by auditors and regulators that eventually contained this practice. Collectively, our findings shed light on the nature and severity of the tunneling problem in China, and the on-going challenges associated with regulatory reform in the country.

## I. Introduction

Financial economists are becoming increasingly aware of the severity of agency problems associated with concentrated shareholdings. Traditionally, the focus of the agency literature in the U.S. has been on the conflict between firm managers and a diffused group of shareholders (e.g., Berle and Means (1932) and Jensen and Meckling (1976)). However, recent international studies show that well dispersed ownership is relatively rare outside of the U.S. and Japan, and that large block holders control most European and Asian companies.<sup>1</sup> In this broader setting, the central agency problem is the threat of “tunneling” – i.e., the expropriation of minority shareholders by the controlling block holder.<sup>2</sup>

In this study, we report on a form of tunneling that was remarkably widespread among Chinese firms in the 1996 to 2006 sample period. Specifically, we document the use of inter-corporate loans by controlling block holders to extract funds from Chinese listed companies. Our analyses show how tens of billions of RMB were siphoned from hundreds of Chinese publicly listed companies. We examine the nature and extent of these loans, evaluate their economic consequences, explore their cross-sectional determinants, and report on the difficulties faced by auditors and security regulators in their attempt to bring this practice under containment.<sup>3</sup>

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<sup>1</sup> Studies that examine corporate ownership structure in Asia and Europe include: La Porta et al. (1998, 1999), Claessens, Djankov, and Lang (2000), Claessens, Djankov, Fan and Lang (2002), Faccio and Lang (2002), Faccio, Lang and Young (2001), and Johnson et al. (2000).

<sup>2</sup> See for example, Shleifer and Vishny (1997), La Porta et al. (1999), Johnson et al. (2000), and Faccio et al. (2001). According to Johnson et al. (2000, page 22), the term tunneling was originally used “to characterize the expropriation of minority shareholders in the Czech Republic (as in moving assets through an underground tunnel).” Such transfers can take many forms, including: advantageous transfer pricing to parties related to the controlling shareholder, excessive executive compensation, loan guarantees, expropriation of corporation opportunities, manipulation of dividend payout rates, and so on. In all these cases, the controlling shareholder, often with the aid of a cooperative management, diverts economic resources from the firm to the detriment of minority shareholders.

<sup>3</sup> Later, we describe in detail how the practice of tunneling through inter-corporate loans finally ended in December 2006 after a long series of government rules and directives (see Appendix 5).

In many respects, the Chinese market provides a unique opportunity for studying the tunneling phenomenon. Since re-opening her stock exchanges in the early 1990's, over 1,500 Chinese companies have gone public in Shanghai and Shenzhen. Most of these firms are carve-outs or spin-offs from an existing state-owned enterprise (SOE), in which the original SOE retains a substantial block holding. As a result, highly concentrated ownership structure is the norm.<sup>4</sup> In addition, shares owned by the block holder are non-tradable, thus limiting the ownership benefits of price appreciation to the controlling shareholder, and increasing her incentive to obtain benefits through other channels.<sup>5</sup> These market features, in conjunction with a weak regulatory system, give rise to an environment highly conducive to tunneling.

Our investigation focuses on inter-corporate loans, a particularly convenient instrument through which Chinese majority shareholders can achieve their tunneling ambitions. Typically reported as part of "Other Receivables" (OREC), these loans represented a large portion of reported assets for many Chinese companies. During our sample period (we examine annual reports for 1996 to 2004, and stock returns to 2006), OREC averaged 6.5% to 11.8% of total assets for all Chinese listed firms. For firms in the top decile, OREC averaged 32% of total assets. Moreover, using a hand collected sample of controlling shareholder receivables from Ye (2006), we show that a substantial portion of these loans (between 30 to 40% of total OREC in the top three decile firms) can be directly traced to large block holders or their affiliates.<sup>6</sup>

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<sup>4</sup> As we show later, the percentage of shares controlled by the largest shareholder for the median firm in our sample is 43.6%; the inter-quartile range is 30% to 59%.

<sup>5</sup> In July 2005, the Chinese government announced a policy aimed at eventually converting all restricted shares into tradable shares. This program is an attempt to address a key incentive for tunneling. It will take many years to implement and has little bearing on our empirical tests. In the summary section, we discuss the extent to which this policy is likely to affect incentives for tunneling in the future.

<sup>6</sup> This figure almost certainly understates the magnitude of the related-party portion of OREC, as many of the affiliates cannot be easily identified with the controlling entity. The problem is exacerbated by

We show that companies with large OREC balances exhibit significantly worse future operating performance, both in terms of lower accounting rates-of-return and higher likelihood of entering financial distress. In fact, we find that controlling for current ROA, the level of OREC scaled by total assets (ORECTA) is the single best predictor of next year's ROA. Moreover, high ORECTA firms are far more likely to become a candidate for ST (Special Treatment) status – 14% of the top decile ORECTA firms attain ST status in two years, compared to an average of less than 2% in the bottom 2 deciles firms.<sup>7</sup>

In cross-sectional analyses, we show that market participants do not appear to fully anticipate the negative consequences of these loans. We find that the market uses a higher implied discount rate in valuing the earnings of High-OREC firms, suggesting a general awareness of the problem. However, we also find that high-OREC firms earn lower risk-adjusted returns in the subsequent 12-months, suggesting that the negative implications of these loans are not fully incorporated into prices in a timely manner. A hedge portfolio that sells the top decile ORECTA firms and buys the bottom decile earns over 1% per month over the next 12 months. This result is robust to various risk adjustments and, consistent with the tunneling hypothesis, almost all the profits are earned during market downturns.

We also examine several factors that could affect the severity of the agency problem across firms. Consistent with prior studies on large shareholder incentives (e.g., Claessens et al. (2002)), we find that this form of tunneling is most problematic when the block holder's controlling right (C) is much larger than her ownership right (O). Specifically, we show that firms in which the controlling shareholder enjoys the

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the pyramidal structure of Chinese listed companies, which can obscure related party relationships (see Fan et al. (2005)).

<sup>7</sup> Chinese listed firms that have two consecutive annual losses (or whose book value becomes negative) receive “Special Treatment” or “ST” status. ST stocks are under various trading and financial restrictions, and if they report one more loss year, they will be delisted.

lowest cash flow ownership rights (i.e., firms with large C/O ratios) have the largest ORECTA balances. We also find that ORECTA balances tend to be bigger for small firms (SIZE), non-state-owned firms (STATE), and firms registered in regions that are less economically developed (MARKETIZATION).

As a further analysis, we evaluate the monitoring role of auditors. Allen et al. (2004) suggest that a weak auditing profession is at least partially to blame for the relatively sluggish growth of China's Listed Sector (publicly listed firms). We find, however, that auditors play a rather active monitoring role. Firms with high-OREC balances are far more likely to receive a qualified opinion – in fact, the size of a firm's ORECTA balance is the single best variable for predicting whether a firm has an unclean opinion. Moreover, a full 45% of the firms in the highest ORECTA decile received an unclean opinion. Unfortunately, we find that firms receiving a qualified opinion in one year exhibit no tendency to reduce their OREC balance in the following year. These findings point to ineffective enforcement of investor protection laws, rather than ineffective audits, as the main problem in China.

As a final analysis, we chronicle the extensive regulatory efforts that eventually forced controlling block holders to repay (or otherwise settle) their debts to listed companies. In Appendix 5, we summarize the long string of rulings and directives that were issued between 2004 and 2006 aimed at stopping this practice. These edicts culminated in a joint statement by eight government ministries in November 2006, threatening personal action against the top management of the controlling shareholders unless the inter-corporate loans from listed companies are repaid by December 31, 2006. This unprecedented show of political resolve finally forced the repatriation of most of the remaining OREC balances – which, even as late as 2006, amounted to close to 50 billion RMB, and involved over 400 firms.

Our study extends the existing tunneling literature along several lines. First, while most prior studies focus on documenting the wealth effect of possible tunneling, we

provide detailed evidence on how it is actually conducted. Rather than inferring tunneling effects indirectly, by linking firm valuation with ownership structure, we develop an explicit empirical measure of tunneling behavior.<sup>8</sup> Second, by employing an empirical metric that is broadly available for all listed firms, our analyses go beyond specific business groups or clusters of related parties, to document a market-wide phenomenon of unprecedented scale.<sup>9</sup>

Third, we establish a cross-sectional link between the magnitude of the tunneling activity and the severity of the economic consequences for investors. Specifically, we show that firms with larger ORECTA balances have worse future operating performance, increased likelihood of financial distress, as well as lower risk-adjusted returns. To our knowledge this is the first paper to establish such an empirical link.

Fourth, we examine determinants of the level of tunneling, and identify several cross-sectional factors that are related to the severity of the problem. Some of these factors are specific to China (e.g. STATE and MARKETIZATION); others extend the international evidence on incentives for large shareholder tunneling (e.g., BLOCK and SIZE). Finally, we offer new evidence on the role of auditors and regulators in their efforts to combat the problem. Specifically, we show that auditors were actively involved in warning investors, but weak regulatory enforcement prevented serious reform from taking root until the end of 2006.

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<sup>8</sup> The earliest international tunneling studies simply discuss tunneling through case studies (e.g., Johnson et al (2000)). Later studies infer the existence of tunneling indirectly, either by linking ownership structure to the market valuation of a firm's equity (e.g., Bae et al (2002), Bertrand et al (2000), Faccio et al (2001)), or changes in market value during the Asian crises (Lemmon and Lin (2003)). None of these studies use a direct empirical measure of tunneling activities.

<sup>9</sup> Prior China studies either involve small samples (e.g., Chen and Jian (2005)'s study of dividend payouts) or examine tunneling in the context of earnings management and "propping" behavior (e.g. Liu and Lu (2002), Jian and Wong (2006)). These studies are complementary to ours. In fact, we believe a tunneling perspective is essential in understanding the managerial behavior of Chinese firms, including propping and earnings management. We discuss how our own analyses relate to the existing literature in greater detail in the next section.

Overall, our findings provide a portrait of the nature and severity of the tunneling problem in China, and the on-going challenges associated with regulatory reform in this major emerging economy. Although the specific form of abuse associated with inter-corporate loans has been largely eliminated, most of the economic incentives that gave rise to this tunneling behavior are still in place. Until certain fundamental tensions associated with concentrated ownership are resolved, we believe the threat of tunneling will be an on-going problem for Chinese investors and regulators.

The remainder of this paper is organized as follows. Section II provides background information on the Chinese stock market and relates our analysis to recent academic studies on corporate governance issues in China. Section III presents our empirical analysis, including research methodology, data description, and test results. Section IV concludes with a discussion of the implications of our findings.

