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POLITICS AND STOCK RETURNS: EVIDENCE FROM THAILAND

Miss Nantiya Udomworarat

สถาบันวิทยบริการ
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วิทยานิพนธ์นี้วิจัยเรื่องความสัมพันธ์ระหว่างการเมืองและอัตราผลตอบแทนของหุ้นในประเทศไทย จากผลการวิจัยพบว่าโดยเฉลี่ยแล้ว สายสัมพันธ์ทางการเมืองไม่ได้สร้างผลตอบแทนที่มากกว่าตลาดอย่างมีนัยสำคัญ อย่างไรก็ตาม ในปี 2003 กลุ่มบริษัทที่มีความสัมพันธ์กับคณะรัฐมนตรีให้ผลตอบแทนดีกว่าบริษัทอื่นๆ ในตลาดถึงร้อยละ 43.35 เปอร์เซ็นต์ และเมื่อทำการวัดประสิทธิภาพของบริษัทโดย Tobin's q ratio พบว่า ประสิทธิภาพของกลุ่มบริษัทที่มีความสัมพันธ์กับคณะรัฐมนตรีและนักการเมืองมีค่าสูงกว่ากลุ่มบริษัทที่ไม่มีสายสัมพันธ์ทางการเมือง

นอกจากนี้ยังพบว่า การเลือกตั้งสมาชิกสภาผู้แทนราษฎรส่งผลกระทบต่อการสร้างผลตอบแทนในสัปดาห์ที่มีการเลือกตั้งและส่งผลกระทบต่อปริมาณการซื้อขายในสัปดาห์ต่อมา ซึ่งผลกระทบจะแตกต่างกันตามประเภทของอุตสาหกรรม อย่างไรก็ตาม เมื่อแบ่งกลุ่มบริษัทจากสายสัมพันธ์ทางการเมือง พบว่า ผลตอบแทนของทั้งกลุ่มบริษัทที่มีสายสัมพันธ์ทางการเมืองและกลุ่มที่ไม่มีสายสัมพันธ์ทางการเมืองเคลื่อนไหวในทิศทางเดียวกัน แต่ปริมาณการซื้อขายของกลุ่มบริษัทที่มีสายสัมพันธ์ทางการเมืองเปลี่ยนแปลงอย่างมีนัยสำคัญในช่วงก่อนและหลังการเลือกตั้งเพียง 1 สัปดาห์เท่านั้น ซึ่งเป็นเครื่องบ่งชี้ถึงนักลงทุนคาดว่า การเลือกตั้งจะส่งผลกระทบต่อกลุ่มบริษัทที่มีสายสัมพันธ์ทางการเมือง

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จุฬาลงกรณ์มหาวิทยาลัย

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This paper studies the relationship between politics and stock returns in Stock Exchange of Thailand (SET). I find that political connections, on average, do not lead positive and significant abnormal returns in the market. However, the stock returns outstandingly increase 43.35% in 2003 when the firms were connected to cabinet. I also find that performance of firms connected to cabinet and firms connected to politician are higher than that of non-connected firms measured by Tobin's q ratio.

In addition, political election insignificantly increased stock returns at the election week and affects the trading volumes at the next week after election week. Moreover, the election announcement affects some industries in different time periods. Interestingly, this study also discovers that both abnormal returns of connected firms and those of non-connected firms move the same direction. Nevertheless, trading volumes of connected firms are only significant around election date. This indicated that the investors think the connected firms have stronger connections at announcement date.

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CHAPTER I

INTRODUCTION

1.1 Background and Problem Review

Politics and stock returns are subject of interest among participants in the financial market. In academic, Shleifer and Vishny (1994) pointed out, many countries operate a form of political connection in which politicians channel resources toward favored firms, distorting incentives, misallocating investments, and also increasing the extent of corruption. Moreover, Brown et al. (1988) argued that as the uncertainty was reduced, price changes tended to be positive on average prior to the election date. Therefore, the outcomes of the election allowed investors to immediately assess the effect on the country's future (i.e., positive price changes should be expected). There is evidence that dominant political leaders use their power to the advantage of their families and friends. In particular, Fishman (2001) found that a large percentage of a well-connected firm's value might be derived from political connections in Indonesia. Johnson and Mitton (2002) showed that the firms with strong political connections suffered more for Asian financial crisis in Malaysia in 1997. Faccio (2002) further extended that benefit and performance of connected firms, in 42 countries, increased when firms were connected through a politician. These evidences were supported the view that benefits extracted by connected-firms are significant.

In the view of political election, there are more puzzle stocks returns and trading volumes during the election date. A few earlier papers dealt with related issues, beginning with Lobo (1999) investigated that stock returns were lower and volatility was higher in the election years relative to non-election years in U.S. Then, Pantzalis, Stangel and Turtle (2002) found a significantly positive abnormal return during the two-week period prior to the election week in 33 countries. The results reflected informational efficiency that markets absorbed news and politics trended into prices in anticipation of election outcomes.

In Thailand, there has been anecdotal evidence about political connections. Only Tangkitvanich (2004) investigated that political connections affected the returns in

the Stock Exchange of Thailand (SET). He used the cross-sectional data only one year to investigate the impact of political connections on stock returns by Johnson and Mitton model (2001). The outcomes showed that the Prime Minister and family's stocks had a significantly higher rate of return than average market return increased shareholder's wealth 205,276 million baht in 2003.

This paper, henceforth, investigates the impact of political connections on stock returns in the Stock Exchange of Thailand (SET) since 1997 to 2004. The cross-sectional and pooled data are regressed by Johnson and Mitton model (2001) and Fama-French model (1993), respectively. Then, the financial ratios will be regressed against the political connections and the control variables to evaluate performance of connected firms and non-connected firms. Furthermore, the cumulative abnormal return and cumulative abnormal volume will be observed during the political election period.

1.2 Objective of the Study

The study has three objectives as following:

1. To investigate whether the political connections impact the stock returns.
2. To evaluate the performance of connected firms and non-connected firms.
3. To find cumulative abnormal returns and cumulative abnormal volumes during the election period.

1.3 Scope of the Study

The sample contains cross-sectional data of firms listed on the Stock Exchange of Thailand (SET) covering the period from Chuan's term through Taksin's term as Prime Minister (1997-2004).

The returns and volumes during the eleven elections since 1975 to 2005 are computed from both market and industries index. For the last two elections, the data are also considered for connected firms and non-connected firms.

1.4 Statement of Problem/ Research Question

On connected firms, the political connection drives a lot of benefits to a firm, such as profitable government concessions, monopolies, licenses, government contracts and tax. It leads investors to distort the allocation of funds and investment decisions. Moreover, the political elections will create an uncertainty on the return and volume observed in the time period immediately during the election period.

This paper will be focused on the political connections and the political elections in order to determine whether:

1. Political connections affect the stock returns in the Stock Exchange of Thailand
2. Connected firms have better performance than non-connected firms.
3. There are cumulative abnormal returns and cumulative abnormal volumes during the election period.

1.5 Contribution

This paper analyzes the impact of political connections and elections in Thailand. The results could be indicated whether the stock returns and performance increase due to the political connections from Chuan's government through Taksin's government. In addition, there are the investigations of cumulative abnormal returns and cumulative abnormal volumes owing to the election events since 1975. Such thorough analysis will provide an in-depth and productive database to improve more efficient system for corporate governance.

1.6 Organization of the Study

The remaining of this paper is organized as following. Chapter 2 reviews the theoretical background of the study and the previous relevant studies of political connection and political election. Chapter 3 describes the data source and methodology. It discusses the statistical technique and the regression analysis technique used to analyze the data. Abnormal return, abnormal volume, cumulative

abnormal return and cumulative abnormal volume during the election period are presented as well. Chapter 4 shows the results of both descriptive statistics and regression analyses. Finally, chapter 5 provides a summary and recommendations for the future research.



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CHAPTER II

LITERATURE REVIEW

2.1 Concept and Theoretical Background

2.1.1 The Three-Factor model

The multifactor model that occupies center stages these days is the Three-Factor model introduced by Fama-French (1993). The systematic factors in Fama-French model are size and book-to-market ratio as well as the market index.

$$R_{it} - R_{ft} = a + m (R_{mt} - R_{ft}) + s SMB_t + h HML_t + \varepsilon_{it}$$

R_{it} is the return of stock i at time t

R_{ft} is the risk free rate at time t

R_{mt} is the return on value-weighted market portfolio at time t

SMB_t is the difference between the returns on a portfolio of small stocks and a portfolio of big stocks at time t

HML_t is the difference between the returns on a portfolio of high book-to-market and a portfolio of low book-to market at time t

To create portfolios that track the firm size and book-to-market factors, Fama and French (1993) sorted firms annually by size (market capitalization) and book-to-market (B/M) ratio. The small-firms (group S) include with capitalization below the median, while big (group B) firms have above median capitalization. Similarly, the firms are annually sorted into three groups based on book-to-market (B/M) ratio: a low-ratio group (group L) with the 30% lowest B/M ratio, a medium-ratio group (group M) with the 40% middle B/M ratio and a high-ratio group (group H) with the 40% highest B/M ratio. The interaction of two size groups with the three value groups results in six groups of firms. Six such portfolios (S/L, S/M, S/H, B/L, B/M, B/H) are constructed each year throughout the period.

