

# Connected transactions and firm valuations: evidence from China affiliated companies<sup>1</sup>

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# Connected transactions and firm valuations: evidence from China affiliated companies

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## ABSTRACT

Are there expropriating connected transactions in China affiliated companies? What are the characteristics of probable expropriating, propping and non-expropriating firms in transaction and Corporate Governance (CG) perspective? Applying event study on all connected transactions (related party transactions), we classify connected transactions of China-listed shares in Hong Kong into eight types of transactions. Results indicate that four types of connected transactions are probable expropriating – continuing, contractual agreement, acquisition of assets, and disposal of assets. We have also identified two probable beneficial types of transactions – acquisition of interest and disposal of interest. Tobin's  $q$  is 25% lower for probable expropriating companies. For companies engaged in beneficial transactions, Market-to-book ratio has a 28.8% premium.

*Keywords:* Corporate governance; Firm valuations; Tunneling; Propping; Corporate governance index; Securities regulation

*EFM Classification:* 150, 620

## 1. Introduction

Conflict between large shareholders and minority shareholders has been a key issue recently. Does tunneling exist in Chinese firms? Differences in regulations and legal systems of Mainland China and HK may facilitate China-listed shares tunneling activities. For example, the definition of connected person is different between HK and China, since the PRC government often does not regard transactions with municipal and the privatized SOE as connected person. Johnson *et al.* (2000) suggest that tunneling in emerging markets or even developed markets are mostly legal, i.e. asset transfer, loan guarantees and dilution of minority shareholdings. One common type of probable expropriating transactions by Mainland Chinese companies is those that involve continual service or business transactions with a connected person.

Prior research suggests that there are possible expropriations of China-listed companies in HK minority shareholders through connected transactions in the late 90's period. Corporate governance of mainland China companies listed in HK has been the spotlight issue in recent years. For example, Beijing Enterprises Holdings Ltd controlling shareholder Beijing Holdings, which is ultimately controlled by Beijing Municipal Government, entered into a connected deal over 1 billion yuan with Beijing Municipal Water Company without minority shareholders approval. Another case, Shenzhen Expressway sold two toll roads back to its ultimate owner Shenzhen Municipal Government in March 2003, deal size 1.93 billion yuan, without minority shareholders approval. The deal only classified as discloseable transaction. Both deals were not subject to minority approval because these deals were not classified as connected transactions. According to Main Board Listing Rules Chapter 19A.14, a PRC government body will normally not be considered as a "controlling shareholder" of a PRC issuer. This study focuses on notifiable transactions, and examines which type of transactions destroys shareholder's value.

This paper intends to answer the following questions: are there expropriating connected transactions in these companies? What types of connected transactions are related to tunneling activities? Are tunneling/propping activities reflected in firm value? What transaction ownership type is more likely to facilitate tunneling/ propping activities? We classify connected transactions into eight different types of transactions. Results indicate that four types of connected transactions are potentially expropriating – Continuing, Contractual Agreement, Acquisition of Assets, and Disposal of Assets. There are objective CG attributes that significantly increase frequencies of firms to undertake connected transactions. We also show that CG of non-expropriating companies is better than expropriating companies. However, the

difference is relatively small because they are mainland China related companies with worse CG standard than HK companies.

The following are the major findings in this paper. Tobin's q for probable expropriating companies is on average -0.13 lower than non-expropriating companies at 5% significance level. The average Tobin's q in our sample is 0.52, which means that if a company undertakes expropriating transactions it will be discounted by about 25%. On the other hand, if a company engaged in beneficial transactions, Market-to-book-value (MTBV) will increase by 0.44 at 1% significance level. The average MTBV in our sample is 1.53, the increase constitutes a 28.8% premium. The CG Index developed in our prior research also shows a slightly higher index score for propping and non-expropriating companies. We recommend applying more stringent requirements for companies that frequently engaged in connected transactions. Also, lowering required value for disclosure may include a lot more expropriating smaller value connected transactions because our findings suggest that companies usually expropriate through small value transactions.

## 2. Prior research on expropriation of minorities and tunneling

There are prior empirical studies providing indirect evidence of tunneling activities (Bertrand *et al.* 2002, Bae *et al.* 2002 and Sung 2003). Bertrand *et al.* (2002) investigate Indian business groups, and finds that group owner tend to transfer value from low cash flow right firms to high cash flow right firms. Similarly, Bae *et al.* (2002) examine whether largest owner of Korean business groups benefit from acquisitions within the group. They discover that the minority shareholders of the bidder lose value but the ultimate owner of the group gains in overall value. Sung (2003) finds that higher disparity between control rights and cash flow rights leads to lower profitability. However, the above studies did not pinpoint tunneling activities, such as what, when and how the tunneling activities occurred. A recent study by Cheung *et al.* (2004) analyzes 375 connected transactions that are required distributing circular to shareholder's and independent shareholders' approval during 1998-2000. They compare connected transactions with discloseable transaction of similar transaction types, and find that there is negative excess return at the time connected transaction is announced. The study classifies transactions into three categories – transactions that are a priori likely to result in expropriations; transactions that are probably beneficial to the listed firm; and transactions with strategic rationales such as joint ventures. Asset acquisitions, asset sales, equity sales, trade relationships, and cash payments to connected parties are classified as expropriating type of transactions. They report that China-listed firms are more likely to undertake connected transactions,

which implies minority shareholders of these firms are more likely to be expropriated. They argue that investors cannot predict tunneling activities such that the firm will be revalued when tunneling transactions occurs.

According to Hong Kong Main Board and Growth Enterprise Market (GEM) listing rules, immaterial connected transactions, known as *De minimis* transactions (percentage ratios<sup>2</sup><0.1%; or percentage ratios < 2.5% and total consideration < 1 million HKD) are exempt from reporting announcement and independent shareholders' approval requirements. Connected transactions that are not *De minimis* transactions with percentage ratios < 2.5%, or percentage ratios < 25% and total consideration < 10 million HKD is required to report in next published annual report, notify the Exchange, and a press release. On the other hand, a connected transaction is also classified as discloseable transaction, which required circular distribution, only if the percentage ratios are higher than 5%. This part of the HK listing rules may provide a loophole for tunneling because connected transactions with percentage ratios between 2.5% to 5% and 10 million HKD are exempted from circular distribution and independent shareholder's approval requirement. Hong Kong firms can avoid these two requirements by controlling the size of connected transactions, especially small 100 firms in HK<sup>3</sup>. HK firms can silently engage in connected transactions by reducing transaction value. Particularly continuing connected transactions, which are expected to extend over a period of time, are difficult to quantify true value of transaction. Cheung *et al.* (2004) dataset only includes connected transactions of larger value, i.e. transactions that required distribution of circular to shareholders. Therefore, it provides partial evidence of tunneling activities, and their sample may not be able to identify true expropriating transaction types. Therefore, investigating all available disclosed transactions help truly reveal tunneling activities in HK. This study provides direct evidence on tunneling and propping activities. Cheung *et al.* pre-classified expropriating, neutral and beneficial transactions. In contrast, we identify expropriating and beneficial type of connected transactions through Cumulative Abnormal Return (CAR). Positive CAR indicates beneficial transaction type while negative CAR represents expropriating transaction type. We find strong relationship between firm valuation and firm undertaken expropriating/beneficial transactions.