## **II. Institutional Background and Literature Review**

### *II.1 Salient Features of the Chinese Stock Market*

In the early 1990s, under a “partial privatization” initiative, the Chinese Government allowed state owned enterprises (SOEs) to sell a minority portion of ownership to private investors. This led to the creation of China’s two stock exchanges: Shanghai (in 1990) and Shenzhen (in 1991). The two markets expanded quickly, so that by the end of 2004, the number of listed stocks reached 1,377 with a total market capital of 3,706 Billion RMB. Therefore, by virtue of heritage and design, virtually all Chinese listed firms have concentrated ownership structures that feature a dominant shareholder.

Common stocks in China are classified into two groups: tradable or non-tradable (also called negotiable vs. non-negotiable, or transferable vs. non-transferable).<sup>10</sup> To

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<sup>10</sup> After our sample period, and as part of on-going reform, non-tradable shares have been converted into tradable status. As we discuss in the summary section, this recent initiative is unlikely to



maintain control in the hands of the state, shares owned by all levels of governments, all state agencies (such as universities), and state-owned corporations are deemed *State* shares, and are non-tradable. In addition, shares owned by a collective institution (e.g., a township enterprise), or other non-individual legal persons, are deemed *Legal Person (LP) shares*, and are also not allowed to trade. The rest of the shares are tradable, and are sold to individual citizens and institutional investors.<sup>11</sup> As of February 2005, non-tradable shares account for 63.51% of all outstanding stock. Approximately 70% of all non-tradable shares are held by state-owned enterprises.

Because controlling block holders generally cannot trade their stocks, the benefit they derive from stock price appreciation is limited, thus increasing the incentive for deriving benefits through other channels (i.e., tunneling). The weak legal and corporate governance structure in China provides them such opportunities. As MacNeil (2002) observed, courts in China have a long tradition of protecting State interests and have little experience with private plaintiff-driven litigation.

The use of corporate loans, in particular, has an aura of legitimacy that other forms of tunneling do not enjoy. Culturally, the practice is viewed by some as a “family loan,” in recognition of the sacrifices and benefits extended to the listed company by its unlisted “affiliates.”<sup>12</sup> Practically speaking, an inter-corporate loan is also a convenient vehicle for transferring funds directly from the listed company to entities

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eliminate fundamental agency problems that lead to tunneling behavior.

<sup>11</sup> The tradable shares are further subdivided into Tradable-A shares, which are publicly traded among domestic investors, and *foreign* (B, H, and N) shares. B-shares are available to foreign investors and are traded on the two domestic exchanges, whereas H and N shares have an overseas listing. In this study, the market price of a listed company refers to the price of its Tradable-A shares.

<sup>12</sup> To appreciate this point, it is helpful to recognize that the listing process in China is arduous and highly competitive. According to a January 17, 2003 communiqué from China’s National Bureau of Statistics, only 1,160 out of a total of 369,000 state-owned firms were selected for listing. To increase the likelihood of approval, many SOE’s carved out the most profitable and successful portions of their business, and “re-assigned” various administrative burdens – hospitals, non-profitable divisions etc. – to other business units. Thus the idea that the listed firm should “send money home” does not strike some as unreasonable, or inconsistent with cultural expectations.

affiliated with the controlling block holder.

## *II.2. International Evidence*

Although the negative effect of large shareholder tunneling is widely discussed, few studies have provided empirical evidence on its magnitude and impact. The earliest international tunneling studies simply discuss the problem through illustrative case studies (e.g., Johnson et al (2000)). Later studies infer the existence of tunneling indirectly, either by linking ownership structure to the market valuation of a firm's equity (e.g., Bae et al (2002), Bertrand et al (2000), Faccio et al (2001)), or changes in market value during the Asian crises (Lemmon and Lin (2003)).

For example, Bae, Kang and Kim (2002) use evidence from mergers by Korean business groups to show that controlling shareholders tend to make acquisitions that enhance the value of other firms in the group, to the detriment of minority shareholders. In this study, the main analyses involve a comparison of the price paid in intra group deals to the price paid in a control sample. Similarly, Bertrand, Mehta, and Mullainathan (2000) use data on Indian business groups to show the tunneling of resources by the largest shareholder within one Indian business group. Finally, Lemmon and Lin (2003) examine the effect of ownership structure on firm value during the Asian financial crises. They find crisis period stock returns of firms in which managers have high levels of control rights, but have separated their control and cash flow ownership, are 10-20 percentage points lower than those of other firms.

In all three studies, the key finding is that a firm's ownership structure has a predictable directional effect on firm value, a fact that is consistent with insiders' expropriation of minority shareholders. In each instance, the existence of tunneling is inferred from the market valuation of a firm's equity, or changes in market value during a particular time period (i.e., the Asian crises). In this sense, the evidence is

relatively indirect and the ability to conduct detailed analyses of tunneling behavior is quite limited.

### *II.3 China Studies*

A number of studies have documented weaknesses in China's legal and financial system (e.g., see Liu (2005)), and the mitigating effect of regulatory changes. In particular, Allen et al. (2005) argue that the rapid growth in the Chinese economy is driven largely by her Private Sector, and that growth in the Listed Sector (publicly listed firms) has been hampered by poor legal and financial mechanisms. Berkman et al (2005) provide supporting evidence in the form of an event study of four regulatory changes intended to improve the protection of minority shareholders from expropriation from controlling shareholders. Their results show that these new regulations significantly increased firm value, and that firms with weak governance benefited more.

Three other studies examine the effect of ownership structure and corporate governance on firm valuation in different settings. Fan et al. (2007) report that post-IPO stock returns are lower for firms run by politically-connected CEOs, suggesting that these CEOs do not enhance firm performance, and rather tend to fulfill political aims detrimental to shareholder value. Cheung et al. (2006) examine a sample of related party transactions between Chinese listed firms and their controlling SOEs. Their evidence suggests that political connections are not typically beneficial for minority shareholders. In the same spirit, Bai et al. (2003) construct a corporate governance index using data from firms' annual reports, and show that investors generally pay a premium for well-governed firms in China. A consistent theme across all these studies is that improved governance is valuable in China's current emerging economy.

Two recent studies have explored the effect of ownership structures on earnings management. Liu and Lu (2002) document a positive relation between a firm's reported accruals and the largest shareholder's interest in the company, as well as a CEO entrenchment measure. They interpret this evidence as being consistent with greater agency problems for companies with powerful shareholder control and CEOs that have a greater personal interest in the company. Chen et al. (2003) explore the role of the government in helping to facilitate earnings management in Chinese firms. Their evidence indicates that local government entities actively assist listed firms in earnings management through favorable asset-related transfers, so as to meet the regulation stipulated by the central government.

Two other studies that examine large shareholder incentives to tunnel or prop up the shares of a company by focusing on transactions with connected entities. In an event study setting, Peng et al. (2006) show that the market reaction to connected transaction announcements is negative when the listed firms are in sound financial condition (supporting the tunneling hypothesis). In contrast, the market reaction to connected transactions is on average positive when the listed firms are in financial distress (supporting the notion that the large shareholders sometimes use these transactions to prop up the value of listed firms). In a similar spirit, Jian and Wong (2006) provide evidence that corporate insiders use related party transactions to prop up earnings and tunnel resources from firms. Specifically, they show that these transactions are used to meet regulatory earnings targets. They also provide some evidence that more propping leads to more tunneling, and that this relation is stronger among local government owned firms.

In summary, a number of recent studies have shed light on corporate governance and earnings management problems in China. To the extent that these studies highlight China's weak governance environment, they help us to understand the incentives for tunneling and earnings manipulation. Our paper is complementary to these studies,

in that we demonstrate the importance of a tunneling perspective in understanding management behavior in China. In fact, we believe the economics of tunneling provide an essential framework for interpreting many forms of company behavior, including “propping” and earnings management.<sup>13</sup>

### **III, Empirical Analysis**

#### *III.1 Sample Description*

Our sample consists of 1,377 public companies, listed on the Shanghai and Shenzhen stock exchanges during the period 1996 to 2004. We use the CCER China Stock Database, provided by *SinoFin Information Services*, to obtain fundamental variables, price and returns information. To be included in our sample, a company must have been listed for at least one year, and have filed the necessary financial information required for our analysis. Collectively, as of the end of 2004, our sample of companies represents 85.6% of the total listed firms (85.2% of the total market capitalization) in China.<sup>14</sup>

Table I presents some descriptive statistics for our sample. In total, we have 7,557 firm-year observations. Chinese firms all have December year-ends, and the financial information for year  $t$  is based on fiscal year-end  $t-1$  financial reports. Panel A reports the log of total assets (SIZE); market capitalization as of the fourth month after the fiscal year end in millions of RMB (MV); the book-to-market ratio measured four months after the fiscal year end (BM); total leverage, defined as total liabilities divided by total assets (LEV); return-on-assets, defined as pre-extraordinary income divided by total assets (ROA); other receivables in millions RMB (OREC); other

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<sup>13</sup> For example, both Jian and Wong (2006) and Liu and Lu (2002) find that the pattern of earnings management observed among Chinese firms is consistent with an abiding desire to facilitate large shareholder tunneling.

<sup>14</sup> Throughout the paper, market capitalization (MV) refers to the value of tradable shares multiplied by the total number of shares outstanding, both tradable and non-tradable.

receivables deflated by total assets (ORECTA); and the percentage of shares controlled by the largest shareholder (BLOCK). All variables are winsorized at 1% and 99%.<sup>15</sup>

Panel A shows that the average market capitalization for our sample is 3.15 billion RMB (approximate 381 million US dollars, using the prevailing exchange rate of 8.27 during our sample period). Most of these firms traded at a multiple of 2.5 to 5 times book (BM), and had reported ROA's of between 1% and 6%. Of particular interest is that most had substantial "Other Receivables" on their balance sheets (ORECTA) – the inter-quartile range for this variable is between 1.7% and 10.8% of total assets. As expected, the largest shareholder controls a substantial portion of these firms – the inter-quartile range for the BLOCK variable is 29.2% to 58.2%.

Panel B reports year-by-year statistics for ORECTA. This panel shows that Other Receivable as a percent of total assets has been on the decline over the sample period. As we show later, the decline coincides with a concerted campaign by the China Securities Regulatory Commission (CSRC) to reduce these loans.<sup>16</sup> Nevertheless, even by the end of 2004, the median firm still reported an "Other Receivable" balance representing 2.4% of total assets. By definition, these loans are not part of ordinary business transactions, and a casual survey of the financial footnotes show that they are typically made to related parties, often associated with the largest shareholder. However, this account also can contain miscellaneous receivables from parties not immediately identifiable with the controlling block holder.