For each year, the size premium is constructed as the difference in returns between small and large firms. Specifically, the difference in returns of equally-weighted long position in the three small-firm portfolios and the equally-weighted short position in the three big-firm portfolios are computed. SMB (for small minus big) is the return difference. Thus, SMB is calculated from the returns of six portfolios as:

$$\text{SMB} = 1/3 (\text{S/L} + \text{S/M} + \text{S/H}) - 1/3 (\text{B/L} + \text{B/M} + \text{B/H})$$

Similarly, HML is constructed as the difference in returns between high B/M ratio and low B/M ratio firms. HML (for high minus low ratio), the difference in returns between an equally-weighted long position in the high B/M portfolios and the equally-weighted short position in the low B/M portfolios are computed. The value of HML is calculated from the returns the low and high B/M portfolios as:

$$\text{HML} = 1/2 (\text{S/H} + \text{B/H}) - 1/2 (\text{S/L} + \text{B/L})$$

2.1.2 Firm Performance

2.1.2.1 Return on asset ratio (ROA)

Return on asset ratio is defined as net income divided by the total asset. This ratio can be interpreted in two ways. First, it measures management's ability and efficiency in using the firm's assets to generate operating profit. Second, it reports the total return accruing to all providers of capital (debt and equity).

2.1.2.2 Return on equity ratio (ROE)

Return on equity ratio is defined as net income divided by the total equity. This ratio is a profitability ratio as well as ROA, however, it measures the value generating for only shareholders.

2.1.2.3 Tobin's q ratio

Tobin's q ratio is defined as the market value of total asset divided by the replacement cost of asset. However, due to data unavailability, this study applies the

simplified version of Tobin's q , defined as the market value of equity at the end of the accounting year plus the book value of liabilities divided by the book value of total assets. This ratio measures the relationship between a firm's market and book values. Specifically, Tobin's q ratio below 1 implies that the firm earns less than the required rate of return; a dollar invested in the firm's assets results in the future cash flows whose present value is less than \$1. In other word, low q ratio indicates that firm has poor performance.

Moreover, there is one caveat here on measures of performance. On one hand, accounting measures are not accurate because they are subject to manipulation by management. On the other hand, the market measure, Tobin's q , cannot be used without creating any measurement bias. For Tobin's q to provide an accurate measure of performance, stock prices have to reflect the true value of the firm. This implicit assumption may not be met in the case of emerging economies because the capital markets are illiquid and there is a lack of timely disclosure. So it is not clear whether the market measure or the accounting measure is more accurate in the case of Thai firms.

2.1.3 Event Studies

For informationally efficient market, the security prices reflect all currently available information. Then, the price changes reflect new information. It seems that one should be able to measure the importance of an event occurs.

An event study describes a technique of empirical financial research that enables an observer to assess the impact of particular event on a firm's stock price. We want to measure the unexpected return that results from an event. This is the difference between the actual stock return and the return that might have been expected given the performance of the market. This expected return can be calculated using the index model or estimated the average return around the date that new information about a stock is released.

A single-index model holds that stock returns are determined by a market factor and a firm-specific factor. The stock return, r_t , during a given period t , would be expressed mathematically as

$$r_t = a + br_{Mt} + e_t$$

where r_{Mt} is the market's rate of return during the period and e_t is the part of security return resulting from firm-specific events. The parameter b measures sensitivity to the market return, and a is the average rate of return the stock would realize in a period with a zero market return.

Determination of the firm-specific return in a given period requires that we obtain an estimate of the term e_t following as

$$e_t = r_t - (a + br_{Mt})$$

The residual, e_t , is the stock's return beyond what would be predicted from market movement alone, given the stock's sensitivity to the market. We refer to the term e_t as the *abnormal return*.

One concern that complicates event studies arises from leakage of the information. Leakage occurs when information is released to a small group of investor before official public release. In this case, the stock price might to increase or decrease days before the official announcement date. A better indicator would be the *cumulative abnormal return*, which is simply the sum of all abnormal returns over the time period of interest. The cumulative abnormal return thus captures the total firm-specific stock movement for an entire period when the market might be responding to new information.

Another measurement is the trading volume reflecting the sum of differences in investor reactions due to an announcement. *Abnormal volume* can be computed from the difference between the actual market volume and mean volume over the specific window normalized by the mean volume. If the leakage exists, the sum of all abnormal volumes over the time period of interest, *cumulative abnormal volume*, should be calculated.

2.2 Empirical Study

2.2.1 Empirical Study related to political connections

Shleifer and Vishny (1994) pointed out that politician themselves will extract at least some of the rents generated by connections and corporate value will enrich only when the marginal benefits of the connections outweigh their marginal cost. A few earlier papers dealt with related issues, began by Fishman (2001) who estimated the value of political connections in Indonesia. He looked at how stock prices moved when former President Suharto's health was reported to change during his final years in office (1995 to 1997). Then he compared the returns across firms with differing degrees of political exposure. The results suggested that a large percentage of a well-connected firm's value might be derived from political connections. Johnson and Mitton (2001) investigated the initial impact of Asian financial crisis in case of Malaysia as for Malaysia maintained a large and liquid stock market and it was possible also to examine variation in performance within the set of politically connected firms in the Malaysian data. The results indicated that the firms with strong political connections suffered more for Asian financial crisis in Malaysia in 1997. On the other hand, the firms connected to the Prime Minister gained subsidies when capital controls were imposed in September 1998. To assess the impact of political connections on stock price performance during various periods, the stock return was regressed against political connection variables, size, book-to-market ratio, debt ratio and industry dummies. Bailey, Gao, and Mao (2002) extended that national economic, legal, and regulatory characteristics affected the information environment in capital markets. The stock market behavior around earnings announcements in three countries (Indonesia, Singapore and China) was consistent with insider trading in shares of politically connected firms. Faccio (2002) further examined firms whose controlling shareholders and top managers were members of national parliaments or governments in 42 countries. The outcomes showed that connected firms enjoyed easier access to debt financing, lower taxation, and stronger market power. These benefits increased when firms were connected through their owner, with a

minister, or a seasoned politician. Moreover, the performance of connected firms was also better than non-connected firms.

In the Stock Exchange of Thailand (SET), Tangkitvanich (2004) examined the relationship between the stock returns and political connections in 2003 by using Johnson and Mitton model (2001). The results indicated that the firms connected to Prime Minister and family had significantly higher rate of return than average market return 141 percentage point. It led to increase shareholder's wealth 205,276 million baht in 2003.

2.2.2 Empirical Study related to political elections

Brown et al. (1988) noted that as the uncertainty was reduced, price changes tended to be positive on average prior to the election date. Therefore, if the outcomes of the election allowed investors to immediately assess the effect on the country's future, positive price changes should be expected. Lobo (1999) examined the impact of U.S. elections and partisan politics on the stock market using jump-diffusion models of daily stock returns from 1965 to 1996. The approach was to track jump risk in stock markets stemming from political incentives, and to separate the impact of routine trading and informational surprises, or jumps, on the mean and volatility of stock returns in election years and across partisan administrations. The results revealed that stock returns were lower and volatility was higher in the election years relative to non-election years. Moreover, the small stocks performed better under Democrats compared to Republicans. Pantzalis, Stangel and Turtle (2002), investigated the behavior of stock market indices across 33 countries around political election dates during the sample period 1974-1995. The outcomes showed a significantly positive abnormal return during the two-week period prior to the election week. This positive election effect or larger cumulative abnormal return (CAR) was strongest for elections in less-free countries when incumbents lost.

CHAPTER III

METHODOLOGY

3.1 Sample

The sources of data for this study are corrected from:

3.1.1 Integrated Stock Exchange of Thailand (SET) Information Management System (I-SIM) and SETSMART: The stock market, major shareholders and accounting data are taken from 1997 to 2004. The yearly accounting data are stock price, market capitalization, P/BV ratio, D/E ratio, tax, pretax income, return on asset (ROA), return on equity (ROE), book value of debt, market value of equity and book value of total asset.

3.1.2 DATASTREAM: The weekly market index, weekly industry index, weekly market volume and weekly industry volume are corrected since 1975 to 2005

Total sample is all listed firms excluded firms under Rehabco and unavailable data in the Stock Exchange of Thailand (SET).

3.2 Research Hypotheses

This study lays stress on the political connection by positioning on how connected shareholders and non-connected shareholders affect the value and firm performance. Moreover, the uncertainty on returns and volumes is also observed during the political events. This study, therefore, divides the hypotheses as following:

Hypothesis1: Stock returns can be explained by political connections.