The major probable expropriating activity is continuing transactions, among which 67 involved cash inflow (sale of services or/and goods) and 132 involved cash outflow (buy of services or/and goods). Continuing transaction is the smallest transaction among transaction types. Cheung *et al.* (2004) dataset contains only larger connected transactions with Acquisition of Assets being the largest type of connected

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<sup>2</sup> Please refer to appendix for percentage ratios of HK listing rules

<sup>3</sup> These small firms have less than an average market value of 52 million HKD according to Lei and Song (2005).

transaction (approx. 27% of their sample). The largest transaction type in the sample of our dataset paper is continuing transaction, then acquisition of interests (Refer to Pie Chart 1&2). CAR in our sample is smaller than Cheung *et al.* (2004). This is because transactions in our dataset are much smaller (26 million HKD) than Cheung's dataset (106 million HKD). Both dataset have similar market value, and therefore our reported CAR is smaller.

### 3. Methodology

#### 3.1 Scope of research and data sources

This study focus on companies listed in HK stock market. First, Hong Kong has a relatively high standard of legal protection amongst emerging markets, so that connected transactions disclosure requirement can be enforced. Second, the listing rules have explicit regulations to govern connected and notifiable transactions, and have detailed instructions of required actions of relevant transactions, see appendix for notifiable transactions in chapter 14 of HK listing rules. Third, although there is no electronic database for analysis, HKEX website has provided a database for company announcement, which are available for public to search for company announcements including connected transactions and notifiable transactions. The announcements are exhaustive, that is, all disclosed transactions during a specific period can be downloaded from the website. Therefore, the information is readily available for public investors to access, representing good data transparency. Forth, there is evidence of tunneling in Hong Kong (Cheung *et al.* (2004)). There are two major types of Mainland Chinese related shares – Red Chips<sup>4</sup> and H Shares<sup>5</sup>. Why focus on these two types of shares? Differences in regulations of Mainland China and HK may facilitate Red Chips and H Shares tunneling activities. The controlling shareholders who are often Chinese firms may take advantage different legal jurisdiction between HK and China. Cheung *et al.* (2004) also suggest that mainland China companies are more likely to undertake expropriating connected transactions. Furthermore, the collection of transaction related data are prohibitively time-consuming to collect the full sample of HK stocks. Therefore, it is appropriate to focus this study on Red Chips and H Shares.

The data covers 181 companies Mainland Chinese companies — 105 H Shares

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<sup>4</sup> H Shares companies are incorporated in Mainland China, and approved by the China Securities Regulatory Commission to be listed in Hong Kong. The letter H stands for Hong Kong.

<sup>5</sup> Red chip companies are Mainland controlled companies incorporated outside of Mainland China, which the largest shareholder directly held at least 35% of companies' shares, or indirectly through companies controlling these entities.

companies and 76 Red Chip companies in Main Board (MB) and Growth Enterprises Market (GEM) of the Stock Exchange of Hong Kong (SEHK) listed on or before 31st October 2004. We use the classification of Red Chips and H Shares in China Stock Markets Web of HKEx official website. The transactions included in the study are: (1) connected transactions as defined in listing rules of Hong Kong Chapter 14A and Chapter 20; (2) discloseable transactions as defined in Chapter 14 (give the clause no.) and Chapter 19 and (3) discloseable transactions that are CT.

Data of notifiable transactions and connected transactions (CT) for the period 1<sup>st</sup> Jan 2002 to 31<sup>st</sup> Dec 2004 are obtained from HKEx website (listed company information search), going through all the announcements and obtaining systematically disclosed items<sup>6</sup>. Accounting data is downloaded from Datastream International, with the complement of annual reports to fill in missing data. Corporate governance related data are extracted from Hong Kong Listed Companies Annual Reports of financial year 2002/03. Note that there is quite an amount of missing data in our dataset, such that some of the cases with missing data may be dropped or estimated in analysis section.

### *3.2 Identify Connected Transactions*

When companies make transaction announcements, they also announce which listing rules require the company for disclosure. Main Board Listing Rules and GEM listing rules are similar, and here we use MB rules to illustrate connected transactions and discloseable transactions. If it is an announcement triggered by Chapter 14 or 14A in SEHK Main Board Listing Rules, they will be defined as notifiable transactions and connected transactions respectively. According to Chapter 14, notifiable transaction means

“A transaction classified as a share transaction, discloseable transaction, major transaction, very substantial disposal, very substantial acquisition or reverse takeover under rule 14.06”<sup>7</sup>

According to MB Listing Rules Chapter 14A, a connected transaction is any transaction between a listed issuer and a connected person, acquisition or disposal of interest in a company. Examples of connected persons are director, chief executive, substantial shareholder of the listed issuer, any person who was a director of the listed issuer within the preceding 12 months, a promoter or supervisor of a PRC issuer, etc.

Most of the transactions by Red Chips and H Shares are connected transactions,

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<sup>6</sup> The following items are systematically collected in announcements – Stock name and code of the company that engaged in the CT; Date of announcement; Value of transactions; Brief description of transactions; Which listing rule triggers the announcement; ownership structure of related parties.

<sup>7</sup> For full version, please refer to MB listing rule Chapter 14 for MB stocks and GEM Chapter 19 for GEM Stocks

discloseable transaction, or connected and discloseable. We also include a few connected and major transactions in connected and discloseable transaction because of their similar nature.

discloseable transaction — a transaction or a series of transactions (aggregated under rules 14.22 and 14.23) by a listed issuer where any percentage ratio is 5% or more, but less than 25%;

major transaction — a transaction or a series of transactions (aggregated under rules 14.22 and 14.23) by a listed issuer where any percentage ratio is 25% or more, but less than 100% for an acquisition or 75% for a disposal

Details of the regulation governing notifiable transactions and connected transactions can be found in SEHK Main Board Listing Rules Chapter 14 and 14A and SEHK GEM Listing Rules Chapter 19 and 20. The relevant rules have been extracted and presented in the appendix.

### 3.3 Event study methodology

Cumulative Abnormal Return (CAR) is captured for each transaction on their announcement date, which dates are from 2002 to 2004. The following relates the event study model applied. Abnormal returns based on the market model,

$$R_{jt} = \alpha_j + \beta_j R_{mt} + e_{jt}$$

where  $R_{jt}$  is the rate of return of the  $j$ th stock on day  $t$  and  $R_{mt}$  is the rate of return of a market index on day  $t$ .  $e_{jt}$  is a random variable that has an expected value of zero, is not correlated with  $R_{it, i \neq j}$ , is not autocorrelated, and has constant variance. We used HS Composite Index 200 as a proxy for market index.

The abnormal return for the  $j$ th common stock on day  $t$  is

$$AR = R_{jt} - (\alpha_j + \beta_j R_{mt})$$

where  $\alpha_j$  and  $\beta_j$  are ordinary least squares estimates

Cumulative abnormal return (CAR) for stock  $j$  over an event window, days  $D_1$  through  $D_d$  is:

$$CAR_{j,(D_1,D_d)} = \sum_{t=D_1}^{D_d} AR_{jt}$$



For our data, we find that frequencies of transactions undertaken by companies are positively skewed, that is, median is lower than the mean of the distribution. In long-term, overlapping transactions may distort the analysis significantly because companies often undertake connected transactions and discloseable transactions. There are also types of transactions that “propped” up the firm which may offset effects of prior expropriating transaction. Therefore, we focus the event windows in short-term to medium term, to avoid overlapping effects of different transactions from the same company.

#### 4 Descriptive statistics of Connected and Discloseable Transactions

Table 1 is a summary of transaction type, description and number of observations we obtained by exhaustively collecting all connected, discloseable and connected & discloseable transactions (total 601) from 1/1/2002 to 31/12/2004. 592 of these transactions have the appropriate information for our research. There are 474 connected transactions, 82 discloseable transactions and 36 connected & discloseable. See figure 1 and figure 2.