Appendix 1 presents a case study that illustrates the problem. The HANQI Group is the largest shareholder of FENG HUA, holding a bit less than 30% of its shares.

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<sup>15</sup> All key results are robust to alternative winsorization techniques, including cross-sectional winsorization each year, winsorizing the entire sample, and no winsorization.

<sup>16</sup> Appendix 5 shows that the CSRC tried to curb these practices as early as 2001, but its early efforts were largely ignored.

From early 2002, the HANQI Group (including its subsidiaries HANQI Real Estate, and Beijing HANQI) “borrowed” large amounts of money from FENG HUA.

Appendix 1 contains excerpts from FENG HUA's financial statements. To gain a sense for the magnitude of these borrowing, on December 31, 2002, HANQI's share of equity in FENG HUA is RMB 116.21 millions. On that date, it and its subsidiaries borrowed from FENG HUA a total of 198.6 millions. FENG HUA never recovered any of the money due from HANQI Group or its subsidiaries. Subsequently, FENG HUA stock was put into Special Treatment (ST) status as a result of reporting two consecutive annual losses.<sup>17</sup>

In terms of financial reporting, the money that large shareholders owe the listed company is included in a data item called “Other Receivables” (OREC), which in this instance also included several other large items not directly traceable to HANQI.

Unlike trade receivables, which are separately reported under the customary title of “Accounts Receivables”, these corporate borrowings are not part of ordinary business transactions, and are thus separately flagged in the report.

### *III.2 Large Share Holders and OREC*

To better understand the extent to which “other receivables” is used as a vehicle for large shareholder tunneling, we selected twenty firms from the top decile ranked by ORECTA as of December 31, 2002, and conducted a more detailed analysis of the composition of this variable. Appendix 2 presents the “other receivable” balance of these twenty firms. On average, other receivables account for 40.4% of these firms' total assets, and 51.4% of gross other receivables are due from the largest shareholders alone. This evidence indicates a substantial portion of the ORECTA balance is typically attributable to loans to large shareholders. Interestingly, some of the economic fallout from large shareholder “borrowings” is also apparent from these twenty firms: fourteen out of twenty received unclean auditor's opinion on their 2002

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<sup>17</sup> Because Chinese firms rarely go into actual bankruptcy, ST status can be regarded as a comparable measure of financial distress.

annual reports, and twelve were subsequently “specially treated.” We investigate these issues in more detail later in the paper.

To further explore the link between large block holders and ORECTA, we secured hand collected data used by Ye (2006). From financial footnotes, Ye derived Other Receivables due from controlling shareholders and its affiliated companies for all manufacturing firms listed in the Shanghai Stock Exchange between 1999 and 2002 (a sample of 1134 firm-years, or approximately 30% of our full sample during these years). For each year between 1999 and 2002, we sort all listed Chinese firms annually into ten deciles based on ORECTA (full sample). We then use the Ye (2006) data to examine the proportion of OREC in each decile directly traceable to the majority shareholder and its affiliates.

Appendix 3 reports the number of firm-years in Ye (2006) captured by each ORECTA decile in our full sample. Column 3 shows that the Ye sample is quite evenly spread out over our full sample. Column 4 shows that the average ORECTA balance from the Ye sample also closely approximates the average for the full sample. Columns 5 and 6 report the total gross OREC and the large shareholder gross receivable (LSH Gross OREC) derived from the Ye (2006) data set, and Column 7 reports LSH receivable as a percentage of total gross OREC.

Overall, this evidence shows that a substantial portion of OREC is directly traceable to the largest shareholder and its affiliates, particularly for firms in the high ORECTA deciles. For example, firms in the top 3 deciles by ORECTA (full sample) have 30 to 40 percent of its OREC balance directly traceable to the majority shareholder or affiliates. Moreover, the proportion owed by LSH decreases monotonically across the ORECTA deciles, further indicating that problem of large shareholder tunneling is also likely to decrease in severity in the lower ORECTA deciles.<sup>18</sup>

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<sup>18</sup> To further ascertain the extent to which the Ye (2006) sample is representative of the full sample, we checked a number of other firm characteristics. The details are not reported but are available on



As a final check, we compared our OREC measure to the amount of inter-corporate loans to controlling shareholders reported in an official list of 189 firms identified by the Shanghai and Shenzhen Stock Exchanges on June 1, 2006. These 189 firms were flagged by the two exchanges as those in which the problem of controlling shareholder tunneling is most severe. We collected the amount of OREC from the 2005 annual reports of these 189 firms, and found the Pearson correlation between our OREC measure and the amount of LSH OREC reported on this official list to be 73.7%. Moreover, 43.75% of these firms were in the highest 2005 ORECTA decile; 81% of these firms belong to the top three deciles, and nearly 90% were in our top four ORECTA deciles.

Collectively, the evidence thus far strongly suggests that by ranking firms using ORECTA, we have a good empirical proxy for the degree of inter-corporate lending to the controlling shareholder and its affiliates. In the following analyses, we aim to better understand the nature and economic consequences of these loans.

### *III.3 The Persistence of ORECTA*

To better understand the nature of these receivables, we sort firms into ten deciles based on ORECTA, and trace the evolution of this variable through time. Figure 1A reports the mean ORECTA for each decile in year  $t$  through  $t+3$ , and Figure 1B reports the average decile ranking for the same four-year horizon.

The main result from these analyses is that cross-sectional rankings of firms by ORECTA tend to be quite persistent over time. In other words, firms with larger (smaller) "Other Receivable" balances tend to remain in the upper (lower) end of the

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request. In brief, the Ye firms are not significantly different from the rest of the firm-years in our sample in terms of Size, BM, and ROA. However, the Ye sample shows slightly higher state ownership (34.95% versus 31.55%) and lower ORECTA (7.67% versus 8.88%). In the current context, these differences are likely to understate the extent to which ORECTA is attributable to the majority shareholder and its affiliates in the Ye sample.

ORECTA over the next three years. For firms in the highest ORECTA decile in year  $t$ , the average "Other Receivable" in year  $t+3$  is still 20% of total assets.

This evidence is consistent with the long-term nature of the receivables. Specifically, it suggests that the receivable is a more or less permanent part of the companies' portfolio of reported assets. Cast in a different light, this evidence shows that listed Chinese companies are routinely engaged in the practice of extending long-term credit in large quantities to their largest shareholder.

#### *III.4 Economic Consequences*

In this section, we explore the economic consequences of large OREC balances. Specifically, we examine the implications of large ORECTA balances for firms' future operating performance and the likelihood of experiencing financial distress.

Table II Panel A reports the results of a regression in which the dependent variable, FROA, is the year  $t+1$  return on asset. Independent variables include the current year return-on-asset (ROA), and a rank variable, R\_ORECTA, based on ranking current year ORECTA of all firms into ten deciles, scaled to be between 0 and 1. In addition, we use a number of other control variables: LEV is the total liability divided by total assets, SIZE is log of total assets, NEG is a dummy variable, which takes 1 if current year net income is negative and 0 otherwise; we also control for firm and year fixed effects.<sup>19</sup> The results show that R\_ORECTA has a strong negative relation to future ROA, after controlling for other variables (T-statistic = -8.5). In other words, controlling for current ROA, higher ORECTA firms earn lower future ROA. The difference between top and bottom decile ORECTA firms' expected ROA is 4.9%.

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<sup>19</sup> None of the main results are affected if we only control for annual fixed effects (i.e. exclude firm fixed effect indicator variables). Also, we obtain very similar results if we use return-on-sales (ROS) rather than return-on-assets (ROA) as the performance metric in this analysis.

In Table II panel B, we use a LOGIT model to estimate the effect of ORECTA on the probability of firms coming “Special Treated” (attaining ST status) in year  $t+3$ . For this analysis, the dependent variable is a dummy variable, which takes 1 if the firm was specially treated and 0 otherwise. Independent variables include R\_ORECTA and other control variables for predicting financial distress. ROA is operating income divided by total assets, ATURN is asset turnover, SG is sales growths from the last year, OCF is operating cash flow divided by total assets, NONOPERAT is non-operating income deflated by total assets, and BLOCK is the percentage of shares held by the largest shareholder. Because we use variables in year  $t$  to predict special treatment in  $t+3$ , our sample size in Panel B reduces to 5,668 observations.<sup>20</sup>

Panel B reports the results of two LOGIT models. In the first regression, we use all the independent variables except R\_ORECTA. The results show that ROA, ATURN, LEV, OCF, SIZE, and BLOCK all have some incremental power to predict future ST status. In the second regression, we add R\_ORECTA to the model, and find that it enters the regression with a strongly positive coefficient. In fact, aside from current year ROA, R\_ORECTA is the single most important predictor of subsequent ST status.

Figure 2 provides a graphic illustration of this result. To construct this figure, we sort firms annually into ten deciles based on the magnitude of their reported ORECTA. This figure depicts the proportion of firms in each decile that received ST status two years after the formation of the deciles. The results show that a high proportion (14%) of the firms in the top ORECTA decile in year  $t$  will receive ST status in year  $t+3$ . This compares to an average of around 4% to 5% for the rest of the sample. In fact, the next two deciles sorted by ORECTA also exhibit higher than average

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<sup>20</sup> We predict ST status for year  $t+3$  because firms that attain this status will have reported two consecutive years of losses. We skip two years to avoid a peek-ahead bias. As a robustness check, we also used year  $t+2$  and  $t+4$  ST status as the dependent variable and found similar results.

tendency to receive ST status.

Overall, these results show that firms with high ORECTA balances perform worse in terms of operating performance, and are much more likely to become a candidate for delisting in future years. In the next section, we examine the extent to which market prices reflect these adverse consequences.

### *III.5 Market Pricing and Returns Prediction*

Table III presents an analysis of the impact of tunneling on firm valuation. The dependent variable for this analysis is MVTA, defined as the market value of the firm at the end of the fourth month after fiscal year end, deflated by total assets. The independent variables are: BVTA, defined as book value deflated by total assets; ROA, defined as the return on total assets; R\_ORECTA, the scaled decile rank based on ORECTA (i.e., R\_ORECTA=1 for firms in the highest ORECTA decile, and R\_ORECTA=0 for firms in the lowest decile), and ROA\_ORECTA, an interaction term. To compute this last variable we multiply ROA by R\_ORECTA. We also include dummy variables to control for firm and year fixed effects. Because TA scales all the continuous variables, we are effectively regressing MV on BV and Earnings, plus two ORECTA-based variables. To the extent that the market applies a greater discount to the earnings of high-ORECTA firms, we would expect the coefficient on ROA\_ORECTA to be negative.