Hypothesis2: Connected firms have better performance than non-connected firms.

- Connected firms have higher return on asset (ROA) than non-connected firms.
- Connected firms have higher return on equity (ROE) than non-connected firms.
- Connected firms have higher Tobin's q ratio than non-connected firms.

- *Hypothesis3*: There are cumulative abnormal returns and cumulative abnormal volumes during the election week.

3.3 Political connection measurement

3.3.1 Definition of connections

The definition recognized the political connection is important to investigate actual connected firms. As Faccio (2004) noted that a firm is connected with a politician if one of the company's major shareholders or top directors is: (1) a member of parliament, (2) a minister or the head of state, or (3) is closely related to a top official.

However, in Thailand most of major shareholders are company limited, connections are limited to relatives of each politician. Since family names may not coincide, to avoid understating connections, I integrate company's shareholders of company limited taken from Ministry of Commerce.

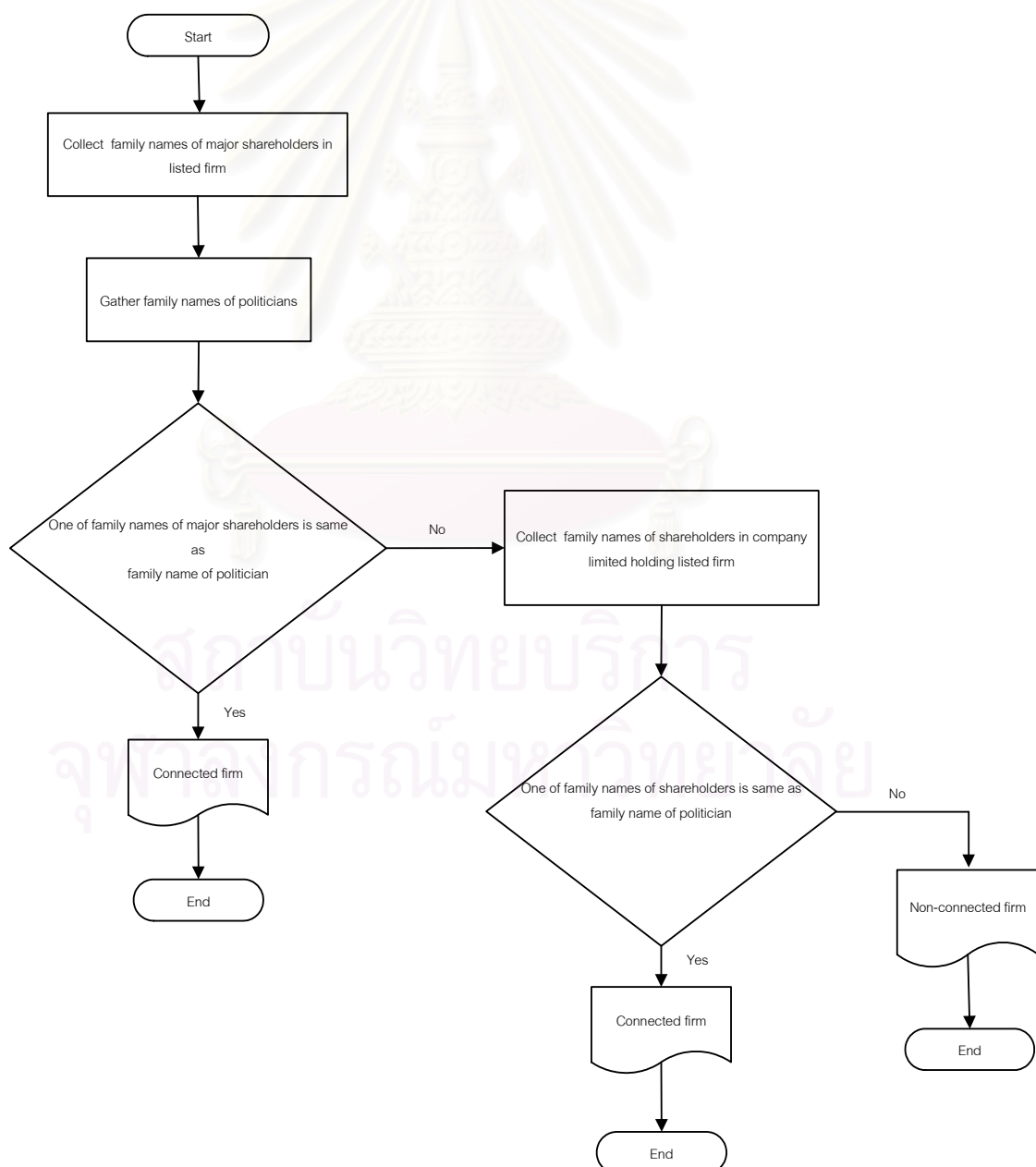
The definition of connections in this study, therefore, defines as a company is connected with a politician if one of the company's major shareholders is:

- (1) a member of representative,
- (2) a member of cabinet (Prime Minister, minister or assistant minister),
- (3) is closely related to a politician (i.e., the same family name as a politician), or
- (4) a company limited whose one of shareholders is a politician or is closely related to a politician.

In addition, Thailand stock exchange requires that 0.5% owners report their holdings. Thus, the major shareholders in this study are recognized as anyone directly or indirectly controlling at least 0.5% of shareholder votes.

3.3.2 Measurement

The data gathered comes from several sources. First of all, I collected family names of major shareholders of 1,609 listed companies excluded firms under Rehabco and unavailable data in the Stock Exchange of Thailand (SET) from in 56-1. Second, I gather family names of members of representative and cabinet using the Siam Letter directory and the official website of Thailand's government and parliament. Third, family names of politicians are cross-checked with family names of major shareholders. If the result does not show up the connection, the family names of shareholders in company limited are collected and cross-check again as seen from the flow chart.



After measuring political connections following steps above, the connections are divided into 3 main groups by degrees of political exposure. There are firms connected to politician, firms connected to cabinet and non-connected firms.

(1) Connected to politician

Politician is defined as Prime Minister, minister, assistant minister, or a member of representative. Connections in this case occur when at least one of major shareholders is (1) a member of representative, (2) a member of cabinet (Prime Minister, minister or assistant minister), (3) is closely related to a politician (i.e., the same family name as a politician), or (4) a company limited whose one of shareholders is a politician or is closely related to a politician.

For instant, Prakob Jirakiti, a member of representative in Chuan's government, is a major shareholder of Thai Electronic Industry (TEIC) and People's Garment (PG). One of the most powerful families in Taksin's government is Wongsawas family. Yoawapha Wongsawas is a member of representative and Prime Minister Taksin's sister. Wongsawas family is a major shareholder of M-LINK Asia Corporation (M-LINK).

(2) Connected to cabinet

As a result of advantage and disadvantage from government, this paper is also concentrated on cabinet. Cabinet consists of Prime Minister, ministers and assistant ministers. The study is covered two governments which are Chuan Taksin. Chuan's government holds from 1997 to 2004 and Taksin's government occupies since 2001 through 2004.

Firms may be connected to cabinet in 3 ways. First, at least one of major shareholders is member of cabinet. As in Chuan's government, Prasit Phattharaprasit, an assistant minister of Communication, is the major shareholder of Bank of Asia. . In Taksin' government, Anutin Chanveerakul, an assistant minister of Commerce, is a major shareholder of several listed firms such as Sino-That Engineering and Construction (STEC), Chonburi Concrete Cproduct, Oriental Hotel (OHTL) and Raimon Land (RAIMON).

Second, companies are classified as connected when at least one major shareholder is closely related to member of cabinet. Close relationships occur when a major shareholder has the same family name as a member of cabinet. A relative may be a spouse, a child, a sibling, or a parent. A good example of this is one of the most influential families, Prime Minister Taksin's family. The Prime Minister Taksin's family is the largest shareholder of five listed firms: Shin Corporation (SHIN), Advanced Info Service (ADVANC), Shin Satellite (SATTEL), Thai Military Bank (TMB) and ITV.

Third, at least one major shareholder is a company limited whose one of shareholders is a member of cabinet or is closely related to a member of cabinet. For example, one of major shareholders of Chai Watana Tannery Group (CWT) is Chai Dee Ying Company Limited whose one of shareholders has the same family name as an assistant minister of Communication in Taksin' government, Kasemthongsri.

This presents that all of connections connected to cabinet are included in case of firms connected to politician.

(3) Non-connected

The firms are categorized as non-connected when major shareholder of the company has on connections with cabinet or politician that is this state is not in case (1) and case (2). For example, all major shareholders of Siam Commercial Bank (SCB) do not have the same family names as cabinet or politician. Moreover, the family names of shareholders in company limited holding SCB are not the same family names as well. As a result, this study indicates as non-connected firms.