Table 1 : Description and observation counts of collected connected and discloseable transactions

<b>Type of Transaction</b>	<b>Description</b>	<b>No. of Observations</b>	
Continuing	Provide or purchase administrative or secretarial services and management, supply of goods, tenancy agreements, which are carried out on a continuing or recurring basis and are expected to extend over a period of time	67 cash inflow 132 cash outflow Subtotal 199	
	Contractual Agreement	One-off payment projects, such as building of factories, vessels	2 cash inflow 14 cash outflow Subtotal 16
		Acquisition of Assets	Purchase of assets, such as factory, equipment, land and property, machinery, aircrafts
Disposal of Assets	Sale of assets, such as factory, equipment, land and property, machinery, aircrafts	34	
Acquisition of	Acquire other company interests or joint venture	186	

Interests	interests	
Disposal of Interests	Sale of interest in subsidiaries or joint venture	50
Loan / Guarantee	Advance a loan or guarantee, usually involves pledge agreement for securing the obligations	2
Placement	Increase of registered capital, capital injection into the company	5
Others	Transactions that cannot be classified to the above eight types	43
		Total: 592

Figure 1: Distribution of connected and discloseable transactions

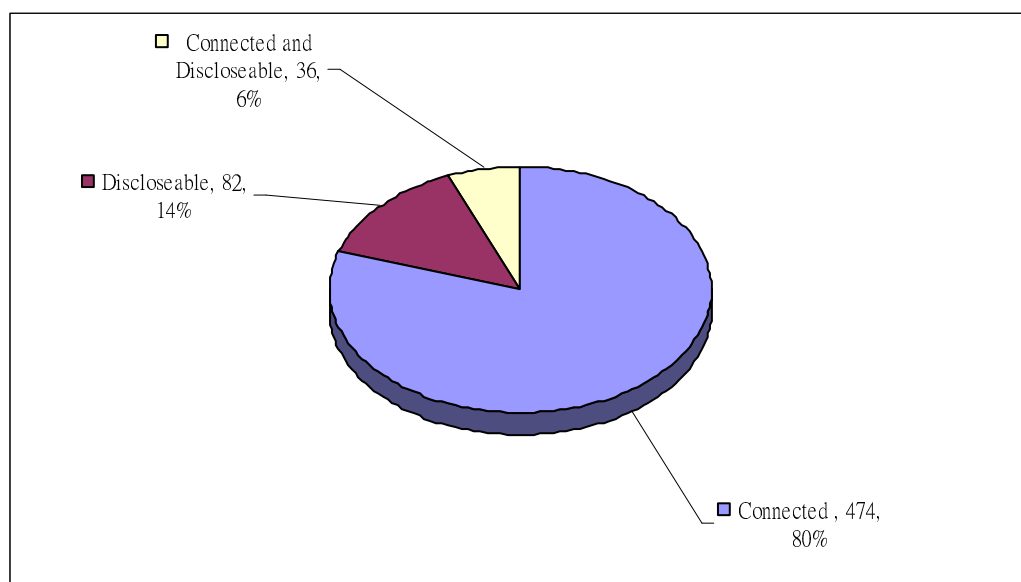
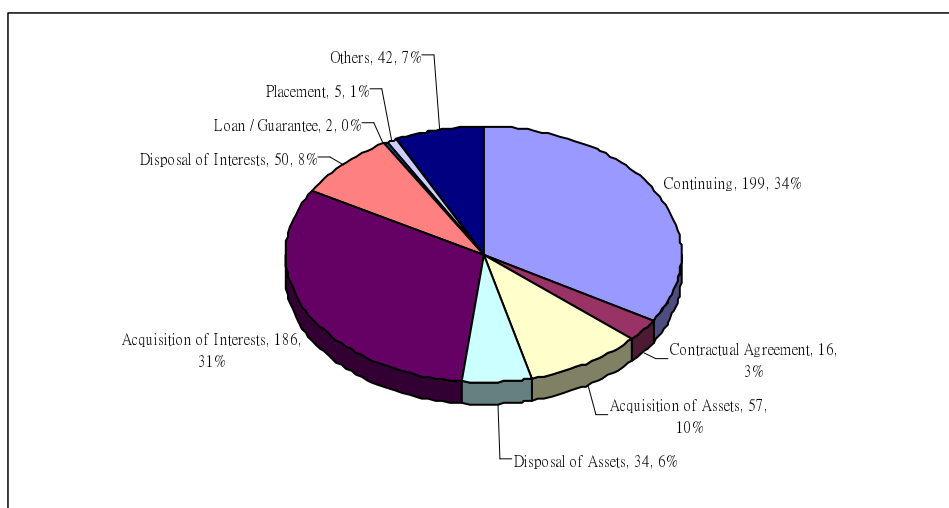


Figure 2 : Distribution of transaction types



We also record the value of each transaction whenever possible if relevant information is available. Table 2 is the description statistics of transaction value for different transaction types.

Table 2 : Summary of transaction value

Variable	N	Mean	Std. Dev.	Min	Median	Max
Transaction Value (All Transactions)(HK\$m)	528	630	4,097	0	37	66,863
Transaction Value (Connected)(HK\$m)	414	220	1,421	0	26	26,188
Transaction Value (Discloseable)(HK\$m)	79	879	3,052	1	122	25,440
Transaction Value (Connected and Discloseable) (HK\$m)	35	4924	13,896	15	320	66,863

Only 528 transactions have clearly stated the total value of transactions, others have missing values or insufficient information to determine the appropriate value. Total value of these transactions is HK\$332,838 million. Several large companies engaged in large value transactions, which leads to a significant positively skewed distribution of values.

Table 3 is the summary of transaction attributes and characteristics of companies in different groups. Companies engage in 3.36 transactions on average from 2002 to 2004, of which 2.75 are connected transactions. Red Chips undertake more transactions in total (mean = 4.47) and connected transactions (mean = 3.71) than the others.

Median value of cumulative transaction value by Red Chips and H Shares in this period is HK\$ 263.67 million (Table 5.3), but median value of each transaction is only about HK\$ 25.64 million (Table 5.2). Frequency of connected transactions by company is positively skewed, which implies companies engaged in CT tend to undertake more of similar transactions.

Table 3 : Transaction and company attributes of connected and discloseable transactions by companies

This table summarizes means and medians of transaction attributes and company attributes by different groups. Total no. of transactions, connected transactions and transaction types are the count of respective transaction types announced within 2002-2004. Cumulative value of all transactions is the aggregate of all available value of transaction undertaken by a company. Parent represents transactions with a counter-party that has the same parent company. Company attributes are values on 31<sup>st</sup> Dec,2003.