The results show that this is indeed the case. As expected the coefficients on both BVTA and ROA are positive. The coefficient on R\_ORECTA is, surprisingly, not significant in Model 1 and reliably positive in Model 3, suggesting that the market does not generally value high ORECTA firms at a discount. However, the coefficient on ROA\_ORECTA is reliably negative in both Models 2 and 3. Indeed, the coefficient estimates from Model 2 suggest that for the highest ORECTA decile

firms, the market essentially assigns a multiple of zero to reported earnings (12.4 - 14.3). Conversely, for low ORECTA firms, the multiple on earnings is 12.395.

Table IV examines the usefulness of ORECTA in predicting future returns. Panel A presents future monthly size-adjusted returns (in percentage) for deciles formed on ORECTA. In each year between 1996 and 2004, we sort firms into ten deciles based on ORECTA. We then compute future returns begin from May 1 (year  $t+1$ ) through April 30 (year  $t+2$ ). Table values represent the average monthly equal-weighted size-adjusted returns for each portfolio.<sup>21</sup>

In panel B, we compute risk-adjusted returns using a Fama-McBeth procedure as follows: Every month we regress monthly returns on  $R\_ORECTA$ ,  $R\_MV$  (scaled decile rank of market value at the end of April ( $t+1$ )),  $R\_BM$  (scaled decile rank of the Book-to-Market ratio) and  $R\_LEV$  (scaled decile rank of leverage, defined as total liability divided by total assets). In total there are 108 months. Panel B reports the mean of these monthly coefficients and the t-statistics associated with their time-series variation.

The evidence in both panels supports the view that ORECTA is negatively correlated with future returns. Panel A shows that low-ORECTA firms generally earn higher returns than high-ORECTA firms. The pattern is not monotonic across the deciles. However, the difference in monthly returns between the top and bottom ORECTA firms is 1.014% per month ( $T=7.36$ ). Panel B results show that this negative correlation with future returns is robust to the inclusion of market capitalization (MV), book-to-market (BM), and leverage (LEV).

Table V examines the consistency of this result year-by-year. Table values represent returns to a hedge strategy that buys the low-ORECTA decile portfolio and sells the

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<sup>21</sup> To compute size-adjusted returns, we subtract the average return for the firms in the same size decile each month. Size decile returns are as reported by the CCER database.

high-ORECTA portfolio. We use four measures of abnormal returns, adjusting for different benchmark portfolios. In computing abnormal returns, we use four different benchmarks to adjust for alternative measures of risk. ARET1 is the hedge return where each firm's abnormal return is computed relative to a reference decile portfolio formed on the basis of its market value of tradable shares (size-adjusted); ARET2 is abnormal returns relative to portfolios formed on deciles of firm beta (beta-adjusted); ARET3 is relative to an equal-weighted market index (EW-index); ARET4 is relative to a value-weighted market index for tradable shares of both the Shanghai and Shenzhen markets (VW-index). Reported t-statistics are based on the time-series variation in annual abnormal returns.

Table V shows that high-ORECTA firms consistently underperform low-ORECTA firms regardless of the benchmark. The spread between the high and low ORECTA firms is most pronounced in the second half of the sample period (2000 to 2004). This is not surprising, as the problems engendered by large shareholder tunneling is brought to light primarily during the post-2000 bear market. During this sub-period, high-ORECTA firms underperformed low-ORECTA firms by 1.14% to 1.44% per month, depending on the benchmark.

### *III.6 Ancillary Tests*

In this section, we examine cross-sectional factors that could affect the severity of the tunneling problem across firms. Our first test is motivated by international evidence that tunneling is most problematic when the block holder's controlling right (C) is much larger than her ownership right (O).<sup>22</sup> The intuition is straightforward: as the C/O ratio increases, the controlling shareholder derives relatively greater benefit from tunneling activities.

Consistent with this intuition, Claessens et al. (2002) show that firm value across

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<sup>22</sup> See, for example, Lemmon and Lin (2003) and Claessens et al. (2002).

eight Asian economies is increasing in the largest shareholder's cash-flow ownership (O), but decreasing in her control rights (C). In the same spirit, Lemmon and Lin (2003) show that the decline in firm value during the Asian crisis follow a similar pattern. Because neither study had a direct measure of tunneling, both relied on firm values (i.e., invoke rational pricing assumptions) to infer this behavior. The use of a direct empirical proxy for tunneling allows us to provide new evidence on this issue.

Figure 3 illustrates the relationship between ORECTA and BLOCK (the percentage of shares outstanding held by the largest shareholder). To construct this graph, we sort firms each year into 10 deciles based on the percentage of common shares held by the biggest shareholder (BLOCK). We then calculate the median of ORECTA in each decile. The figure depicts the distribution of ORECTA in each BLOCK decile. The X-axis is decile rankings based on BLOCK. BLOCK values are on the left Y-axis, ORECTA values are on the right Y-axis.

Consistent with prior studies on large shareholder incentives, we find that the use of ORECTA is most pervasive when the block holder's controlling right (C) is much larger than her ownership right (O). Specifically, Figure 3 shows that ORECTA balances are highest when the controlling shareholder holds less than 30% of the shares. In fact, in the top BLOCK decile (where the controlling shareholder owns over 70% of the cash-flow rights), ORECTA balances are quite low (close to 2% of total assets).

Table VI provides a more comprehensive analysis of factors that could affect the severity of the tunneling problem across firms. The dependent variable in this analysis is ORECTA. The independent variables are: BLOCK; SIZE (log of total assets); STATE (a dummy variable that takes the value of one if the largest shareholder is any level of government or any government-owned institution); MARKETIZATION (a comprehensive index measuring the development of the regional market in which the firm is registered (see Fan and Wang (2004)), where

higher values indicate greater regional market development; and LAYER (the number of intermediate layers between the company and its controlling owner through the longest pyramidal chain (see Fan, Wong, and Zhang (2007)). We also include industry and year fixed effect dummies.

Model 1 reports the result when only BLOCK and SIZE are included as explanatory variables. Consistent with the univariate analysis, BLOCK has a strong negative relation with ORECTA. Model 2 adds STATE and shows that this form of tunneling is worse when the controlling shareholder is not a state-owned enterprise. Non-state entities that control listed firms include regional collectives and private entrepreneurs. Our evidence suggests that, on average, companies controlled by these entities tend to have larger ORECTA balances.

Model 3 adds MARKETIZATION and shows that the tunneling problem is marginally attenuated if the firm is located in a more developed region of the country. Finally, Model 4 shows that the number of layers of ownership in the pyramidal structure is not related to the level of ORECTA. Overall, the results of these regressions confirm the earlier finding that BLOCK is strongly negatively correlated with ORECTA. At the same time, it shows that SIZE, STATE, and MARKETIZATION also contributes in explaining the degree of tunneling across firms.

Some prior studies (e.g., Allen et al. (2005)) allege that weakness in the audit profession is at least partially to blame for China's corporate governance woes. We attempt to shed some light on this issue by examining a few sample audit reports and by assessing the large sample relation between audit qualifications and ORECTA balances. Appendix 4 presents two sample auditor reports that illustrate the range of language used by auditors to express their concern with firms' tunneling activities (the original opinions were in Chinese and available upon request, we provide a translated version). Case A is a denial of opinion; Case B is a qualified opinion with an



explanatory paragraph. In both instances, it is clear that the auditor had serious reservations about the legitimacy of the “Other Receivables” balance. For our analyses, both reports are treated as “qualified.”<sup>23</sup>

In Table VII Panel A, we examine the extent to which ORECTA balances are related to the likelihood of receiving an audit qualification. In this test, we use a LOGIT model where the dependent variable, Q, equals 1 if the firm receives a qualified audit opinion and 0 otherwise. LQ (lagged Q) is the corresponding auditor opinion variable in the previous year. AR is accounts receivable deflated by total assets. ORECTA is as defined earlier.

The Model 1 results in Panel A show that ORECTA is highly significant, and positively correlated with the probability of receiving a qualified opinion. In terms of its ability to predict the likelihood of a qualified opinion, it is more important than any other variable, including ROA and LEV. Model 2 shows that, even after including LQ (lagged Q), ORECTA is still highly significant. Evidently auditors are well aware ORECTA balances, and are willing to issue unclean opinions for high ORECTA firms.

Figure 4 offers a graphical depiction of this result. This graph shows that 45% of all firms in the top ORECTA decile receive unclean opinions. The probability of an unclean opinion declines almost monotonically across ORECTA deciles, such that only around 5% of the firms in the lower deciles receive unclean opinions. Once again, the evidence is consistent with auditors playing a monitoring role with respect to tunneling activities using corporate loans.

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<sup>23</sup> Of course, qualified audit opinions could be issued for reasons unrelated to high ORECTA balances. We do not make this distinction in our tests. Rather, we simply examine the extent to which ORECTA balances are related to the likelihood of receiving an audit qualification.

As a final test, we examine the effect of a qualified opinion on subsequent tunneling behavior. Panel B of Table VII reports a regression of ORECTA in year  $t+1$  on current year ORECTA, and dummy variable Q, as well as other control variables. If firms curtail their tunneling activities after receiving a qualified opinion, we would expect the coefficient on Q to be negative. Instead, we find that the Q coefficient is positive and significant, indicating that firms are more likely to increase their ORECTA balance after a qualified opinion. This counter-intuitive result could be due, in part, to the fact that some firms charge an interest balance on the loans. The interest, which is also typically not repaid, simply increases the outstanding loan balance. In any event, we find no evidence that firms receiving a qualified opinion in year  $t$  will reduce their use of OREC as a vehicle for tunneling in the next period.

### *III.7 The Long Road to Regulatory Reform*

Thus far our analysis highlights a chronic problem that affected many listed firms in the Chinese market during the 1996 to 2006 time period. In Appendix 5, we document the regulatory efforts to curb this abuse. We provide a brief annotated discussion of these rules and regulations here.

#### **Opening Rounds (Pre-2004)**

As we outline in this Appendix, efforts to reduce OREC balances began as early as 2001, when the CSRC issued a (largely ignored) request to listed companies to stop the practice of lending to controlling shareholders. Coincidentally, 2001 was the first year that the Chinese stock market showed clear signs of being in a serious decline (a bear market that would last until 2006).

By August 2003, the CSRC had issued explicit instructions calling for an end to loans

by listed companies to controlling shareholders (CSRC Rule 2003-56). In fact, the same ruling required listed companies to reduce their OREC balances to their controlling shareholder by 30% per year. This ruling was also largely ignored, perhaps because the CSRC had no legal means of enforcing punitive action against the controlling shareholders, most of whom were not publicly listed firms.

### **The Middle Game (2004-2005)**

In January 2004, against the backdrop of a bleak 3-year-old bear market, the State Council issued Directive 2004-3, titled “On the reform and development of capital markets.” A section of this directive specifically addresses the problem of tunneling, and states “we must prevent controlling shareholders from embezzling listed company assets, and punish those who did.” This directive provided the CSRC a much needed mandate to take action against controlling shareholders.