3.4 Methodology

3.4.1 The impact of political connections on the Stock Exchange of Thailand

3.4.1.1 Descriptive Statistics

To investigate the benefits of connections pointed out by Faccio (2002), we focus on leverage, taxation, and market share since 1997 to 2004. Leverage is total

debt over total equity. Taxation is income taxes over pretax income. Market share is firm's market capitalization over the total market capitalization of all firms. The simple average benefits of each year are calculated for connected firms and non-connected firms. These numbers are tested significantly different from zero computed from t-tests of differences of means.

$$t - stat = \frac{\bar{x}}{s/\sqrt{N-1}}$$

where \bar{x} is the sample mean of benefit

s is the estimated standard deviation of benefit

N is the number of observations of benefit

In addition, the different benefits of connections are computed to measure the advantage of firms connected to cabinet and firms connected to politician. Then, the differences are tested significantly different from zero computed from t-tests of differences of means.

$$t - stat = \frac{\bar{x} - \bar{y}}{\sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}}}$$

where \bar{x} is the sample mean of benefit for connected firms

\bar{y} is the sample mean of benefit for non-connected firms

s_1 is the estimated standard deviation of benefit for connected firms

s_2 is the estimated standard deviation of benefit for non-connected firms

n_1 is the number of observations for connected firms

n_2 is the number of observations for non-connected firms

The expected results are:

- Connected firms have higher leverage than non-connected firms.
- Connected firms have lower taxation than non-connected firms.
- Connected firms have higher market share than non-connected firms.

3.4.1.2 Regression Analysis

– To measure the impact of political connections on the value of a firm, the regression analysis can independently separate the level of each factor. The model used to quantify the effect is developed from Johnson and Mitton (2001). The cross-sectional data each year will be regressed since 1997 to 2004. The parameters are estimated by Ordinary Least Square (OLS) as following:

$$\begin{aligned} \text{Stock Return}_i = & a + b_1(\text{Political connections})_i + b_2(\text{Size})_i + b_3(\text{Book-to-Market Ratio})_i \\ & + b_4(\text{Debt Ratio})_i + b_5(\text{Industry Scales})_i + \varepsilon_i \end{aligned} \quad (1)$$

where Political connections_i: A dummy variable

= 1, if the stock i is a connected firm

= 0, otherwise.

Stock Return_i: The yearly return of stock i.

Size_i: The natural log of total assets for stock i.

Book-to-Market ratio_i: The book value of equity divided by market value of equity

Debt ratio_i: The total liability divided by total asset.

Industry Scales_i = 1, 2, ..., 31 if stock i is in industry 1, industry 2, ..., industry 31, respectively. (There are 31 industries, except Rehabco in industry

To test the advantage of political connections, the sample will be divided into 2 groups. One is the connected group which is connected to politician or connected to cabinet, the other is non-connected group matching the same characteristic as the first group. The model is developed from three factors models of Fama and French (1993). The weekly pooled data during 1997 to 2004 will be regressed. The constant of each group is detected by Ordinary Least Square (OLS) as following:

$$R_{it} - R_{ft} = a + m (R_{mt} - R_{ft}) + s SMB_t + h HML_t + \varepsilon_{it} \quad (2)$$

where R_{it} is the return of stock i at week t

R_{ft} is the risk free rate at week t

R_{mt} is the return on value-weighted market portfolio at week t

SMB_t is the difference between the weekly returns on a portfolio of small stocks and a portfolio of big stocks at week t

HML_t is the difference between the weekly returns on a portfolio of high book-to-market and a portfolio of low book-to market at week t

– To measure the impact of political connections on firm performance. ROA, ROE and Tobin's q ratio will be regressed against the political connections and the control variables. The control variables are size and industry scales. The cross-sectional data each year will be regressed since 1997 to 2004. The parameters are estimated by Ordinary Least Square (OLS) as following:

$$ROA_i = a + b_1(Political\ connections)_i + b_2(Size)_i + b_3(Industry\ Scales)_i + \varepsilon_i \quad (3)$$

$$ROE_i = a + b_1(Political\ connections)_i + b_2(Size)_i + b_3(Industry\ Scales)_i + \varepsilon_i \quad (4)$$

$$Tobin's\ q\ ratio_i = a + b_1(Political\ connections)_i + b_2(Size)_i + b_3(Industry\ Scales)_i + \varepsilon_i$$

(5)

where Political connections_i: A dummy variable

= 1, if the stock i is a connected firm.

= 0, otherwise.

ROA_i: Return on asset of stock i.

ROE_i: Return on equity of stock i.

Tobin's q ratio_i: Tobin's q ratio of stock i computed from book value of debt plus market value of equity divided by the book value of total asset.

Size_i: The natural log of market value for stock i.

Industry Scales_i = 1, 2, ..., 31 if stock i is in industry 1, industry 2, ..., industry 31, respectively. (There are 31 industries, except Rehabco in industry 17)

In addition, this study evaluates the result with alternative technique by using Sector Dummies substituted for Industry Scales. Sector dummies are categorized by code of the Stock Exchange of Thailand included 8 sectors, except Rehabco Sector. Each sector is composed of industries being similar characteristic as follows: Argo & Food Industry Sector (Agribusiness, Foods and Beverages), Consumer Product Sector (Fashion (Textiles, Clothing and Footwear), Household Goods, Pharmaceutical Products and Cosmetics), Financials Sector (Banking, Finance and Securities, Insurance) Industrials Sector (Automotive (Vehicles and Parts), Machinery and Equipment, Pulp and Paper, Chemicals and Plastics, Packaging), Property & Construction Sector (Building and Furnishing Materials, Property Development), Resources Sector (Energy, Mining), Services Sector (Commerce, Entertainment and Recreation, Health Care Services, Hotels and Travel Services, Printing and Publishing, Professional Services, Transportation) and Technology Sector (Communication, Electrical Products and Computer, Electronic Components). Other Sector for other industries is not included in control variables.

3.4.2 The impact of political election on the Stock Exchange of Thailand

There are eleven elections in Thailand since 1975 to 2005. The returns and volumes during the election period are computed for market and industries. To attribute the abnormal stock performance to the election, the first step in the study is to investigate the abnormal returns and abnormal volumes. Both of them will be calculated during the political election running from -4 to +4 week. The second step is to aggregate abnormal returns and abnormal volumes, the cumulative abnormal returns and cumulative abnormal volumes will be computed for time T1 to T2 as following:

$$AR_{it} = R_{it} - \bar{R}_i \quad (6)$$

$$AV_{it} = V_{it} - \bar{V}_i \quad (7)$$

$$CAR_i (T1, T2) = \sum_{T1}^{T2} AR_{it} \quad (8)$$

$$CAV_i (T1, T2) = \sum_{T1}^{T2} AV_{it} \quad (9)$$

where AR_{it} : Abnormal return of the i^{th} political election for week t .

R_{it} : Actual return of the i^{th} political election for week t .

\bar{R}_i : Estimated return of the i^{th} political election computed as average return over the -50 week period from week -54 to week -5.

AV_{it} : Abnormal volume of the i^{th} political election for week t .

V_{it} : Actual volume of the i^{th} political election for week t .

\bar{V}_i : Estimated volume of the i^{th} political election computed as average volume over the -50 week period from week -54 to week -5.

CAR_i : Cumulative abnormal return of the i^{th} political election from time T1 to T2.

CAV_i: Cumulative abnormal volume of the ith political election from time T1 to T2.

(T1, T2): The range of time from week T1 to week T2

$$= \{(-4, -3), (-2, 0), (+1, +4), (-2, +4)\}$$

Then, the average abnormal return, average abnormal volume, average cumulative abnormal return and average cumulative abnormal volume will be calculated. Significantly different from zero of them are computed from t-tests of differences of means.

$$t-stat = \frac{\bar{x}}{s/\sqrt{N-1}}$$

where \bar{x} is the sample mean of x

s is the estimated standard deviation of x

N is the number of observations of x

To test the advantage of political connection for the last two elections (2001 and 2005), the firms will be divided into 2 groups. One is the connected group which is connected to politician or connected to cabinet, the other is non-connected group. The cumulative abnormal returns and cumulative abnormal volumes of each group are noticed as the same model above.

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CHAPTER IV

RESULTS

This chapter is contributed to the outcome of the models demonstrated in the previous chapter which examine benefits of connections, political connections and stock return, performance of connected firms and the cumulative abnormal returns and cumulative abnormal volumes during the election period.

After gathering the data from the listed companies in the Stock Exchange of Thailand (SET) from 1997 to 2004, the firms whose major shareholder does not appear in 56-1 are excluded. Besides, this study excludes few firms owing to the unavailable data and rehabilitation. Then, the firms will be checked whether there are the political connections in accordance with the given criteria. Later correcting all appropriate samples, there are 1,609 samples across 30 industries in 8 years. Moreover, the stock prices and volumes are gathered in 2001 and 2005 in order to calculate cumulative abnormal returns and cumulative abnormal volumes during the election period.