Variable	Overall			MB			GEM			H Shares			Red Chips		
	N	Mean	Median	N	Mean	Median	N	Mean	Median	N	Mean	Median	N	Mean	Median
<i>Transaction Attributes</i>															
Total no. of Transactions	181	3.36	2.00	142	3.74	3.00	39	1.97	1	105	2.55	2.00	76	4.47	3.00
No. of Connected Txns	181	2.75	1.00	142	3.10	2.00	39	1.49	0.00	105	2.06	1.00	76	3.71	2.00
Cumulative Value of All Txns (HK\$m)	134	2441	264	118	2765	351	16	56	25	68	2507	218	66	2373	289
Parent	142	0.29	0.00	122	0.29	0.00	20	0.30	0.00	80	0.29	0.00	62	0.29	0.00
No. of Continuing Txns	181	1.10	0.00	142	1.15	0.00	39	0.90	0.00	105	0.99	0.00	76	1.25	0.00
No. of Contractual Txns	181	0.09	0.00	142	0.11	0.00	39	0.00	0.00	105	0.01	0.00	76	0.20	0.00
No. of Asset Acquisitions	181	0.31	0.00	142	0.33	0.00	39	0.26	0.00	105	0.39	0.00	76	0.21	0.00
No. of Asset Disposals	181	0.19	0.00	142	0.19	0.00	39	0.21	0.00	105	0.24	0.00	76	0.13	0.00
No. of Interest Acquisitions	181	1.03	0.00	142	1.18	0.00	39	0.49	0.00	105	0.51	0.00	76	1.74	1.00
No. of Disposals of Interests	181	0.28	0.00	142	0.32	0.00	39	0.13	0.00	105	0.16	0.00	76	0.43	0.00
No. of Loan/Guarantee	181	0.01	0.00	142	0.01	0.00	39	0.00	0.00	105	0.00	0.00	76	0.03	0.00
No. of Placements	181	0.03	0.00	142	0.04	0.00	39	0.00	0.00	105	0.00	0.00	76	0.07	0.00
No. of Other Txns	181	0.23	0.00	142	0.30	0.00	39	0.00	0.00	105	0.25	0.00	76	0.21	0.00
<i>Company Attributes</i>															
Market Value (HK\$m)	162	9888	1291	134	11917	2147	28	181	97	91	4452	994	71	16856	2125

Tobin's q	143	0.52	0.44	115	0.60	0.54	28	0.21	0.08	87	0.33	0.29	56	0.81	0.72
Market-To-Book Value Ratio	162	1.53	1.34	133	1.56	1.37	28	1.41	0.97	90	1.50	1.28	71	1.57	1.37
Dividend Yield (%)	141	1.90	0.63	121	2.11	1.42	20	0.62	0.00	72	2.28	1.61	69	1.50	0.00
Payout Ratio	153	20.83	10.20	127	23.27	21.60	26	8.92	0.00	84	22.38	15.40	69	18.95	0.00
PE Ratio	93	15.84	10.30	85	15.13	10.20	8	23.45	17.00	48	17.07	10.70	45	14.53	10.10

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## 5. Empirical results

### 5.1 CAR of transactions

We apply event study to identify which type of transactions is probable expropriating or beneficial. If a company undertakes an expropriating transaction, the market will react negatively, and vice versa. We apply event study of individual transactions to test this hypothesis. CAR of each transaction is calculated according to the announcement day (AD). Normal return of a stock is estimated using Market Model by regressing individual stock returns and market returns. Individual and market returns are calculated from historical daily stock and index price data before and after announcement of the transactions. Abnormal return is the residual of regression. Cumulative Abnormal Return (CAR) is the sum of these abnormal returns in the respective event windows. An estimation window is set up to predict the normal return during the event window, and this window does not include the event. Estimation window in this event study is -50 days to -5days of announcement day. There are three disclosure types in our sample – connected, discloseable, and connected & discloseable transactions. Table 4 displays the result CAR by disclosure type. CAR in our sample is smaller than Cheung *et al.* (2004). The major reason is that our transactions are much smaller (26 million HKD) than Cheung's dataset (106 million HKD). Both dataset have similar market value, and therefore our reported CAR is smaller. For connected transaction disclosure type, there is a significant negative CAR of -0.93% in (AD, AD+10), and are negative but insignificant in shorter event windows. These results are in line with Cheung *et al.* (2004) that connected transactions have negative CAR. Discloseable transactions show mild positive significant effect on market value, with the approximate CAR over 1% in (AD, AD+1) and (AD, AD+5) event windows. Transaction parties are independent and not subject to tunneling activities. Therefore, the transaction will be undertaken only if management and directors expect value enhancement to the company. Connected and discloseable transactions display a larger CAR, over 3% in (AD, AD+5) and (AD, AD+10), significant at 1% level. These two disclosure types may represent business transactions of significance, and lead to increase firm valuation perceived by investors.

Table 4 : CAR of event study around Announcement Date (AD) by disclosure types

This table includes short-term and medium-term event window around the Announcement Date (AD). There are 592 observations on overall transactions, 474 are connected, 82 are discloseable and 36 are connected and discloseable. *p-value* are in parenthesis, testing mean = 0.

Event Window	Overall	Connected	Discloseable	Connected and Discloseable
AD-10, AD-1	.0058881 (0.0504)	.0083855 (0.0119)	-.0096906 (0.1302)	-.0049731 (0.6150)
AD-10,AD+10	-.0039191 (0.3819)	-.0009414 (0.8456)	-.0224942 (0.0596)	.0302673 (0.0516)
AD-5,AD-1	.0069948 (0.0022)	.0083586 (0.0009)	-.0015128 (0.7702)	-.0045735 (0.6299)
AD-5,AD+5	.0064066 (0.0644)	.0053771 (0.1475)	.0128282 (0.1856)	.0258225 (0.0443)
AD, AD+1	.0006765 (0.6866)	-.0008665 (0.6136)	.0103016 (0.0710)	.017909 (0.0358)
AD, AD+5	-.0005882 (0.8234)	-.0029815 (0.2746)	.014341 (0.0954)	.030396 (0.0037)
AD, AD+10	-.009807 (0.0050)	-.0093269 (0.0116)	-.0128036 (0.2255)	.0352404 (0.0164)

Our analysis classifies transaction types into probable expropriating and beneficial transactions as described in Friedman *et al.* (2003). Table 5 panel A and B display the CAR around the Announcement Date (AD) by transaction type. Panel A display the event study results with connected transactions only, and panel B display the results of whole sample. They show very similar results. The full sample results have higher significance due to larger sample. From these two panels, we find that Contractual Agreement negatively affect market value in short term, while Continuing and Disposal



of Assets show negative significance in longer term event windows. Acquisition of assets, which is a cash outflow transaction type, show controversial signs in CAR. In event windows for full sample (including discloseable transactions), acquisition of assets display mild negative significance. We define these four transaction types as ***probable expropriating transactions***, which is ‘bad’ in terms of minority shareholders perspective. We also define companies engaging in these transactions as probable expropriating companies, or in short, expropriating companies.

On the other hand, announcement of Acquisition of Interests and Disposal of Interests lead to positive response by the market. These findings contrast with Cheung *et al.* (2004) that cash outflow connected transaction type are expropriating. The difference may arise from our classification of transaction types. Most of the transactions in Acquisition of Interests involved purchasing ownership of joint ventures and other new business line, the purpose is to enhance future profits, hence it positively boost stock price in short term. It seems that the leakage of information are serious in this type of transaction, especially for connected transactions, as the event windows from -10 to 0 day to -5 to 10 day in Table 6.2 panel A show a positive response before the announcement. This type of transaction is “propping”, yet they are cash outflow activities. Disposal of assets show a mild positive CAR before and after AD as shown in Table 6.2 panel B. We define these two transaction types as ***probable beneficial transactions***, which is ‘good’ in terms of minority shareholders perspective. We also define companies engaging in these transactions as probable value-enhancing companies, or in short, propping companies.

Other companies in the sample which undertake none of the probable expropriating transactions during 2002-2004 are defined as non-expropriating companies. Loan and Guarantee (not shown in the table) records a negative impact in 5-day event windows, yet this type of transaction only has 2 cases and therefore cannot generalize any effects. There are only 5 cases of Placements. Type “others” are transactions that are unclear to define transaction type.

Table 5 : CAR of event study around Announcement Date (AD) by transaction types  
Panel A (Connected Transactions Only)

There are 189 continuing connected transactions, 20 contractual agreement transactions, 44 acquisition of assets, 22 disposal of assets, 161 acquisition of interests. Placement and loan & guarantee are not shown in the table due to insufficient cases.