In July 27, 2004, recognizing the difficulties most controlling shareholders will have in making repayments, CSRC proposes “Debt for Equity Swaps”, whereby the controlling shareholder may (subject to approval) repay the amount owed by exchanging the loan for their equity position in the listed company.

In June 6, 2005, CSRC Rule 2005-37 spelled out explicit non-compliance penalties. Perhaps most importantly, the rule states that in 2006, CSRC will disclose the names of all controlling shareholders who still owe balances of 100 million or more RMB as of December 31, 2005, as well as the names of the chairperson of the controlling entity. This is the first time the top person in the controlling entity is implicitly held personally liable for these funds

In November 1, 2005, with the stock markets still in a swoon, the State Council issued a Directive on Behalf of CSRC. Broadly titled “On Improving the Quality of Listed Companies”, this directive acknowledged that the listed companies are in bad shape,

and prescribed a sweeping list of changes to corporate governance and disclosure rules (targeting controlling shareholders). In particular, this directive set December 31, 2006 as a date by which all OREC from controlling entities and their affiliates must be repaid. Moreover, it states that the top management of controlling shareholders or colluding firms will be personally punished, if such payments remain outstanding by the end of 2006.

### **The End Game (2006)**

November 7, 2006, in an unprecedented move, eight government ministries issued a joint announcement, making it clear that the top management of controlling entities will be fired from their post and face disciplinary punishment if the December 31, 2006 deadline for repayment is not met. These ministries represent a broad spectrum of governmental agencies that, collectively, had the power to ensure the top management of controlling shareholders will be arrested if necessary.

By December 31, 2006, 399 listed companies managed to resolve OREC balances totaling 39 billion RMB. Another 17 listed companies, with OREC balances totally 9.2 billion RMB, failed to resolve their loans. In 10 out of these 17 companies, top management of the controlling entity or colluding entities, were arrested – thus bringing to a close an extraordinary chapter in security regulation history.

### **IV. Summary**

This study documents the widespread use of corporate loans by controlling shareholders to extract funds from Chinese listed companies. Typically reported as "Other Receivables" (OREC), these loans represent a substantial portion of the reported assets of Chinese firms. We show that these loans are of a long-term nature, and that they are typically made to parties related to the controlling shareholder, and that they were used extensively to transfer funds out of hundreds of Chinese firms in the 1996 to 2006 time period.

We also find that firms with large OREC-to-total-asset (ORECTA) balances experience worse future operating performance and are much more likely to become candidates for delisting. Market participants seem to anticipate these negative outcomes to some extent, in that the market applies a higher discount rate to the earnings of high-ORECTA firms. However, the market pricing of this information appears incomplete, in that high-ORECTA firms still earn negative risk-adjusted returns over the next 12-months.

Consistent with prior studies, we find this form of tunneling is most severe when the block shareholder's controlling right (C) is significantly larger than her ownership right (O). Specifically, we find that ORECTA balances are highest in firms where the controlling shareholder's cash-flow ownership right (O) is less than 40%. As the controlling shareholder's ownership right increases, the incentive to tunnel diminishes and so does ORECTA. We also find that the severity of the tunneling problem is greater for smaller, non-state-owned firms, particularly if they are located in regions of the country that are less economically developed.

We also evaluate the monitoring role of auditors. Specifically, we show that the level of ORECTA is strongly associated with the likelihood of receiving a qualified audit opinion. In fact, 45% of the firms in the highest ORECTA decile receive a qualified opinion (compared to less than 5% among low ORECTA firms). However, firms that receive a qualified opinion in year  $t$  show no inclination to reduce their ORECTA balance in year  $t+1$ . These findings show that auditors do play a monitoring role, but absent effective regulatory enforcement action, unclean audit opinions alone are insufficient to deter tunneling behavior.

Finally, we document the long and arduous efforts by the CSRC and other regulators to put an end to this particular form of tunneling. We show that between 2001 and the end of 2006, numerous rulings, directives and other edicts were issued. These

efforts culminated in an unprecedented eight ministry joint statement in November 2006 which threatened personal action against the top management of controlling shareholders unless all inter-corporate loans from listed companies are repatriated by December 31, 2006. This unusual show of political resolve finally forced the repatriation of most of the remaining OREC balances – which, even as late as 2006, amounted to close to 50 billion RMB, involving over 400 firms.

Overall, our findings provide a portrait of the nature and severity of the tunneling problem in China, and the on-going challenges associated with regulatory reform in this major emerging economy. Our evidence shows that this form of tunneling was pervasive throughout the Chinese Listed Sector, and carries serious economic consequences for the firms involved. These findings dovetail nicely with international evidence on the cross-sectional determinants of the incentives for tunneling – specifically, it is positively correlated with a firm’s C/O ratio. However, unlike prior studies that infer the degree of tunneling through firm valuation, we provide an explicit measure and document a tunneling activity of unprecedented scale.

Our analysis is also related to a number of recent studies on corporate governance and earnings management problems in China. To the extent that these studies highlight China’s weak governance environment, they help us to understand the incentives for tunneling and earnings manipulation. Our paper is complementary to these studies, in that we demonstrate the importance of a tunneling perspective in understanding management behavior in China. In fact, we believe the economics of tunneling provide an essential framework for interpreting many forms of company behavior, including “propping” and earnings management.

Looking ahead, although the specific form of abuse associated with inter-corporate loan has ceased, the economic incentives that gave rise to this behavior are still intact. Under China’s recent regulatory reform, controlling shareholders’ holdings have now largely been converted into tradable status. However, the Chinese government

clearly plans to retain control of all state-owned listed companies. At the time of this writing, Chinese laws restrict both the timing and amount of the sale of controlling blocks, and analysts project the lower bound on the government's intended shareholdings to be between 25% and 60% for Chinese firms in most industries.<sup>24</sup>

Given these developments, in spite of the considerable progress made to date, we remain cautious about the resolution of the tunneling problem in China. At least in the foreseeable future, China's Listed Sector will continue to be characterized by concentrated block holdings and dominant controlling shareholders whose benefit from firm price appreciation will be limited. In fact, most controlling shareholders will face an even wider gap between their controlling rights (C) and cash ownership rights (O) – thus potentially increasing tunneling incentives. Until these fundamental agency issues are resolved, we believe the threat of tunneling will remain an on-going problem for Chinese investors and regulators.

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<sup>24</sup> In a May 2006 report, Hualin Securities analyst Fupeng Qi, after analyzing a vast number of regulations, rulings, policy announcements and speeches by government officials, classified listed companies into five groups, and estimated lower bounds on the government's intended shareholding in listed companies for each:

Group 1: Listed companies in industries that are critical to national or economic security, or provide important public goods or services. For this group, the government minimum holding is 60%.

Group 2: Listed companies in important energy or natural resources industries, or major high-tech industries. For this group, the minimum government shareholding is 51%.

Group 3: Listed firms in agriculture, and manufacturing, no less than 35%.

Group 4: Listed firms in highly competitive industries, no less than 25%

Group 5: listed firms in retailing and other service industries, no less than 10%.

Of course, these estimates only apply to controlling shareholders that are state-owned. However, we have no reason to believe non-state-owned block holders will be any more eager to relinquish their controlling positions.

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## Appendix 1: FENG HUA: A Case Study in Large Shareholder Tunneling

The HANQI Group is the largest shareholder of FENG HUA (stock code: 600615), holding a bit less than 30% of its shares. From early 2002, the HANQI Group (including its subsidiaries HANQI Real Estate, and Beijing HANQI) “borrowed” large amounts of money from FENG HUA. The following table contains excerpts from FENG HUA's financial statements. To gain a sense for the magnitude of these borrowing, on December 31, 2002, HANQI’s share of equity in FENG HUA is RMB 116.21 millions. On that date, it and its subsidiaries borrowed from FENG HUA a total of 198.6 millions. In terms of financial reporting, the money that large shareholders owe the listed company is included in a data item called “Other Receivables” (OREC), which in this instance also included several other large items not directly traceable to HANQI. 52.2 millions RMB were written off on December 31, 2004 because Beijing HANQI no longer existed (bankrupt). FENG HUA was subsequently “specially treated (ST)”. All table values are in millions RMB, except percentages. All data is available on SINA finance website.

Reporting Date	Gross OREC	Total Assets	Gross OREC/ Total Assets	Gross OREC from HANQI Group	Gross OREC from Beijing HANQI	Gross OREC from HANQI Real Estate	Total Gross OREC from HANQI	HANQI's % in Gross OREC
<i>Item</i>	(1)	(2)	(1)/(2)	(4)	(5)	(6)	(7)=(4)+(5)+(6)	(7)/(3)
2004-12-31	304.4	693.2	44%	122.2	0	31.7	153.9	51%
2004-06-30	308.0	781.2	39%	122.2	52.2	30.0	204.4	66%
2003-12-31	328.4	804.5	41%	122.2	52.2	30.0	204.4	62%
2003-06-30	362.8	940.4	39%	116.5	52.2	30.0	198.6	55%
2002-12-31	342.9	947.6	36%	116.4	52.2	30.0	198.6	58%
2002-06-30	306.2	1078.5	28%	122.0	52.2	30.0	204.2	67%
2001-12-31	189.6	1084.2	17%		52.2	30.0	82.2	43%
2001-06-30	66.0	1193.9	6%					

## Appendix 2: Twenty Examples of Large Shareholder Receivables

Using ORECTA as of 12/31/2002, we sort all firms into ten deciles, and from the top decile, we chose twenty firms for detailed analysis. This appendix reports the magnitude of corporate loans extended to the largest shareholder alone (not including subsidiaries of the largest shareholder) by each firm. ORECTA is defined as *net* other receivables divided by total assets (column 2). Column 3 and 4 report total *gross* other receivables, and *gross* other receivables due from the largest shareholder alone at the end of 2002. Column 5 shows the latter as a percentage of the former. Column 6 reports the auditor's opinion on 2002 annual report, and column 7 indicates whether the firm is specially treated (ST) or not in 2005. The last column gives the name of the largest shareholder. All data is available on SINA finance website.