In addition, the returns and volumes for market and industries during the election period are also used to compute cumulative abnormal returns and cumulative abnormal volumes to test whether the political election affects the stock market.

This study is to investigate the impact of political connection and political election in the Stock Exchange of Thailand (SET). First, the impact of political connection is divided into 2 parts which are descriptive statistics and regression analysis. Second, the impact of political election is focus on market, industry and stock.

4.1 Political Connection

4.1.1 Percentage of politically connected firms

As depicted in Table 1, of the whole sample of 1,609 firms, there were 131 firms connected to cabinet and 457 firms connected to politician. The percentage of firms connected to cabinet was above 5 % and reached the maximum of 12.12% in 2004.

Table 1
Number and percentage of politically connected firms

A company is connected with a politician if one of the company's major shareholders is: (1) a member of representative, (2) a member of cabinet (Prime Minister, minister or assistant minister), (3) is closely related to a politician (i.e., the same family name as a politician), or (4) a company limited whose one of shareholders is a politician or is closely related to a politician. Total sample are the listed company in the Stock Exchange of Thailand (SET) excluded rehabilitation and unavailable data. The data are covered the period from Chuan's term (1997-2000) through Taksin's term (2001-2004). Total sample are divided into 2 groups which are connected firms and non-connected firms. Connected firms are connected to cabinet, otherwise, connected to politician. Non-connected firms are the company whose major shareholders have no connections with cabinet or politician. Percentage of politically connected firms is computed as the number of connected firms divided by the total sample.

Year	All listed firms	Excluded data		Total sample	Connected firms		Non-connected firms	% of connected firms	
		Rehabilitation	Unavailable data ¹		Connected to cabinet	Connected to politician		Connected to cabinet	Connected to politician
1997	455	—	242	213	19	50	163	8.92%	23.47%
1998	410	49	182	179	15	43	136	8.38%	24.02%
1999	393	46	173	174	11	38	136	6.32%	21.84%
2000	373	44	150	179	12	43	136	6.70%	24.02%
2001	377	51	124	202	11	65	137	5.45%	32.18%
2002	399	53	137	209	16	76	133	7.66%	36.36%
2003	401	44	135	222	19	80	142	8.56%	36.04%
2004	412	44	137	231	28	62	169	12.12%	26.84%
Total	3220	331	1280	1609	131	457	1152	8.14%	28.40%

¹ Unavailable data is caused by missing at least one of raw data for this study. Most of missing data are taxes caused by no tax payment. The firms don't have to pay the taxes due to several reasons, for example, the firms recognize losses appeared in the financial statement.

Moreover, the percentage of firms connected to politician scattered from roughly 20% to 40%. The greatest percentage was 36.36% in 2002. The main reason that the percentage was not stable might be the major shareholders going to be new politicians and many connected firms occur in a few years ago.

4.1.2 Descriptive Statistics

Overall descriptive Statistics, as displayed in Table 2, reflects characteristics of connected firms and non-connected firms. There are market capitalization and influential financial ratios which are price per book value (P/BV), debt ratio (D/A), return on asset (ROA), return on equity (ROE) and Tobin's q ratio¹.

For firms connected to cabinet, the market capitalization of them was much higher than those of non-connected firms since 2001. Moreover, P/BV and Tobin's q ratio of connected firms was higher than those of non-connected firms since 1999. However, P/BV, D/A, ROA and ROE of connected firms were closed to those of non-connected firms. The results indicated that firms connected to cabinet were large firms and had good performance, although, the returns were similar to those of non-connected firms. For firms connected to politician, the market capitalization, P/BV, D/A, ROA and ROE of them were close to those of non-connected firms. Nevertheless, Tobin's q ratio of connected firms was higher than non-connected firms since 2001. The results showed that the characteristic of connected firms was not different from those of non-connected firms, except better performance since 2001.

In conclusion, the connected firms generally have better performance than non-connected firms since 1997 through 2004. As shown in figure 1, Tobin-q ratios of firms connected to cabinet were higher than those of firms connected to politician and much higher than non-connected firms.

¹ Tobin's q ratio is as the book value of debt plus market value of equity divided by the book value of total asset defined by Wiwattanakantang.

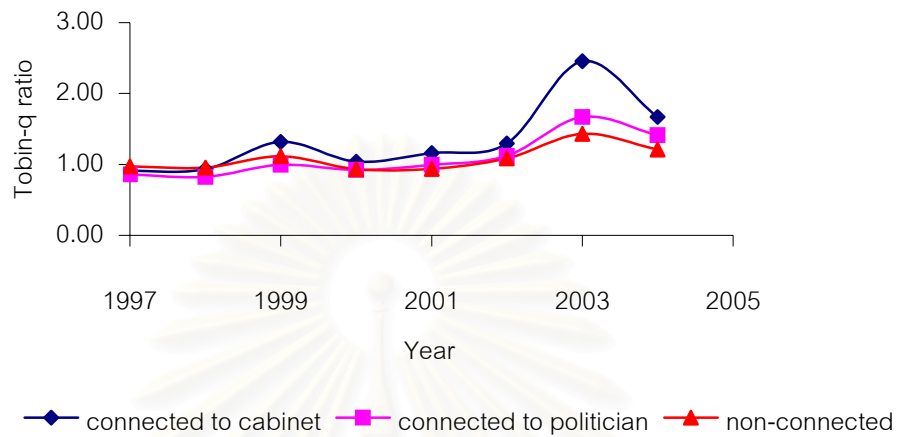
Table 2
Descriptive Statistics

Descriptive Statistics consist of market capitalization and financial ratios which represent characteristics of connected firms and non-connected firms. Connected firms are connected to cabinet, otherwise, connected to politician. Non-connected firms are the company whose major shareholders have no connections with cabinet or politician. Price per book value (P/BV) is stock price divided by book value per share. Debt ratio (D/A) is total liability divided by total assets. Return on asset (ROA) is net income divided by total asset. Return on equity (ROE) is net income divided by total equity. Tobin's q ratio is theoretically defined as the market value of total asset divided by the replacement cost of asset. However, due to data unavailability, this study applies Wiwattanakantang's simplified version, defined as the book value of debt plus market value of equity divided by the book value of total asset.

Year	Connected firms												Non-connected firms					
	Connected to cabinet						Connected to politician											
	Market cap	P/BV	D/A	ROA	ROE	TOBIN	Market cap	P/BV	D/A	ROA	ROE	TOBIN	Market cap	P/BV	D/A	ROA	ROE	TOBIN
(million baht)					Q	(million baht)					Q	(million baht)						Q
1997	2,190	0.86	0.72	-0.04	-0.20	0.91	2,175	0.69	0.64	-0.04	-0.21	0.86	3,288	2.36	0.64	-0.02	-0.17	0.97
1998	5,647	1.01	0.65	-0.01	-0.11	0.93	4,275	0.77	0.55	0.03	0.05	0.82	4,217	1.11	0.58	0.02	0.06	0.95
1999	12,848	1.98	0.62	-0.02	-0.16	1.32	6,652	1.17	0.57	-0.02	-0.17	0.99	9,377	1.75	0.56	0.01	-0.10	1.12
2000	4,463	1.19	0.60	0.05	0.07	1.04	3,663	0.92	0.56	0.03	-0.01	0.92	5,654	1.04	0.54	0.04	-0.45	0.93
2001	18,881	1.39	0.62	0.06	0.22	1.16	5,771	1.13	0.53	0.05	0.13	1.00	5,195	0.93	0.52	0.04	0.09	0.94
2002	14,256	1.35	0.56	0.05	0.10	1.30	8,597	0.53	1.51	0.05	0.09	1.12	6,627	1.22	0.49	0.04	0.12	1.08
2003	30,352	7.77	0.51	0.07	0.05	2.45	14,992	3.66	0.49	0.10	0.16	1.67	15,832	2.80	0.50	0.09	0.09	1.43
2004	23,621	2.60	0.48	0.08	0.08	1.67	16,017	2.11	0.45	0.08	0.09	1.41	17,233	0.94	0.49	0.09	0.16	1.21

Figure 1
Descriptive Statistics of Tobin-q ratio

This figure shows descriptive statistics of Tobin-q ratio for connected firms and non-connected firms. Connected firms are connected to cabinet, otherwise, connected to politician. Non-connected firms are the company whose major shareholders have no connections with cabinet or politician. Tobin-q ratio is the book value of debt plus market value of equity divided by the book value of total asset.



4.1.3 Benefits of connections

As illustrated in Table 3, benefits of connections are composed of leverage, taxation and market share. The different benefits between connected firms and non-connected firms varied which might be caused by economy and government policy. The firms connected to cabinet had a significantly higher leverage than non-connected firms with 2.92 in 2001. Moreover, the firms connected to politician had a significantly higher leverage than non-connected firms with 3.07 in 2002. This reflected easier access to debt financing than similar firms. However, the excess leverages of firms connected to politician were negative significant in 1998.