Event Window	Continuing	Contractual Agreement	Acquisition of Assets	Disposal of Assets	Acquisition of Interests	Disposal of Interests
AD-10, AD-1	0.00457 (0.4123)	0.01764 (0.0391)	-0.00215 (0.841)	0.00715 (0.6719)	0.01260 (0.0242)	0.01189 (0.1815)
AD-10,AD+10	-0.01409 (0.0844)	0.01060 (0.4924)	-0.01010 (0.5226)	-0.00186 (0.9499)	0.01606 (0.0398)	0.01038 (0.5774)
AD-5,AD-1	0.00820 (0.0665)	0.00025 (0.9646)	-0.00299 (0.7415)	0.01490 (0.2918)	0.01043 (0.0086)	0.01050 ( 0.1623 )
AD-5,AD+5	0.00155 (0.7897)	-0.01049 (0.3789)	0.00005 (0.9967)	-0.01774 (0.4359)	0.01704 (0.0026)	0.00410 ( 0.8348 )
AD, AD+1	-0.00033 (0.8967)	-0.01349 (0.0728)	-0.00019 (0.9765)	-0.01466 (0.1143)	0.00280 (0.4109)	-0.00869 (0.1261)
AD, AD+5	-0.00665 (0.1026)	-0.01073 (0.2674)	0.00304 (0.7188)	-0.03264 (0.0433)	0.00662 (0.1254)	-0.00640 (0.6655)
AD, AD+10	-0.01866 (0.0027)	-0.00704 (0.6383)	-0.00795 (0.4716)	-0.00901 (0.663)	0.00346 (0.5539)	-0.00151 (0.9247)

Table 5 : CAR of event study around Announcement Date (AD) by transaction types  
 Panel B (Connected Transactions and Discloseable Transactions)

There are 189 continuing connected transactions, 20 contractual agreement transactions, 44 acquisition of assets, 22 disposal of assets, 161 acquisition of interests. Placement and loan & guarantee are not shown in the table due to insufficient cases.

Event Window	Continuing	Contractual Agreement	Acquisition of Assets	Disposal of Assets	Acquisition of Interests	Disposal of Interests
AD-10, AD-1	0.00553 (0.3119)	0.01659 (0.0422)	-0.00720 (0.4566)	-0.00431 (0.7253)	0.01174 (0.0188)	0.00345 (0.6513)
AD-10,AD+10	-0.01239 (0.125)	0.01386 (0.3592)	-0.02426 (0.0943)	-0.02643 (0.2618)	0.01412 (0.0559)	0.00627 (0.6887)
AD-5,AD-1	0.00769 (0.0791)	-0.00103 (0.8516)	-0.00444 (0.5794)	0.00875 (0.4018)	0.01031 (0.0039)	0.00496 (0.4479)
AD-5,AD+5	0.00211 (0.7107)	-0.00674 (0.5704)	-0.00860 (0.4447)	-0.00645 (0.7269)	0.01855 (0.0009)	0.00874 ( 0.6013 )
AD, AD+1	0.00006 (0.9806)	-0.01269 (0.0768)	-0.00117 (0.8484)	-0.00480 (0.558)	0.00456 (0.1784)	-0.00208 (0.7285)
AD, AD+5	-0.00558 (0.1658)	-0.00572 (0.5831)	-0.00416 (0.5972)	-0.01520 (0.3026)	0.00823 (0.0569)	0.00378 (0.7780)
AD, AD+10	-0.01792 (0.0034)	-0.00273 (0.8543)	-0.01706 (0.0945)	-0.02212 (0.223)	0.00238 (0.6805)	0.00282 (0.8359)

The major probable expropriating activity is continuing transactions, among which 67 involved cash inflow (sale of services or/and goods) and 132 involved cash outflow (buy of services or/and goods). Continuing transaction is the smallest transaction among transaction types. Cheung *et al.* (2004) dataset contains only larger connected transactions with Acquisition of Assets being the largest type of connected transaction (approx. 27% of their sample). The largest transaction type in the sample of

this paper is continuing transaction, and then acquisition of interests (Refer to Pie Chart 1&2). This may result from the difference in sample group, as we focus in mainland China related stocks. In addition, we find that most of our transactions do not require circular to shareholder's and independent shareholder's approval. Cheung *et al.* (2004) only include larger transaction which required circular to shareholders. We also have different classification in transaction type. Summary statistics show significant differences of smaller transactions with discloseable transactions. We further test continuing transaction type and find that cash outflow continuing transactions impose more negative effect on market value than cash inflow continuing transactions. CAR of outflow continuing transaction type in (AD, AD+10) is -1.794%, while inflow continuing type is only -1.408%. CAR of cash outflow contractual agreement transaction type is -2.464% significant in 5% level. Cash inflow contractual agreement only has 2 cases.

## 5.2 Evidence of expropriating and beneficial transaction

To test our classification of expropriating and beneficial transactions defined in previous section, we perform linear regressions of firm value on companies engaged in connected transactions. The model is defined as follows:

$$\begin{aligned} \text{Tobin's } q = & \text{Intercept} + \beta_1 \text{Firm\_Type} + \beta_2 \ln(\text{sales}) + \beta_3 \text{Debt / Equity} \\ & + \text{no.}_\text{of}_\text{transactions} + \text{CG\_subindices} + \text{Industry\_dummies} \quad (1) \\ & + \text{cash\_flow\_dummies} + \text{Stock\_type\_dummies} + \varepsilon \end{aligned}$$

Firm type is classified as expropriating if the company undertakes one or more expropriating transactions<sup>8</sup> during the sample period. Firm type is classified as propping if the company undertakes one or more beneficial transactions<sup>9</sup> during the sample period. These two groups are not mutually exclusive. There is prior evidence of firms engage in both expropriating and propping activities. Friedman *et al.* (2003) suggest that propping activities usually occur in negative macroeconomic shock, and expropriate in better times. In our sample, 52 of 181 companies have engaged in both expropriating and beneficial transactions. Hence, we perform regressions on each firm type to avoid overlapping effects of firms engaged in both expropriating and beneficial transactions. Tobin's q is used to proxy firm value, following Chung and Pruitt (1994). Corporate governance index of five major mechanisms<sup>10</sup> is constructed according to

<sup>8</sup> Expropriating transactions are continuing, contractual agreement, acquisition of assets and disposal of assets.

<sup>9</sup> Beneficial transactions are acquisition of interests and disposal of interests

<sup>10</sup> Five mechanisms are Board Structure, Executive Compensation, Conflict of Interest, Ownership

Lei and Song (2005) to proxy firm corporate governance. Industrial dummies and cash-flow dummies are included to control other effects. Table 6 presents regression results of firm value on firm types. The regression results confirm our classification in previous section. Tobin's q is lower on average when company engaged in expropriating transactions. Tobin's q for probable expropriating companies is on average -0.13 lower than non-expropriating companies at 5% significance level. The average Tobin's q in our sample is 0.52, which means that if a company undertakes expropriating transactions it will be discounted by about 25%. In contrast, when companies engaged in beneficial transactions, it has an insignificant positive effect on the firm value. The finding confirms that investors discount those companies that engaged in expropriating firms. Note that the discount does not fully reflect all transactions effect, that is, investors may only partially anticipate connected transactions. We also use MTBV as an alternative measure to firm value. Statistical significance of expropriating company diminished but still is negative. On the other hand, significance increased for propping companies to 1 % level. If a company engaged in beneficial transactions, MTBV will increase by 0.44. The average MTBV in our sample is 1.53, the increase constitutes a 28.8% premium.