	Stock Code	ORECTA	Gross			Auditor Opinion 2002	ST in 2005	Name of LSH
			Total Gross OREC	OREC due from Largest Shareholder	(5)=(4)/(3)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	600670	81.4%	241	133	55.0%	Unclean	ST	Changchun Gaoshida
2	000603	70.2%	140	72	51.8%	Unclean	ST	Guangdong Weida
3	600053	50.1%	980	945	96.5%	Unclean	ST	Jiangxi Zhiye
4	600700	46.5%	507	181	35.7%	Unclean	ST	Meihang Jituan
5	000150	45.9%	316	163	51.6%	Clean	NO	Maikete Jituan
6	600107	45.9%	467	299	64.0%	Unclean	NO	Meierya Jituan
7	600139	40.6%	174	121	69.5%	Clean	NO	Sichuan Dingtian
8	000673	39.0%	186	163	87.9%	Clean	NO	Datong Shuini Jituan
9	000561	37.2%	689	281	40.7%	Clean	ST	Changling Huanghe
10	000509	35.2%	354	70	19.8%	Unclean	NO	Shandong Tongren
11	000620	35.0%	309	110	35.7%	Unclean	ST	Xi'an Shengfang
12	000635	34.5%	192	174	90.8%	Unclean	NO	Ningxia Minzu Huagong
13	000766	34.2%	535	127	23.7%	Clean	ST	Tonghua Sanli Huagong
14	600852	33.8%	362	1	0.2%	Unclean	ST	Sichuan Government SAMB
15	000409	33.7%	130	103	79.5%	Unclean	ST	Guangdong Huali
16	600092	29.6%	342	162	47.3%	Clean	ST	Shanxi Jingmi
17	000573	29.5%	646	523	80.9%	Unclean	NO	Guangdong Hongyuan
18	000555	28.9%	70	32	45.8%	Unclean	ST	Shenzhen Taiguang
19	600136	28.8%	243	70	28.6%	Unclean	NO	Daobo Yangrong
20	000765	28.7%	226	53	23.6%	Unclean	ST	Wuhan Huanxin
Mean		40.4%			51.4%	70% Unclean	60% ST	

**Appendix 3: The Proportion of Large Shareholder Receivables (LSH Gross OREC) within each ORECTA Decile**

This table reports the gross amount of large shareholder receivable as a proportion of total other receivables (OREC) for firms sorted by ORECTA decile. To construct this table, we first sort our full sample of firm-years annually into deciles by ORECTA. We then report aggregate statistics for the Ye (2006) firm-year observations within each ORECTA decile. Ye (2006) hand collected the amount of other receivables due from the controlling shareholder and its affiliates (LSH Gross OREC) for all manufacturing firms listed on the Shanghai Stock Exchange between 1999 and 2002. This table reports the number of Ye observations in each decile, the average ORECTA value, the average LSH Gross OREC value, and LSH Gross OREC expressed as a percentage of total gross OREC.

Full Sample		Ye (2006) Sample				
		Number of Ye (2006) firm-years in full sample deciles	ORECTA	Total Gross OREC	LSH Gross OREC	(LSH gross /Total gross)
ORECTA						
Low	0.56%	139	0.40%	8.38	1.04	6.60%
2	1.62%	156	1.20%	24.40	6.05	14.30%
3	2.74%	115	2.10%	47.15	13.63	16.70%
4	4.01%	112	3.10%	74.66	11.78	15.10%
5	5.37%	103	4.20%	111.16	27.44	19.00%
6	6.99%	95	5.90%	107.58	21.45	22.00%
7	9.13%	104	7.80%	138.67	43.26	24.30%
8	12.10%	105	10.90%	186.06	50.54	30.70%
9	17.22%	109	16.40%	263.91	90.54	30.90%
High	31.97%	96	32.50%	481.44	252.12	42.20%

#### **Appendix 4: Two Auditor's Reports with Unclean Opinion Related to Large Shareholder Tunneling (Author Translation)**

##### **Case A: Auditor's Report Concerning 2004 Annual Report, Shenzhen Heguang Corporation (Stock Code 000864): Denial of Opinion**

To the shareholders of Shenzhen Heguang Corporation:

We are entrusted to audit the consolidated balance sheet, income statement and statement of cash flows of Shenzhen Heguang Corporation as of December 31, 2004. It is the responsibility of the management of Shenzhen Heguang Corporation to prepare these accounting statements.

We note that:

1. The controlling shareholder and its related parties are using large amount of funds of Heguang in 2004. By December 31, 2004, the controlling shareholder and its related parties owe Heguang RMB 597,633,000 Yuan, 432% of Heguang's shareholders' equity. We cannot make a professional judgment on the probability of collecting from the controlling shareholder and its related parties due to lack of evidence of doing so.
2. Shenzhen Heguang Corporation has a few pending lawsuits and arbitration cases against it, thus faces heavy liability burden in the near future. As footnote 11.1 indicates, the company may not be able to meet these obligations in its normal operation.

Because the above-mentioned matters have significant impact on the company, and we cannot ascertain that it is reasonable to assume the company is a going-concern, we cannot issue an opinion on this financial report.

Beijing Jingdu Accounting Firm

Dengshu Tong, Youye Wang, CPA

Beijing, China

April 26, 2005

**Case B: Auditor’s Report Concerning 2005 Semi-Annual Report, HaCi Corporation (Stock Code: 600752): Qualified Opinion with an Explanatory Paragraph**

To the shareholders of HaCi Corporation:

We are entrusted to audit the consolidated balance sheet, income statement and statement of cash flows of HaCi Corporation as of June 30, 2005. It is the responsibility of the management of HaCi Corporation to prepare these accounting statements. Our job is to issue an opinion based on our audits.

According to Generally Accepted Auditing Standards, we conduct our audit to ascertain that there are no material mistakes in the accounting statements. We conducted random checks on the nature and amounts of accounts, and examined evidence of proof. In addition, we evaluated the company’s accounting policies and reasonableness of accounting estimates. We believe our audit has provided sufficient evidence for our opinion.

We believe that this financial report confirms to “Enterprise Accounting Standards” and “Enterprise Accounting Rules”, and reflects important aspects of the company’s operational and financial positions and cash flows by June 30, 2005.

However, we remind users of this report: the company’s current liabilities are greater than current assets, with a working capital balance of –228,577,000 RMB Yuan. Liabilities overdue amount to 350,300,000 Yuan. The company had reported losses in the last three consecutive years, losses amounting to 732,853,300 Yuan. By June 30, 2005, controlling shareholder and its related parties owe the company 642,957,700 Yuan. Courts have frozen part of the company’s assets. In addition, by June 30, 2005, HaCi Corporation has provided loan guarantee for other parties in the amount of 77,000,000 Yuan, and in this amount, 27,000,000 Yuan are for HaCi Corporation’s controlling shareholder.

The company has disclosed measures to tackle these problems, but the going-concern capability of the company is uncertain and in doubt.

Jiangsu Tianhua Dapeng Accounting Firm

Bin Liu, Xingjie Ren, CPA

August 29, 2005

## **Appendix 5: The Long Road to Regulatory Reform**

The following is a list of rules and regulations specifically related to tunneling through inter-corporate loans

### **Early 2001 – CSRC Requirement**

As early as 2001, the China Securities Regulatory Commission (CSRC) issued a general requirement that all listed companies collect their “loans” (OREC) to controlling shareholders, but this requirement was widely ignored.

### **August 28, 2003 – CSRC Rule 2003-56**

This rule prohibits new loans to the controlling shareholder and sets out specific targets and guidelines for reducing existing OREC balances. Specifically, this rule:

- (1) Prohibits listed companies from lending money to controlling shareholders (and their related parties), with or without interest.
- (2) Prohibits listed companies from providing loan guarantees for controlling shareholders and their affiliates.
- (3) Requires listed companies to reduce the money controlling shareholders obtained from them, directly or indirectly, by 30% every year (starting in 2003). Controlling shareholders are required to repay in cash – unless specifically approved by CSRC.
- (4) If this rule is not followed, the management of the controlling entity, if a state agency, would face disciplinary penalty or dismissal; if a non-state agency, may face legal penalty.

Commentary: This rule also was widely ignored, perhaps because the CSRC has no legal authority to implement the penalty provisions against the controlling shareholders, most of whom were not publicly listed firms.

### **January 2004 – State Council Directive 2004-3**

The State Council issued a board directive titled “On the reform and development of capital markets”. A section of this directive specifically addresses the problem of tunneling, and states “we must prevent controlling shareholders from embezzling listed company assets, and punish those who did.” Recognizing that a root incentive for tunneling derives from the non-tradable nature of the block holdings, the same directive called for an end to the non-tradable status for the controlling shares.

Commentary: State Council Directives are rare – the previous one was the 1992 directive that authorized the re-opening of China’s stock exchanges. This directive provided the CSRC with a much needed mandate to take action against controlling shareholders.

### **July 27, 2004 – CSRC Proposes “Debt for Equity Swaps”**

The emboldened CSRC began to recognize that many controlling shareholders simply



did not have enough cash to repay the OREC they owed listed companies. As a result, it proposed that some controlling shareholders (subject to CSRC approval) may repay their loans by applying a debt for equity swap.

#### **June 6, 2005 – CSRC Rule 2005-37**

This new rule repeats the earlier ruling (CSRC 2003-56), but outlines more specific steps for regulators to follow in the case of non-compliance. For example, local bureaus of the CSRC are assigned a list of controlling shareholders, with whom they much work out a repayment method and timetable. Perhaps more importantly, the rule states that in 2006, CSRC will disclose the names of all controlling shareholders who still owe balances of 100 million or more RMB as of December 31, 2005, as well as the names of the chairperson of the controlling entity. This is the first time the top person in the controlling entity is implicitly held personally liable for these funds.

#### **November 1, 2005 – State Council Directive on Behalf of CSRC**

This ruling was written by the CSRC, but issued by the State Council (an obvious effort to lend it greater authority). Broadly titled “On Improving the Quality of Listed Companies”, this directive acknowledged that the listed companies are in bad shape, and prescribed sweeping changes to corporate governance and disclosure rules (targeting controlling shareholders). In particular, it set December 31, 2006 as a date by which all OREC from controlling entities and affiliates must be repaid. Moreover, it states that the top management of controlling shareholders or colluding firms will be personally punished, if such payments remain outstanding by the end of 2006.

#### **November 7, 2006 – Eight Ministry Joint Announcement**

As the deadline approached, it became apparent that the campaign is not going as well as necessary. Therefore, in an unprecedented move, eight government ministries issued a joint announcement, making it clear that the top management of controlling entities will be fired from their post and face disciplinary punishment if the deadline for repayment is not met. These eight ministries are: the CSRC, Ministry of Public Security [Police], State Asset Management Committee [regulating central government SOEs], State Administration for Industry and Commerce [responsible for registering businesses], China Custom, China Tax Authority, Ministry of Commerce, and the China Bank Regulatory Committee. These ministries represent a broad spectrum of governmental agencies that, collectively, had the power to ensure the top management of controlling shareholders will be arrested if necessary.

#### **Epilogue**

By the deadline on December 31, 2006, 399 listed companies managed to resolve OREC balances totaling 39 billion RMB. Another 17 listed companies, with OREC balances totally 9.2 billion RMB, failed to resolve their loans. In 10 out of these 17 companies, top management of the controlling entity or colluding entities, were arrested – thus bringing to a close an extraordinary chapter in security regulation history.