In the view of taxation, the difference between firms connected to cabinet versus non-connected firms was significant with -12.60% and the difference between firms connected to politician versus non-connected firms was significant with -10.52% in 2001. A negative coefficient means lower taxation that displayed stronger connections. The connected firms enjoyed a lower taxation.

Table 3
Benefits of connections

This table reports the means of benefits of connections which are leverage, taxation and market share. These benefits are supported by Faccio (2002). The simple average benefits of each year are calculated for connected firms, non-connected firms and the difference between connected and non-connected firms. Connected firms are connected to cabinet, otherwise, connected to politician. Non-connected firms are the company whose major shareholders have no connections with cabinet or politician. Leverage is total debt over total equity. Taxation is income taxes over pretax income. Market share is firm's market capitalization over the total market capitalization of all firms. These numbers are tested significantly different from zero computed from t-tests. *, **, ***: Significant different from zero at the 10%, 5% or 1% level, respectively.

Year	Connected firms						Non-connected firms			Difference between connected and non-connected firms					
	Connected to cabinet			Connected to politician			Leverage	Taxation	Market share	Connected to cabinet			Connected to politician		
	Leverage	Taxation	Market share	Leverage	Taxation	Market share				Leverage	Taxation	Market share	Leverage	Taxation	Market share
1997	5.3193*** (4.3136)	0.0112 (0.1011)	0.0019*** (4.1915)	3.9775*** (5.7482)	0.1389 (1.3176)	0.0019*** (3.4912)	6.7971*** (3.4007)	0.0680* (1.7625)	0.0029*** (3.4428)	-1.4778 (-0.6911)	-0.0567 (-0.7206)	-0.0010 (-1.0892)	-2.8196 (-1.3330)	0.0709 (0.6320)	-0.0010 (-0.9759)
1998	3.4736*** (3.6409)	0.3293 (1.3749)	0.0042* (1.7018)	2.5683*** (5.5090)	0.0939*** (2.5956)	0.0032** (2.2503)	4.9765*** (4.0541)	0.0914*** (2.6608)	0.0031*** (3.8519)	-1.5030 (-1.1128)	0.2379 (1.6337)	0.0011 (0.6363)	-2.4082* (-1.8340)	0.0024 (0.0489)	0.0000 (0.0263)
1999	3.9193*** (2.3322)	-0.0112 (-0.0573)	0.0063** (2.1496)	4.5721*** (2.8291)	0.0743 (1.2426)	0.0033** (2.2777)	6.2204*** (3.3064)	0.0779*** (2.9306)	0.0046*** (4.1927)	-2.3011 (-1.1024)	-0.0891 (-0.8214)	0.0017 (0.8852)	-1.6483 (-0.6646)	-0.0037 (-0.0561)	-0.0013 (-0.7396)
2000	3.7595*** (2.7008)	0.1101* (1.8144)	0.0038*** (2.4030)	2.8872*** (5.2648)	5.7114 (1.0189)	0.0031*** (3.5671)	7.4110* (1.6669)	0.1427*** (5.4731)	0.0048*** (4.1362)	-3.6516 (-0.8103)	-0.0327 (-0.7901)	-0.0010 (-0.7061)	-4.5239 (-1.0098)	5.5687 (0.9934)	-0.0017 (-1.1620)
2001	5.6520** (2.2280)	0.0674* (1.7594)	0.0117* (1.7479)	3.2558*** (4.9610)	0.0882*** (2.3402)	0.0036*** (2.7399)	2.7313*** (6.5766)	0.1934*** (5.0177)	0.0032*** (4.4566)	2.9207*** (2.6176)	-0.1260*** (-3.0301)	0.0085*** (3.0003)	0.5245 (0.6753)	-0.1052* (-1.9522)	0.0004 (0.2392)
2002	3.4794** (2.1778)	0.0967* (1.8749)	0.0072** (2.1476)	5.2835*** (2.8964)	0.1541*** (5.9596)	0.0043*** (3.4505)	2.2095*** (6.8591)	-0.4235 (0.9924)	0.0033*** (4.6437)	1.2699 (1.5860)	0.5202 (1.2171)	0.0038** (2.2682)	3.0740* (1.6595)	0.5776 (1.3510)	0.0010 (0.6861)
2003	1.8826*** (2.9455)	0.1697* (1.8649)	0.0063*** (2.2077)	1.9998*** (3.8872)	0.1519*** (5.5583)	0.0031*** (3.5419)	2.3834*** (5.8083)	0.1337*** (6.9586)	0.0034*** (3.5582)	-0.5007 (-0.9762)	0.036 (0.7425)	0.0030* (1.7478)	-0.3836 (-0.4189)	0.0182 (0.4240)	-0.0002 (-0.1443)
2004	1.8146*** (3.6329)	0.1614*** (6.2116)	0.0052*** (2.0257)	1.6648*** (5.1664)	0.1560*** (9.9773)	0.0035*** (2.6016)	2.0049*** (7.1311)	0.1265*** (7.8628)	0.0033*** (4.0502)	-0.1903 (-0.4294)	0.0349 (1.4572)	0.0019 (0.9665)	-0.3401 (-0.7742)	0.0295 (1.2880)	0.0002 (0.1310)

Lastly, most of the market share for connected firms was close to those of non-connected firms. The difference between firms connected to cabinet versus non-connected firms was significant with 0.85% 0.38% and 0.30% in 2001 2002 and 2003, respectively. This showed the benefits from market power related to a real monopolistic position, or to some advantage in obtaining concessions or licenses.

In summary, the firms connected to cabinet clearly showed higher whole benefits than non-connected firms in 2001. The reason might be the change of new government from Chuan's term to Taksin's term. The firms connected to cabinet might take the advantage from many new privileges.

4.1.4 Political connections and stock returns

The remarkable political connections led to a significant increase or decrease in stock returns. As a result, political connections as presented in Table 4 increased stock returns 43.35% in 2003 when the firms were connected to cabinet. This evidence was supported by Tangkitvanich (2004). He investigated that the firms connected to Prime Minister and family had significantly higher rate of return than average market return 141 percentage point in 2003.

In the view of firms connected to politician, this table noted poor consequence on stock return caused by political connections as seen from significantly negative coefficients with 25.16% in 1997. The downturn in 1997 was agreement with Johnson and Mitton (2001) issued that the firm with strong political connections suffered more for Asian financial crisis. Moreover, the results are consistent with the alternative methods presented in the Appendix A (Table 14)

In addition, the control variables also showed some significance and were interpreted independently. The control variable for size and leverage were significant for both negative and positive coefficients represented that the both of them were associated with higher and lower returns. For the book-to-market ratio, there was significant for negative coefficients indicated that the larger book-to-market ratio was associated with lower returns. Finally, industry scales were significant for both negative and positive coefficients.

Table 4
Political connections and stock return

This table reports the cross-sectional regressions purposed to explain the impact of political connections on the value of a firm. $Stock\ Return_i = a + b_1(Political\ connections)_i + b_2(Size)_i + b_3(Book\ to\ Market\ Ratio)_i + b_4(Debt\ Ratio)_i + b_5(Industry\ Scales)_i + \varepsilon_i$. There are five controlled variables following as Johnson and Mitton (2001) model. Stock return periods are as noted in each row since 1997 to 2004. Political connections are connected to cabinet, otherwise, connected to politician. Firm size is computed as the natural log of total assets. Book-to-Market Ratio is the book value of equity divided by market value of equity. Debt ratio is total liability divided by total assets. Industry Scales included 30 industries as defined in code of the Stock Exchange of Thailand. All coefficients are also estimated but not reported. These numbers are tested significantly different from zero computed from t-tests. *, **, ***: Significant different from zero at the 10%, 5% or 1% level, respectively.