Table 6: Regressions of firm value on firm type

This table is the regression of Tobin's q on type of firms. Firms engaged in connected expropriating transactions will be classified as expropriating companies. Firms engaged in connected beneficial transactions will be classified as propping companies. CG sub-indices are used to proxy CG of the company, following Lei and Song (2005). Industry dummies, firm size, leverage are included. *p*-value are in parenthesis

	Tobin's q		MTBV	
	(1)	(2)	(3)	(4)
Company undertaken expropriating transactions	-0.1295		-0.0601	
	(0.048)		(0.713)	
Company undertaken beneficial transactions		0.0707		0.4407
		(0.307)		(0.011)

Structure and Transparency Standard.

ln(sales)	-0.0289 (0.075)	-0.0323 (0.048)	0.0403 (0.316)	0.0444 (0.259)
Debt/Equity Ratio	0.1080 (0.257)	0.1007 (0.296)	-0.1884 (0.413)	-0.2410 (0.287)
Number of connected transactions undertaken	0.0091 (0.558)	0.0029 (0.851)	-0.0163 (0.687)	-0.0129 (0.738)
CG sub-indices	Yes	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes	Yes
Cash-flow dummies	Yes	Yes	Yes	Yes
Stock type dummies	Yes	Yes	Yes	Yes
R-squared	0.4572	0.4448	0.1198	0.1575

### 5.2.1 Analysis of probable expropriating and beneficial transactions

This section analyzes characteristics of companies engaged in probable expropriating and beneficial transactions. Table 7 is the comparison of companies that engaged in continuing, contractual agreement, acquisition of assets, and disposal of assets transactions and non-expropriating transactions. Note that the companies engaged in non-expropriating transactions did not involve in any expropriating type of transactions. The most notable difference is that the number of transactions undertaken per company engaging in continuing transactions (median = 5) is significantly higher than companies that do not engage in expropriating types of transaction (median = 1). They engaged more in every type of transactions except Placement and Others. Consequently, median cumulative value of transactions made by expropriating companies is higher than non-expropriating companies. The highest cumulative value is Acquisition of Interests (Mean = HK\$ 3,591 million). However, the average amount is lower. (Mean = HK\$ 2,486 million compared to Mean = HK\$ 2,109 million for companies engaging in Continuing Transactions). Propping and non-expropriating companies have relatively high Tobin's q (median = 0.55 & 0.52 respectively)

compared to acquisition of assets (median = 0.37) and disposal of assets (median=0.33) but about the same level as continuing transactions. These results support the regression analysis of equation (1) as probable expropriating firms have lower firm value.

For companies engaged in Contractual Agreement transaction type, they have large number of transactions undertaken (over 10 transactions in the three-year sample) and a much higher percentage in parent's participation (mean = 60%). Transactions involving parent companies are higher in expropriating firms than non-expropriating firms (32% vs. 17%). Companies engaged in Acquisition of Assets and Disposal of Assets have higher percentage in parent participation (mean = 38% & mean = 40% respectively) and higher number of connected transactions than non-expropriating companies (median = 3 vs. median = 0). These evidence strongly support expropriating companies undertake more connected transactions.

Companies engaged in probable beneficial type of transactions have engaged in relatively less expropriating transactions. Parent participation also shows a relatively low percentage (26%). Examples of these beneficial transactions involve buy/sell of joint venture stakes which may be strategically beneficial to the company. Cheung *et al.* (2004) classify this type of transactions as neutral and may not be expropriating. Their results indicate takeover offers produce high positive monthly CAR. In our study, takeover offers are classified as acquisition of interests, which results are also positive in short-term CAR.

Table 7: Comparison of companies engaged in continuing, contractual agreement, acquisition of assets and non-expropriating transactions

This table reports means and medians of transaction attributes and company attributes by the type of transaction companies engaged. Total no. of transactions, connected transactions and transaction types are the count of respective transaction types announced within 2002-2004. Cumulative value of all transactions is the aggregate of all available value of transaction undertaken by a company. Parent represents transactions with a counter-party that has the same parent company. Company attributes are values on 31<sup>st</sup> Dec,2003.

Variable	Companies engaging in the transaction type																	
	Continuing			Contractual Agreement			Asset Acquisition			Asset Disposal			Acquisition of Interests			Non-Expropriating		
	Obs	Mean	Median	Obs	Mean	Median	Obs	Mean	Median	Obs	Mean	Median	Obs	Mean	Median	Obs	Mean	Median
Total Transactions	70	5.83	5.00	5	10.40	5.00	40	4.38	4.00	26	4.73	3.00	77	5.35	4.00	76	1.39	1.00
Total Connected	70	5.24	4.00	5	10.20	5.00	40	3.65	3.00	26	3.31	2.00	77	4.36	3.00	76	0.95	0.00
Cumulative Value	56	2109	508	5	1482	2040	35	2151	298	25	1835	193	75	3591	413	76	2486	14
Parent	66	0.32	0.00	5	0.60	1.00	40	0.38	0.00	25	0.40	0.00	73	0.26	0.00	42	0.17	0.00
Continuing	70	2.84	2.00	5	1.60	1.00	40	1.33	1.00	26	1.27	0.00	77	1.42	0.00	76	0.00	0.00
Contractual	70	0.19	0.00	5	3.20	2.00	40	0.05	0.00	26	0.00	0.00	77	0.14	0.00	76	0.00	0.00
Asset Acquisition	70	0.41	0.00	5	0.20	0.00	40	1.43	1.00	26	0.50	0.00	77	0.29	0.00	76	0.00	0.00
Asset Disposal	70	0.19	0.00	5	0.00	0.00	40	0.25	0.00	26	1.35	1.00	77	0.14	0.00	76	0.00	0.00
Interest Acquisition	70	1.41	1.00	5	4.20	2.00	40	0.85	0.00	26	0.62	0.00	77	2.42	2.00	76	0.88	0.00
Disposal of Interests	70	0.40	0.00	5	0.80	0.00	40	0.28	0.00	26	0.27	0.00	77	0.45	0.00	76	0.20	0.00
Loan / Guarantee	70	0.03	0.00	5	0.00	0.00	40	0.05	0.00	26	0.04	0.00	77	0.03	0.00	76	0.00	0.00



Placement	70	0.00	0.00	5	0.00	0.00	40	0.00	0.00	26	0.19	0.00	77	0.05	0.00	76	0.00	0.00
Others	70	0.21	0.00	5	0.00	0.00	40	0.15	0.00	26	0.42	0.00	77	0.26	0.00	76	0.26	0.00
Market Value (31 <sup>st</sup> Dec 2003)	70	9529	2202	4	7268	4682	38	6574	1396	23	11109	974	77	14014	2176	62	11811	764
Tobin's q (31st Dec 2003)	63	0.57	0.52	2	0.65	0.65	37	0.43	0.37	20	0.39	0.33	68	0.62	0.55	54	0.54	0.52
MTBV (31 <sup>st</sup> Dec 2003)	70	1.56	1.41	4	0.92	0.96	38	1.45	1.36	23	1.78	1.62	77	1.73	1.60	61	1.44	1.18
Dividend Yield	65	2.44	2.75	4	3.40	3.30	36	2.65	2.43	22	0.60	0.00	69	2.19	1.80	48	1.25	0.00
Payout Ratio	68	27.15	31.81	4	40.09	42.70	37	25.13	25.71	25	9.34	0.00	75	23.43	21.74	54	15.99	0.00
PE Ratio	51	14.49	10.30	4	10.18	9.80	27	13.96	10.10	9	43.33	22.80	50	12.83	10.70	27	11.97	9.40

### 5.2.2 *Are there relationships between different types of transactions and particular governance structure?*

Table 8 compares CG attributes of expropriating and non-expropriating firms. On average, board size of expropriating companies is larger, for both inside (ED) and outside (INED) directors. CEO/Chairman duality and executive director as chairman are more common in expropriating firms, with the exception of firms with contractual agreement type. There are less family member existence in board for expropriating companies, however, the conflict of interest among directors are much more common. Acquisition of interests has a low family member existence among groups; in contrast, Asset Disposal has the highest existence of family members. In Lei and Song (2005), existence of family members decreases firm value. The results provide direct evidence on why family-based firms have lower firm value, i.e. family-based firms are more likely to engage in expropriating transactions.