**Table I**  
**Descriptive Statistics**

This table presents firm characteristics for our sample of 7,557 firm-year observations from 1996 to 2004. Our sample includes firms that are listed in China's stock market for at least one year and have necessary financial information. Chinese firms all have December year-ends and financial information for year t is based on fiscal year-end t-1 financial reports. SIZE is the log of total assets; MV is market capitalization of the stock at the end of the fourth month after the fiscal year end (in million RENMINBI); BM is book-to-market ratio; LEV is leverage, defined as total liabilities divided by total assets; ROA is return on assets; OREC is other receivables (in million RENMINBI); ORECTA is other receivable deflated by total assets; BLOCK is the percentage of shares controlled by the largest shareholder. We have winsorized all variables at 1% and 99%.

<b>Variable</b>	<b>N</b>	<b>Mean</b>	<b>Median</b>	<b>Std Dev</b>	<b>Q1</b>	<b>Q3</b>
<b>Panel A: Firm Characteristics</b>						
SIZE	7557	20.966	20.901	0.883	20.363	21.528
MV	7557	3150	2191	3324	1352	3589
BM	7557	0.331	0.276	0.223	0.180	0.421
LEV	7557	0.455	0.455	0.177	0.329	0.581
ROA	7557	0.028	0.034	0.063	0.010	0.058
OREC	7557	123	56	362	21	131
ORECTA	7557	0.081	0.048	0.093	0.017	0.108
BLOCK	7538	0.437	0.426	0.173	0.292	0.582
<b>Panel B: ORECTA by year</b>						
1996	287	0.102	0.086	0.079	0.131	0.045
1997	502	0.117	0.093	0.097	0.160	0.046
1998	702	0.111	0.085	0.093	0.157	0.040
1999	804	0.109	0.075	0.108	0.139	0.035
2000	894	0.098	0.059	0.109	0.125	0.025
2001	1007	0.071	0.039	0.087	0.091	0.016
2002	1055	0.065	0.035	0.082	0.081	0.012
2003	1127	0.056	0.029	0.074	0.069	0.010
2004	1179	0.057	0.024	0.082	0.067	0.008

**Table II**  
**Other Receivables as a Predictor of Future Operating Performance and the Probability of Becoming "Special Treated"**

This table examines the economic consequences of large shareholder tunneling. In panel A, we regress FROA, defined as return of assets in year t+1, on ROA of year t, R\_ORECTA in year t and other control variables. LEV is total liability divided by total assets, SIZE is log of total assets, NEG is a dummy variable, which takes 1 if current year net income is negative and 0 otherwise. R\_ORECTA is a rank variable based on annual ranking of ORECTA into 10 deciles, and is scaled to be between 0 and 1. In panel B, we use a LOGIT model to estimate the effects of ORECTA on the probability of firms becoming "Special Treated" two years later. The dependent variable is a dummy variable, which takes 1 if the firm was specially treated and 0 otherwise. Independent variables include R\_ORECTA and other controlling variables for predicting financial distress. ATURN is asset turnover, SG is percentage sales growths from the previous year, OCF is operating cash flow divided by total assets, NONOPERAT is non-operating income deflated by total assets, and BLOCK is the percentage of shares held by the largest shareholder. Because we use variables in year T to predict special treatment status in t+3, our sample size in Panel B reduces to 5,668 observations.

**Panel A. The Usefulness of ORECTA in Predicting Future ROA**

	Coefficients	T-statistics	P-value
INTERCEPT	0.772	6.740	<.0001
ROA	0.301	9.930	<.0001
R_ORECTA	-0.049	-8.510	<.0001
LEV	0.020	1.660	0.096
SIZE	-0.029	-8.390	<.0001
NEG	-0.022	-4.100	<.0001
Fixed Effect	Firm and Year		
Obs:	7,557		
ADJ-R <sup>2</sup> :	41.41%		

(Table II Continued)

**Panel B: LOGIT model, where the dependent variable is the probability of a firm being in Special Treatment status in Year T+3**

	<b>Coefficient</b>	<b>Chi-Sq</b>	<b>P-value</b>	<b>Coefficient</b>	<b>Chi-Sq</b>	<b>P-value</b>
INTERCEPT	2.403	0.004	0.948	0.132	0.000	0.997
R_ORECTA				1.428	26.705	<.0001
ROA	-28.787	72.547	<.0001	-26.101	58.431	<.0001
ATURN	-1.120	17.798	<.0001	-0.981	13.795	0.000
LEV	1.425	10.337	0.001	1.121	6.173	0.013
SG	-0.227	2.712	0.100	-0.213	2.475	0.116
OCF	-2.582	7.778	0.005	-1.988	4.500	0.034
NONOPERAT	-2.560	0.161	0.688	-3.398	0.292	0.589
SIZE	-0.234	7.156	0.008	-0.167	3.520	0.061
BLOCK	-1.146	7.769	0.005	-0.838	4.006	0.045
Fixed Effects	Industry and Year			Industry and Year		
Observations: 5,668						
PSEUDO-R2:	4.88%			5.36%		

**Table III**  
**The Relation between Other Receivables and Firm Valuation**

This table examines whether market prices take into consideration the negative impact of a large ORECTA balance on future operating performance. The dependent variable is MVTA, defined as market value of the firm at the end of fourth month after fiscal year end, deflated by total assets. The independent variables are: BVTA, defined as book value deflated by total assets; ROA, defined as the return on total assets; R\_ORECTA, the scaled decile rank of ORECTA (i.e., R\_ORECTA=1 for firms in the highest ORECTA decile, and =0 for firms in the lowest decile); and ROA\_ORECTA, interaction term computed by multiplying ROA by R\_ORECTA. \*\*\*, \*\*, and \* signify statistical significance at the 1, 5, and 10% levels, respectively. All regressions include firm and year fixed effects.

<b>Dependent Variable: MVTA</b>			
	Model 1	Model 2	Model 3
INTERCEPT	1.600	0.776	0.676
BVTA	2.238***	2.295***	2.301***
ROA	4.090***	12.395***	14.026***
R_ORECTA	0.105		0.617***
ROA_ORECTA		-14.305***	-16.491***
No. of Observations	7,557	7,557	7,557
Adjusted R <sup>2</sup>	64.92%	66.36	66.63%

**Table IV**  
**The Usefulness of Other Receivables in Returns Prediction**

This table examines the usefulness of ORECTA in predicting future returns. Panel A presents future monthly size-adjusted returns (in percentage) for deciles formed on ORECTA. In each year between 1996 and 2004, we sort firms into ten deciles based on ORECTA for year  $t$ . Table values represent the average monthly equal-weighted returns for each portfolio, computed from May 1 (year  $t+1$ ) through April 30 (year  $t+2$ ). Panel B presents Fama-McBeth cross-sectional regressions of monthly returns on R\_ORECTA, R\_MV (Market Value), R\_BM (Book-to-Market) and R\_LEV (total liability divided by total assets). The four independent variables are decile ranks based on annual ranking of ORECTA, MV, BM and LEV, respectively, scaled to be between 0 (lowest decile) and 1 (highest decile). In total there are 108 months. Panel B reports the mean of these monthly coefficients and the t-statistics associated with their time-series variation.

**Panel A. Returns of Portfolios Based on ORECTA**

Group	Observations	EW-ADJ
1	8978	0.395
2	9039	0.343
3	9065	0.146
4	9051	0.170
5	9016	-0.074
6	9042	0.189
7	9061	-0.096
8	9001	0.008
9	9023	-0.321
10	8825	-0.619
Hedge (1-10)		1.014
		T = 7.36

**Panel B Cross-sectional Regression of Monthly Returns on R\_ORECTA and Other Control Variables**

	Coefficient	T-statistics	P-value
INTERCEPT	0.932	1.191	0.236
R_ORECTA	-0.780	-3.221	0.002
R_MV	-1.356	-2.404	0.018
R_BM	0.543	1.267	0.208
R_LEV	0.238	1.322	0.189

**Table V**  
**Year-by-year Hedge Returns Adjusted for Different Measures of Risk**

This table presents average monthly abnormal returns for a trading strategy that buys an equal-weighted portfolio of firms in the lowest decile of ORECTA and sells an equal-weighted portfolio of firms in the highest decile of ORECTA. Portfolio holdings are rebalanced annually and returns are computed from May 1 (year T+1) through April 30 (year T+2). We present year-by-year results as well as aggregated results for two sub-periods (the bull market of 1996-99, and the bear market of 2000-04). In computing abnormal returns, we use four different benchmarks to adjust for alternative measures of risk. ARET1 is the hedge return where each firm's abnormal return is computed relative to a reference decile portfolio formed on the basis of its market value of tradable shares (size-adjusted); ARET2 is abnormal returns relative to portfolios formed on deciles of firm beta (beta-adjusted); ARET3 is relative to an equal-weighted market index (EW-index); ARET4 is relative to a value-weighted market index for tradable shares of both the Shanghai and Shenzhen markets (VW-index). Reported t-statistics are based on the time-series variation in annual abnormal returns.

	ARET1	ARET2	ARET3	ARET4
1996	0.406	-0.171	-0.049	-0.049
1997	0.011	-0.271	-0.237	-0.237
1998	0.633	0.444	0.546	0.546
1999	0.091	-0.206	-0.234	-0.236
2000	0.873	0.615	0.624	0.629
2001	1.044	1.341	1.516	1.505
2002	1.226	1.419	1.833	1.924
2003	2.505	2.444	2.528	2.520
2004	0.065	0.514	0.654	0.608
Average	0.685	0.613	0.718	0.721
T-test	2.454	1.909	2.091	2.076
96-99				
Bull Market	0.285	-0.051	0.006	0.006
00-04				
Bear Market	1.143	1.267	1.431	1.437

**Table VI**  
**The Determinants of ORECTA**

In this table we examine the determinants of ORECTA. The dependent variable is ORECTA. The independent variables are: BLOCK, defined as percentage of shares held by the largest shareholder; SIZE, the log of total assets; STATE, a dummy variable which takes value one if the largest shareholder is any level of government or any government-owned institution; MARKETIZATION, a comprehensive index measuring the development of the regional market in which the firm is registered (see Fan and Wang (2004)), where higher values indicate greater regional market development; LAYER, the number of intermediate layers between the company and its controlling owner through the longest pyramidal chain, defined following Fan, Wong and Zhang (2007). \*\*\*, \*\*, and \* signify statistical significance at the 1, 5, and 10% levels, respectively. All regressions include industry and year fixed effects.