Year	Connected to cabinet						Connected to politician					
	Political connections	Firm Size	Book/Market Ratio	Debt Ratio	Industry Scale	R ²	Political connections	Firm Size	Book/Market Ratio	Debt Ratio	Industry Scale	R ²
1997	0.0275 (0.1301)	-0.1057** (-2.0795)	-0.0939*** (-8.0782)	-1.1741*** (-3.3673)	-0.0118* (-1.8522)	54.23%	-0.2516* (-1.9279)	-0.0914* (-1.7989)	-0.0948*** (-8.3338)	-1.2024*** (-3.4136)	-0.0106* (-1.6812)	54.98%
1998	-0.1774 (-0.7017)	0.0844* (1.9229)	-0.0800*** (-2.2796)	-0.2335 (-0.8966)	0.0079 (1.2099)	7.71%	-0.0310 (-0.2103)	0.0805* (1.8646)	-0.0797** (-2.2615)	-0.2493 (-0.9299)	0.0075 (1.1308)	7.37%
1999	0.1558 (1.1651)	-0.0407 (-1.3115)	-0.0544 (-1.4826)	0.3096* (1.6614)	-0.0055 (-1.1929)	4.37%	-0.0400 (-0.4439)	-0.0389 (-1.2458)	-0.0592 (-1.6387)	0.3119* (1.6733)	-0.0056 (-1.1930)	4.02%
2000	-0.1489 (-1.0424)	-0.1148*** (-4.9888)	-0.0450 (-1.6000)	-0.2392 (-1.5778)	0.0003 (0.0895)	20.44%	-0.0795 (-1.0121)	-0.1152*** (-4.9630)	-0.0442 (-1.6079)	-0.2421 (-1.5874)	0.0007 (0.1865)	2.04%
2001	-0.2720 (-0.8466)	-0.0465 (-1.5760)	0.0221 (1.0176)	0.1536 (0.9149)	0.0149*** (3.4718)	11.44%	-0.0661 (-0.7115)	-0.0523 (-1.6313)	0.0263 (1.1470)	0.1545 (0.9163)	0.0153*** (3.4981)	10.67%
2002	0.0631 (0.5330)	0.0196 (0.8616)	-0.0394* (-1.8887)	-0.0161 (-0.0912)	0.0090* (1.8028)	2.56%	-0.0425 (-0.5106)	0.0219 (0.9651)	-0.0373* (-1.7268)	-0.0140 (-0.0803)	0.0087* (1.7788)	2.61%
2003	0.4335*** (2.4143)	0.0459 (1.1069)	-0.0120 (-0.2697)	0.4572* (1.7151)	0.0036 (0.5138)	4.81%	0.1002 (0.7864)	0.0443 (1.0780)	-0.0256 (-0.5695)	0.4741* (1.7582)	0.0021 (0.3054)	3.41%
2004	-0.2610 (-1.3693)	0.1107*** (3.1654)	0.0803 (0.9989)	-0.5064* (-1.7949)	-0.0008 (-0.1418)	5.01%	-0.0795 (-0.6052)	0.1098*** (3.1739)	0.0928 (1.1346)	-0.5073* (-1.8031)	-0.0005 (-0.0821)	4.11%

4.1.5 Excess return of political connections

To investigate the excess return driven by political connections, the pooled data would be calculated by Fama and French model (1993). As exhibited in Table 5, the average excess return between firms connected to cabinet and non-connected firms was 0.03% during 1997 to 2004. The average excess return between firms connected to politician and non-connected firms was 0.01%. However, both of them were insignificant. This result indicated that the firms connected to cabinet and firms connected to politician could drive benefits from political connections some years, not the whole of Chuan's government and Taksin's government.

In addition, other coefficients of connected firms and non-connected firms were positive significance followed the theoretic of Fama and French. They noted that the systematic factors on stock returns were size and book-to-market ratio and market capitalization.

4.1.6 Performance of connected firms

Demonstrated in Table 6 were return on asset (ROA), return on equity (ROE) and Tobin's q ratio from the regressions for the period since 1997 to 2004. In case of firms connected to cabinet, the coefficients of political connections on ROA and ROE regressions were -5.16% and -22.79% in 1998. In 2003, the coefficient on ROE was -16.29%. However, on Tobin's q ratio regression, it was 41.60% in 2004.

In case of firms connected to politician, the coefficients of political connections on ROA and Tobin's q ratio regressions were -2.32% and -12.75 in 1997. The coefficients of political connections on ROE and Tobin's q ratio regressions were -1.46% and -12.90% in 1998. Furthermore, they were -7.94% and 23.57% in 2004.

In 2003, the positive coefficient of Tobin's q ratio regression indicated that connected firms used connections to increase firm performance. On the other hand, the negative coefficient ROE regression indicated that connected firms had low performance. The conflicted result in 2003 was supported by Faccio (2002) noted that

Table 5

Advantage of political connections by Fama and French model

This table reports pooled regressions intended to explain the advantage of political connections since 1997 to 2004. The sample is divided into 2 groups which are connected firms and matched connected firms. Connected firms are connected to cabinet, otherwise, connected to politician. Matched connected firms are non-connected firms which have the same industry as connected firms one by one. The model is developed from three factors models of Fama and French (1993). $R_{it} - R_{ft} = a + m (R_{mt} - R_{ft}) + s SMB_t + h HML_t + \varepsilon_{it}$ Stock return periods are as noted in each row since 1997 to 2004. Constant is abnormal return, the advantage of political connections. RMRF is the weekly market return minus the weekly savings deposits rate. SMB is the difference between the weekly returns on a portfolio of small stocks and a portfolio of big stocks. HML is the difference between the weekly returns on a portfolio of high book-to-market and a portfolio of low book-to market. These numbers are tested significantly different from zero computed from t-tests. *, **, ***: Significant different from zero at the 10%, 5% or 1% level, respectively.

	Connected firms		Non-connected firms (Matched connected firms)		Difference between connected and non-connected firms	
	Connected to cabinet	Connected to politician	Connected to cabinet	Connected to politician	Connected to cabinet	Connected to politician
Constant	0.0009 (0.7698)	0.0016*** (2.5091)	-0.0010 (-0.8430)	0.0015** (1.9976)	0.0003 (0.1292)	0.0001 (0.0773)
RMRF	0.8721*** (17.7361)	0.8566*** (32.9118)	1.0289*** (21.8283)	0.9620*** (28.0028)	0.0263 (0.2524)	-0.1249*** (-2.9569)
SMB	0.2996*** (2.9935)	0.4609*** (8.8461)	0.3510*** (3.7677)	0.6995*** (9.0076)	-0.1416 (-0.6459)	-0.2188*** (-2.3349)
HML	0.1767*** (2.5452)	0.0654 (1.5697)	0.0866 (1.2184)	0.1348*** (2.3854)	-0.0505 (-0.3382)	-0.1027 (-1.4686)
R ²	12.36%	11.60%	18.62%	11.08%	0.17%	0.17%

Table 6
Performance of connected firms

This table reports cross-sectional regressions intended to explain performance of connected firms which are return on asset (ROA), return on equity (ROE) and Tobin's q ratio. The performance of connected firms is confirmed by Faccio (2002). Political connections are connected to cabinet, or, connected to politician. $Performance_i = a + b_1(Political\ connections)_i + b_2(Size)_i + b_3(Industry\ Scales)_i + \varepsilon_i$ "ROA" is defined as net income divided by the total asset. "ROE" is the net income divided by the total equity. "TOBIN_Q" is the book value of debt plus market value of equity divided by the book value of total asset. The control variables are size and industry. All coefficients for these control variables are also estimated but not reported. These numbers are tested significantly different from zero computed from t-tests. *, **, ***: Significant different from zero at the 10%, 5% or 1% level, respectively.

Year	Connected to cabinet			Connected to politician		
	ROA	ROE	TOBIN_Q	ROA	ROE	TOBIN_Q
1997	-0.0168 (-0.9902)	-0.0493 (-0.5361)	-0.0944 (-1.3273)	-0.0232* (-1.7392)	-0.0606 (-0.9534)	-0.1275*** (-2.3803)
1998	-0.0516* (-1.7240)	-0.2279* (-1.6474)	-0.0671 (-0.6537)	0.0080 (0.3878)	-0.0146* (-0.1684)	-0.1290** (-2.2445)
1999	-0.0367 (-1.1706)	-0.0748 (-0.6129)	-0.0419 (-0.1804)	-0.0264 (-1.2931)	-0.0661 (-0.8135)	-0.0833 (-0.9541)
2000	0.0057 (0.1876)	0.3117 (0.8396)	0.0123 (0.1047)	-0.0136 (-0.7567)	0.4725 (0.7948)	-0.0248 (-0.3843)
2001	0.0078 (0.3419)	0.1113 (1.0289)	0.104 (1.0554)	0.0071 (0.5466)	0.0475 (0.3381)	0.0563 (1.1624)
2002	-0.0014 (-0.0722)	-0.0331 (-0.7949)	0.1344 (0.5788)	0.0051 (0.3834)	-0.0431 (-0.9409)	-0.0061 (-0.0823)
2003	-0.0453 (-1.5518)	-0.1629** (-2.2386)	0.8633 (1.4826)	0.0080 (0.6228)	-0.0009 (-0.0185)	0.2314 (1.4881)
2004	-0.0161 (-0.6299)	-0.0985 (-1.6073)	0.4160** (2.1405)	-0.0171 (-1.0113)	-0.0794* (-1.8114)	0.2357** (2.2452)

there was not a clear picture as to which type of connections was associated with lower profitability.

As a whole, the firms connected to cabinet and firms connected to politician obviously had lower performance than non-connected firms during Asian financial crisis. However, these connected firms had better performance in 2004 by Tobin's q ratio regression. Furthermore, the results are consistent in general with the alternative methods presented in the Appendix A (Table 15).