Non-expropriating firms have much higher variable compensations, so that their variable/base ratio is much larger than expropriating firms. Expropriating firms' base compensation is significantly higher than non-expropriating firms, yet variable compensation is lower than non-expropriating firms. This implies that non-expropriating firms employ a more balanced base and variable compensation as executives' incentives. Poor executive compensation structure may lead to firm undertaking more expropriating transactions. Expropriating transactions may deteriorate firm market value and profit, which are major benchmarks used to determine the amount of variable compensation. A higher variable compensation decrease directors' incentive to undertake transactions that damage firm's bottom-line.

From table 8, there is a relatively high median in the largest shareholdings percentage for probable expropriating companies. We made further investigation about ultimate owners in these firms. If largest shareholder's shareholding is larger than 50%, it is identified as presence of ultimate shareholders. Although most H Shares are held more than 50% by PRC government, expropriating firms have high significance in the presence of ultimate controlling shareholders. There is significant difference between the two groups in two-sample t-test — where 82% of expropriating companies and 58% of non-expropriating companies has an ultimate controlling shareholder. Note that non-expropriating firms include companies that do not have any transactions. Companies are classified as expropriating if they engaged in one or more expropriating types of transaction, the rest of the firms are non-expropriating. Conflict of interests is higher among executive directors of expropriating firms. It appeared directors are having competing business interest, increase difficulty for them to balance interests between parent's and subsidiary's shareholders.

On average, probable expropriating firms have lower CG standards using our CG Index as benchmark. It can explain why lower CG standard firms have lower firm valuation. Table 6.5 reports CG Index and sub-indices of companies in our sample, following CG model described in Lei and Song (2005). Non-expropriating firms have slightly higher CG Index<sup>11</sup> compared to expropriating. Two-sample t test with equal variance has been performed to gauge the difference in CG Index and sub-indices. CG Index is only slightly higher in non-expropriating firms, but is not significant. This is because Red Chips and H Shares have close CG standards. Our prior research on corporate governance index has classified HK stocks in 4 grades, grade 1 is the best CG group and grade 4 is the poorest CG group. Most of these Red Chips and H Shares are grade 3 and grade 4 companies and there are no significant difference between firm valuations among these CG-inferior groups, however, if they are compared with grade 1 and grade 2 firms, they have an average 20% discount of Tobin's q (Lei and Song (2005)). Furthermore, the model has quite a number of local CG attributes which specialized for family-based companies. H Shares are government controlled and Red Chips seldom have family members in board.

CG sub-indices show some significant differences between expropriating and non-expropriating firms. Board structure index of non-expropriating firm is higher at 5% significant level. Besides, non-expropriating firms have significantly better conflict of interest index at 1% level. These two sub-indices are the areas that create positive CG structure for non-expropriating firms. Interestingly, transparency standards of expropriating firms are higher at 1% level. Recalling this index consist of whether firm is audited by Big 4; comply with code of best practice; and issuance of ADR. Table 6.5 shows that expropriating firms have higher percentage of Big 4 and ADR. A possible explanation of this phenomenon is that expropriating firms are aware of their transactions undertaken, and would like to cover up with a better image to the public. The higher level issuance of ADR in expropriating firms may signal a potential problem for foreign investors. It seems that foreign investors are less likely to react or even learn about connected transactions held by the company, since the press release is only published in local news paper. These expropriating companies may exploit the weakness of foreign investors monitoring effort.

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<sup>11</sup> See Appendix Table 11 for definitions

Table 8 : Comparison companies of CG variables by expropriation type and non-expropriation type

Variable	Continuing			Contractual Agreement			Asset Acquisition			Asset Disposal			Acquisition of Interests			Non-Expropriating		
	N	Mean	Median	N	Mean	Median	N	Mean	Median	N	Mean	Median	N	Mean	Median	N	Mean	Median
Tobin's Q	63	0.57	0.52	2	0.65	0.65	37	0.43	0.37	20	0.39	0.33	68	0.62	0.55	54	0.54	0.52
Market to Book Value	70	1.56	1.41	4	0.92	0.96	38	1.45	1.36	23	1.78	1.62	77	1.73	1.60	61	1	1
Market Value	70	9529	2202	4	7268	4682	38	6574	1396	23	11109	974	77	14014	2176	62	11811	764
No. of ED	70	6.27	6.00	5	6.40	8.00	40	6.05	6.00	26	5.15	5.00	77	6.19	6.00	76	4.54	4.00
No. of NED	70	1.41	0.50	5	1.20	2.00	40	0.98	0.00	26	1.77	1.00	77	1.29	1.00	76	1.59	1.00
No. of INED	70	3.06	3.00	5	2.00	2.00	40	3.00	3.00	26	2.77	3.00	77	2.87	3.00	76	2.24	2.00
Total No. of Directors	70	10.74	11.00	5	9.60	11.00	40	10.03	10.00	26	9.69	10.50	77	10.35	10.00	76	8.37	9.00
CEO as Chairman (unadjusted)	70	0.59	1.00	5	0.00	0.00	40	0.73	1.00	26	0.73	1.00	77	0.51	1.00	76	0.49	0.00
CEO as Chairman (adjusted)	70	0.60	1.00	5	0.00	0.00	40	0.73	1.00	26	0.73	1.00	77	0.52	1.00	76	0.51	1.00
ED as Chairman	70	0.99	1.00	5	0.80	1.00	40	0.95	1.00	26	0.96	1.00	77	0.97	1.00	76	0.86	1.00
No. of Family Members in Board	70	0.13	0.00	5	0.00	0.00	40	0.15	0.00	26	0.19	0.00	77	0.13	0.00	76	0.18	0.00
Exist Family Members in Board	70	0.06	0.00	5	0.00	0.00	40	0.05	0.00	26	0.08	0.00	77	0.05	0.00	76	0.07	0.00
Exist ED Conflict of Interest	70	0.13	0.00	5	0.20	0.00	40	0.03	0.00	26	0.12	0.00	77	0.12	0.00	76	0.01	0.00
Exist NED Conflict of Interest	70	0.03	0.00	5	0.00	0.00	40	0.00	0.00	26	0.08	0.00	77	0.01	0.00	76	0.00	0.00
Exist INED Conflict of Interest	70	0.00	0.00	5	0.00	0.00	40	0.00	0.00	26	0.00	0.00	77	0.00	0.00	76	0.00	0.00
Executive Director's Fee	70	0.34	0.00	5	1.10	0.22	40	0.28	0.00	26	0.12	0.00	77	0.32	0.00	76	0.14	0.00
Executive Base Compensation	70	4.24	1.86	5	7.62	2.43	40	1.74	0.89	26	2.20	0.76	77	4.45	2.36	76	2.22	0.96