	Model 1	Model 2	Model 3	Model 4
INTERCEPT	0.440***	0.479***	0.485***	0.482***
BLOCK	-0.075***	-0.068***	-0.067***	-0.069***
SIZE	-0.017***	-0.019***	-0.014***	-0.013***
STATE		-0.013***	-0.019***	-0.018***
MARKETIZATION			-0.001*	-0.002**
LAYER				0.001
No. of Observations	7,479	6,094	5,960	5,874
Adjusted R <sup>2</sup>	12.90%	12.87%	13.06%	13.14%



**Table VII**  
**The Monitoring Role of Auditors**

This table examines the monitoring role of auditors. Panel A tests whether firms with more ORECTA are more likely to receive unclean auditor opinions. We use a LOGIT model where the dependent variable is Q, a dummy variable that equals 1 if the firm receives a qualified audit opinion and 0 otherwise. LQ (lagged Q) is the auditor opinion in the prior year. AR is accounts receivable deflated by total assets. ORECTA is as defined earlier. Panel B examines the effect of a qualified audit opinion on subsequent tunneling behavior. We regress ORECTA in year t+1 on current ORECTA, dummy variable Q, and other control variables. All regressions include firm and year fixed effects.

**Panel A: LOGIT Estimate of the Probability of Receiving an Qualified Opinion**

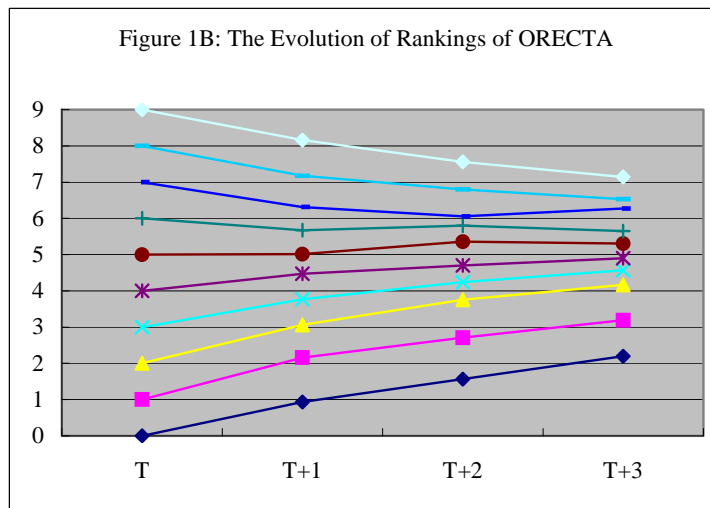
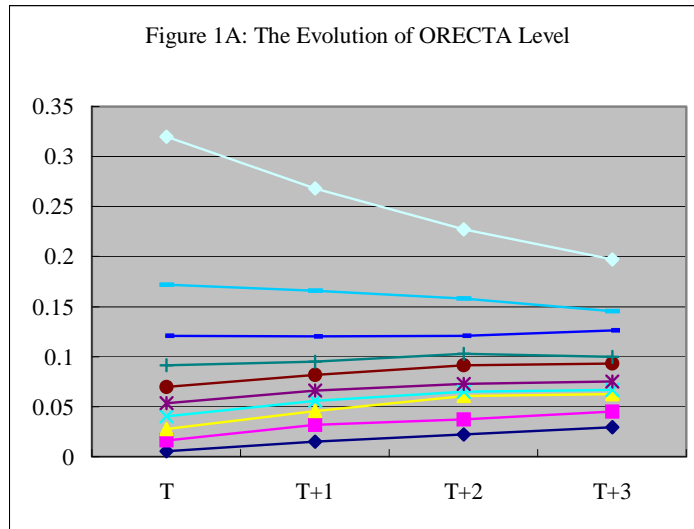
	Model 1			Model 2		
	Coefficient	Chi-Sq	P-value	Coefficient	Chi-Sq	P-value
INTERCEPT	-2.337	4.413	0.036	-3.982	11.165	0.001
ORECTA	6.846	287.892	<.0001	6.489	222.586	<.0001
LQ				0.968	81.746	<.0001
ROA	-10.234	184.921	<.0001	-9.929	157.289	<.0001
LEV	2.190	59.884	<.0001	1.862	38.528	<.0001
SIZE	-0.045	0.685	0.408	0.022	0.140	0.709
NONOPERAT	7.895	3.683	0.055	3.696	0.742	0.389
AR	-0.056	0.014	0.907	0.661	1.689	0.194
OBS: 6,378						
Pseudo R-square	31.57%			38.43%		

**Panel B: The Effect of a Qualified Opinion on Subsequent Tunneling Behavior (Dependent variable is ORECTA in year t+1)**

	Coefficients	T-statistics	P-value
ORECTA	0.333	20.940	<.0001
Q	0.049	3.010	0.003
LEV	0.013	1.330	0.183
SIZE	0.015	5.240	<.0001
OBS: 6378			
ADJ-R <sup>2</sup> : 70.02%			

### Figure 1. The Time-series Behavior of ORECTA

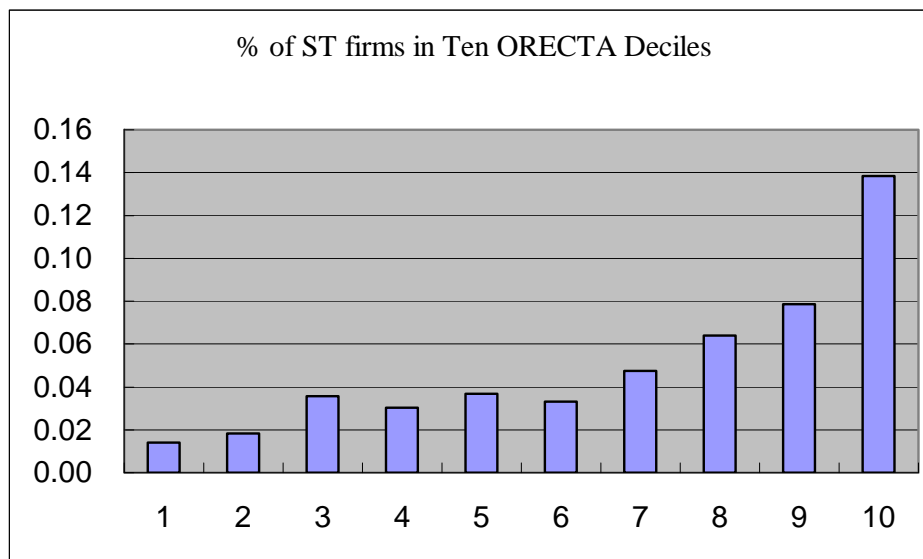
Between 1996 and 2004, in each year (t) we sort firms into ten deciles based on Other receivable as a percentage of total assets (ORECTA). From the lowest ORECTA decile to the highest, each decile is assigned a ranking from 0 to 9. We then trace the level (Figure 1A) and the rankings (Figure 1B) of ORECTA in each decile for the future three years.



**Figure 2. The Proportion of Firms in each ORECTA Decile that attains ST (Special Treatment) status in two years**

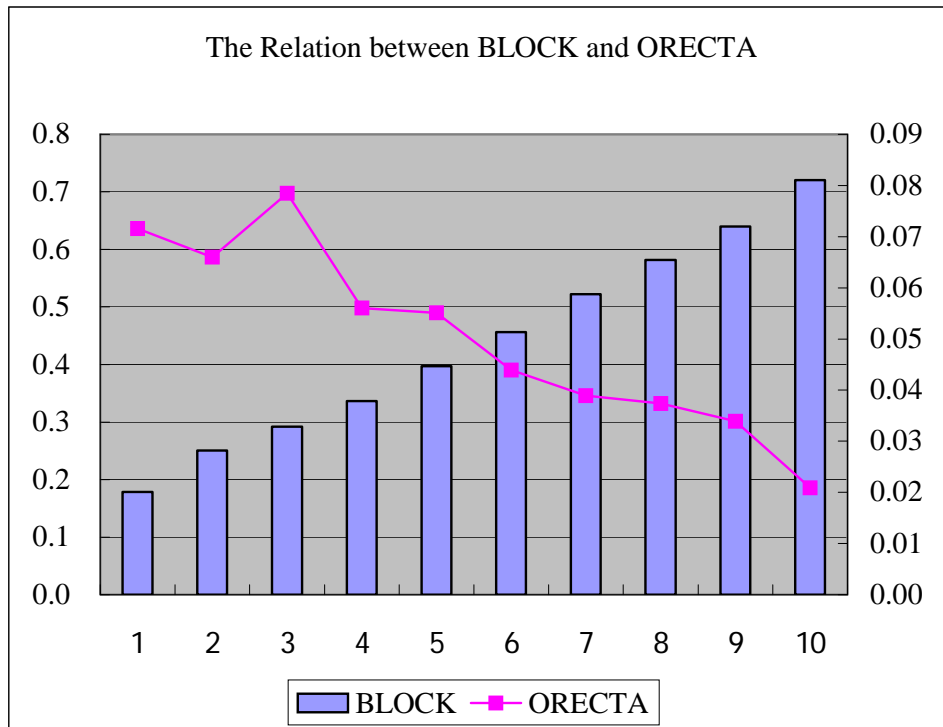
Chinese listed firms that have had two consecutive annual losses (or whose book value becomes negative) receive “Special treatment” or “ST” status. ST stocks are under various trading and financial restrictions, and if an ST stock reports one more loss year, it will be delisted. Because Chinese firms rarely go bankrupt, ST can be regarded as an equivalent financial distress metric.

Between 1996 and 2004, we sort firms annually into ten deciles based on the magnitude of their reported ORECTA (other receivables as a percentage of total assets). This figure depicts the proportion of firms in each decile that received ST status two years after the formation of the deciles. That is, we form the portfolios in year  $t$ , and observe whether this firm is specially treated in year  $t+3$ .



**Figure 3. The Relation between BLOCK and ORECTA**

This graph examines the relation between ownership structure and the extent of tunneling using ORECTA. Prior literature suggests that the incentives for tunneling will be most acute when a blockholder's cashflow ownership (C) is much lower than her controlling ownership (O). To test this hypothesis, we sort firms annually into 10 deciles based on BLOCK, the percentage of common shares held by the biggest shareholder (a proxy for C). We then compute the median ORECTA in each decile (the line graph), as well as the average BLOCK value (the bar graph). The X-axis is decile rankings based on BLOCK. Numerical values for BLOCK are reported in the left side of the graph; numerical values for ORECTA are reported on the right.



**Figure 4: The Relation between ORECTA and the Probability of Firms Receiving an Unclean Auditor Opinion**

Each year, firms are sorted into ten deciles based on ORECTA. We then calculate the percentage of firms within each group that received a qualified opinion in the accompanying audit report.