Executive Variable Compensation	70	1.04	0.05	5	0.10	0.00	40	0.48	0.01	26	0.54	0.00	77	2.47	0.00	76	1.87	0.00
Independent Director's Fee	70	0.34	0.20	5	0.19	0.20	40	0.18	0.15	26	0.17	0.10	77	0.35	0.20	76	0.20	0.11
Exist Share Option Scheme	70	0.56	1.00	5	0.80	1.00	40	0.33	0.00	26	0.42	0.00	77	0.64	1.00	76	0.41	0.00
% of issued shares held by Directors	69	0.05	0.00	4	0.02	0.00	38	0.04	0.00	22	0.09	0.00	73	0.06	0.00	65	0.14	0.00
% of issued shares held by Largest Shareholder	69	0.55	0.56	4	0.57	0.57	38	0.51	0.51	23	0.50	0.55	74	0.54	0.55	65	0.49	0.50
No. of Substantial Shareholders	70	2.01	2.00	5	1.40	2.00	40	2.05	2.00	26	1.88	2.00	77	1.95	2.00	76	2.07	2.00
Big Four	70	0.94	1.00	5	0.80	1.00	40	0.90	1.00	26	0.88	1.00	77	0.92	1.00	76	0.78	1.00
Code of Best Practice	70	0.60	1.00	5	0.20	0.00	40	0.80	1.00	26	0.65	1.00	77	0.57	1.00	76	0.62	1.00
American Depository Receipts	70	0.26	0.00	5	0.20	0.00	40	0.25	0.00	26	0.35	0.00	77	0.18	0.00	76	0.07	0.00
Board Structure Index	70	56.1	54.2	5	92.0	92.1	40	51.8	46.4	26	54.3	48.6	77	60.2	62.0	76	64.8	64.4
Executive Compensation Index	70	57.1	62.8	5	74.9	71.4	40	52.0	44.1	26	58.2	57.3	77	58.8	62.9	76	57.1	55.0
Conflict of Interest Index	70	93.5	100.0	5	92.7	100.0	40	99.1	100.0	26	90.9	100.0	77	94.9	100.0	76	99.5	100.0
Transparency Standard Index	70	65.5	69.0	5	48.2	47.1	40	67.6	69.0	26	66.7	69.0	77	61.6	69.0	76	52.1	69.0
Ownership Structure Index	70	29.4	27.6	5	43.0	32.1	40	28.7	23.6	26	31.8	26.5	77	30.0	26.1	76	33.6	25.3
Corporate Governance Index	70	47.5	45.7	5	68.2	68.5	40	47.0	45.3	26	47.6	45.9	77	49.4	47.5	76	51.5	46.9

## 6. Conclusions

This paper provides direct evidence on tunneling and propping. The evidence explains why poor CG companies have lower value. We have identified four probable expropriating types of connected and discloseable transactions for Red Chips and H Shares firms – Continuing, Contractual Agreement, Acquisition of Assets, and Disposal of Assets. We define companies engaged in expropriating transactions as “expropriating firms”, and the others as “non-expropriating” firms. The major differences between these two groups are expropriating firms on average undertake more connected transactions, in smaller transaction value and a higher parent participation. Furthermore, expropriating firms have lower firm value on average. Note that not all connected transactions are expropriating transactions. We have identified two probable beneficial types of transactions – acquisition of interests and disposal of interest. We define companies engaged in beneficial transactions as “propping firms”. Acquisition of interests shows positive impact on CAR, indicates it may be beneficial transactions. Disposal of interest also displays mild positive effect on CAR. Classification of expropriating and beneficial transactions is confirmed by the regressions of firm value on firm type. Tobin’s q for probable expropriating companies is on average -0.13 lower than non-expropriating companies at 5% significance level. The average Tobin’s q in our sample is 0.52, which means that if a company undertakes expropriating transactions it will be discounted by about 25%. On the other hand, significance increased for propping companies to 1 % level. If a company engaged in beneficial transactions, MTBV will increase by 0.44. The average MTBV in our sample is 1.53, the increase constitutes a 28.8% premium. Our CG Index also shows a slightly higher index score for propping and non-expropriating companies.

We also analyzed the characteristics of expropriating companies. They have more executive directors and total directors. CEO/Chairman duality and ED/Chairman duality are more common in expropriating firms, with high director conflict of interest. Pay performance sensitivity in expropriating companies is lower than non-expropriating companies. These indicate insufficient board independence and monitoring efficiency. The expropriating firms are more likely to have an ultimate controlling shareholder with 50%+ shares. Overall CG index of non-expropriating firms are slightly higher than expropriating firms. It is because non-expropriating firms have better board structure and less conflict of interest in expropriating firms. It is more

common for expropriating firms to issue ADR, indicating probable expropriation of foreign minority shareholders.

This study, as one of the pioneer in Hong Kong Connected Transaction research, supports the launch of CT research to cover all HK listed companies. The full coverage will enable authorities to set unbiased regulations to govern HK listed firms. In our prior research, we found that the better grade CG firms in HK have more than 20% premium over lower grade CG firms, while most firms in this research lay in low grade firms. Including better governed firms and small-caps can assist development of comprehensive benchmarks for corporate governance in HK. Further research focusing on probable expropriating firms' attributes may identify more specific characteristics of tunneling activities.

The results reveal that excessive connected transactions imply probable expropriation against minority shareholders. More stringent disclosure requirement may apply to companies engaged more than normal CT, such as required to disclose connected transactions by circular. Furthermore, the range of percentage ratios in discloseable transactions can be lowered so to include smaller value transactions. This is because we find that smaller transactions are more expropriating, and discloseable transactions required a circular to shareholders may deter expropriating activities. The value of transactions corresponding to connected transactions should also be lowered accordingly. Besides, more supporting documents should be required if transactions involved cash outflow of companies. These further disclosure requirements provide effective investors' protection. These requirements are similar to conflict of interest disclosure in annual reports, which will decrease firm value. Firms subjected to probable expropriating activities are discounted accordingly. As a result, difference in return between large shareholders and public investors is diminished.

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## **APPENDIX**

Percentage Ratios in Rules Governing the Listing of Securities in the Stock Exchange of Hong Kong Ltd (28 March 2004)

<b>Transaction type</b>	<b>Assets ratio</b>	<b>Consideration ratio</b>	<b>Profits ratio</b>	<b>Revenue ratio</b>	<b>Equity capital ratio</b>
Share transaction	less than 5%	less than 5%	less than 5%	Less than 5%	less than 5%
Discloseable transaction	5% or more but less than 25%	5% or more but less than 25%	5% or more but less than 25%	5% or more but less than 25%	5% or more but less than 25%
Major transaction - disposal	25% or more but less than 75%	25% or more but less than 75%	25% or more but less than 75%	25% or more but less than 75%	Not applicable
Major transaction - acquisition	25% or more but less than 100%	25% or more but less than 100%	25% or more but less than 100%	25% or more but less than 100%	25% or more but less than 100%
Very substantial disposal	75% or more	75% or more	75% or more	75% or more	Not applicable
Very substantial acquisition	100% or more	100% or more	100% or more	100% or more	100% or more

Disclosure requirement in Rules Governing the Listing of Securities in the Stock Exchange of Hong Kong Ltd (28 March 2004)

	<b>Notification to Exchange</b>	<b>Publication of an announcement in the newspapers</b>	<b>Circular to shareholders</b>	<b>Shareholders' approval</b>	<b>Accountants' report</b>
Share transaction	Yes	Yes	No	No	No
Discloseable transaction	Yes	Yes	Yes	No	No
Major transaction	Yes	Yes	Yes	Yes	Yes
Very substantial disposal	Yes	Yes	Yes	Yes	Yes
Very substantial acquisition	Yes	Yes	Yes	Yes	Yes
Reverse takeover	Yes	Yes	Yes	Yes	Yes