4.2 Political Elections

4.2.1 Market return

Table 7 reports abnormal market returns and cumulative abnormal market returns around election announcement. Abnormal market returns increased constantly and reached the maximum at the election week, then, they decreased eventually as shown in figure 2. Moreover cumulative abnormal market returns also steadily enhanced until election week and slowly declined. However, these numbers were insignificant.

4.2.2 Market volume

Table 8 displays abnormal market volumes and cumulative abnormal market volumes around election announcement. Abnormal market volumes increased and peaked at the next week after election week as presented in figure 3. Moreover, the cumulative abnormal market volumes increased continuously and were significant at 10% level for event periods (-2, 0), (+1, +4) and (-2, +4). This indicated that the political election affected the investor reactions in the stock market during these periods.

4.2.3 Industry return

To recognize nature of industry, the abnormal industry returns and cumulative abnormal industry returns are calculated as shown in Table 9. The abnormal industry

Table 7

Abnormal return and cumulative abnormal return for market index

This table reports abnormal market return and cumulative abnormal market return around election announcement. Announcement period return results for relative week -4 to +4. Abnormal market return is the difference between actual market return and estimated market return computed as average return over the -50 week period from week -54 to week -5. Cumulative abnormal market return is sum of all abnormal market returns over the window; (-4, -3), (-2, 0), (+1, +4), (-2, +4). These numbers are tested significantly different from zero computed from t-tests. *, **, ***: Significant different from zero at the 10%, 5% or 1% level, respectively.

Window	Abnormal market return									Cumulative abnormal market return			
	-4	-3	-2	-1	0	1	2	3	4	(-4,-3)	(-2,0)	(+1,+4)	(-2,+4)
	-0.0010	-0.0017	0.0083	0.0139	0.0163	0.0005	-0.0068	-0.0028	-0.0089	-0.0027	0.0385	-0.018	0.0205
	(-0.185)	(-0.2227)	(1.2823)	(1.2678)	(1.2531)	(0.0467)	(-0.6878)	(-0.3905)	(-0.8931)	(-0.3183)	(1.5318)	(-0.8585)	(0.5453)

Figure 2

Abnormal return and cumulative abnormal return for market index

This figure shows abnormal market return and cumulative abnormal market return around election announcement. Announcement period return results for relative week -4 to +4. Abnormal market return is the difference between actual market return and estimated market return computed as average return over the -50 week period from week -54 to week -5. Cumulative abnormal market return is sum of all abnormal market returns over the window; (-4, -3), (-2, 0), (+1, +4), (-2, +4).

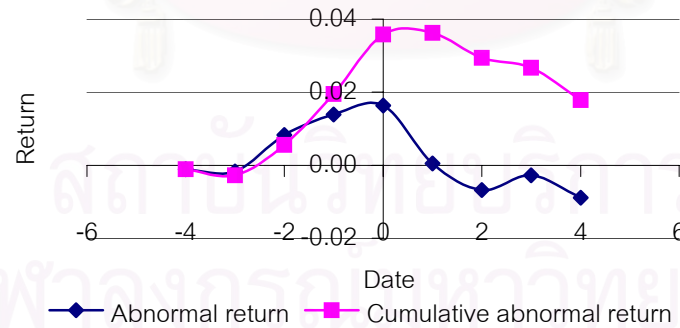


Table 8

Abnormal volume and cumulative abnormal volume for market volume

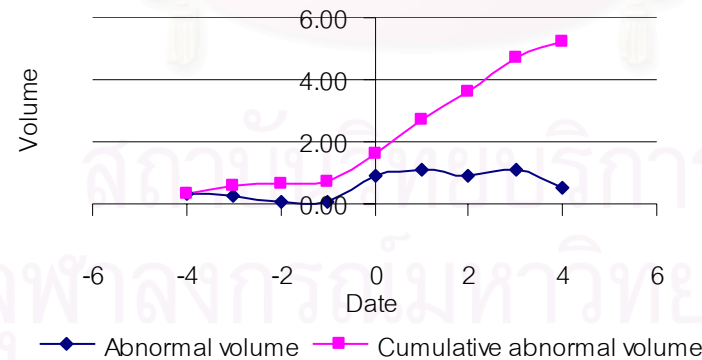
This table reports abnormal market volume and cumulative abnormal market volume around election announcement. Announcement period volume results for relative week -4 to +4. Abnormal market volume is the difference between actual market volume and estimated market volume computed as average volume over the -50 week period from week -54 to week -5 normalized by the estimated market volume. Cumulative abnormal market volume is sum of all abnormal market volumes over the window; (-4, -3), (-2, 0), (+1, +4), (-2, +4). These numbers are tested significantly different from zero computed from t-tests. *, **, ***: Significant different from zero at the 10%, 5% or 1% level, respectively.

Window	Abnormal market volume									Cumulative abnormal market volume			
	-4	-3	-2	-1	0	1	2	3	4	(-4,-3)	(-2,0)	(+1,+4)	(-2,+4)
	0.3270*	0.2609	0.0494	0.0776	0.8867***	1.0943***	0.9205	1.0779	0.5071*	0.5879	1.0138*	3.5997*	4.6135*
	(1.7940)	(1.1638)	(0.2601)	(0.5122)	(2.4448)	(2.4661)	(1.4370)	(1.5350)	(1.7563)	(1.5932)	(1.9568)	(1.8179)	(1.9387)

Figure 3

Abnormal volume and cumulative abnormal volume for market volume

This figure shows abnormal market volume and cumulative abnormal market volume around election announcement. Announcement period volume results for relative week -4 to +4. Abnormal market volume is the difference between actual market volume and estimated market volume computed as average volume over the -50 week period from week -54 to week -5 normalized by the estimated market volume. Cumulative abnormal market volume is sum of all abnormal market volumes over the window; (-4, -3), (-2, 0), (+1, +4), (-2, +4).



returns that were significant at 1% level for week -4 were Communication, Pulp and Paper. For week -2, there were Pulp and Paper, Transportation. For week -1, there were Pharmaceutical Products and Cosmetics, Printing and Publishing, Property Development. For week 0, there was Household Goods. For week 1, there were Agribusiness, Electronic Components. For week 2, there were Electronic Components, Professional Services. For week 4, there were Electronic Components, Energy, Property Development, Warehouse and Silo. Finally, there was no industry that was significant at 1% level for week -3 and week 3.

The cumulative abnormal industry returns that were significant at 1% level for week (-4, -3) were Health Care Services, Pulp and Paper. For week (-2, 0), there were Agribusiness, Mining, Pharmaceutical Products and Cosmetics, Printing and Publishing, Property Development, Transportation. For week (+1, +4), there was Energy. For week (-2, +4), there were Agribusiness, Household Goods, Warehouse and Silo.

In conclusion, the election announcement affected some industries in different time periods because the politicians might hold the stocks some industries. Therefore, the price changes depended on the numbers and industries of stocks held by politicians.

4.2.4 Industry volume

Resulted from the political elections, abnormal industry volumes and cumulative abnormal industry volumes are presented in Table10. The abnormal industry volumes that were significant at 1% level for week -4 were Machinery and Equipment, Warehouse and Silo. For week -3, there were Household Goods, Machinery and Equipment, Warehouse and Silo. For week -2, there were Electrical Products and Computer, Machinery and Equipment. For week -1 and week 0, there was Machinery and Equipment. Absolutely, there was no industry that was significant at 1% level from week 1 to week 4.

The cumulative abnormal industry returns that were significant at 1% level for week (-4, -3) were Machinery and Equipment, Professional Services, Warehouse and

Table 9

Abnormal return and cumulative abnormal return for industry indices

This table reports abnormal industry return and cumulative abnormal industry return around election announcement. Announcement period return results for relative week -4 to +4. Abnormal industry return is the difference between actual industry return and estimated industry return computed as average return over the -50 week period from week -54 to week -5. Cumulative abnormal industry return is sum of all abnormal industry returns over the window; (-4, -3), (-2, 0), (+1, +4), (-2, +4). These numbers are tested significantly different from zero computed from t-tests. *, **, ***: Significant different from zero at the 10%, 5% or 1% level, respectively.

Window	Abnormal industry return									Cumulative abnormal industry return			
	-4	-3	-2	-1	0	1	2	3	4	(-4,-3)	(-2,0)	(+1,+4)	(-2,+4)
AGRI	-0.0022 (-0.2283)	-0.0012 (-0.4987)	0.0155 (1.5493)	0.0144 (1.4981)	0.0078 (1.2884)	-0.0058*** (-3.5970)	0.0012 (0.1185)	0.0084 (1.0284)	0.0084 (1.3050)	-0.0034 (-0.4043)	0.0377*** (2.9035)	0.0122 (1.2256)	0.0499*** (2.5060)
BANK	-0.0050 (-0.7724)	0.0012* (0.1648)	0.0096* (1.7298)	0.0277** (2.0738)	0.0230 (1.3530)	0.0038 (0.6040)	0.0030 (0.1892)	-0.0025 (-0.4151)	-0.0175* (-1.7484)	-0.0038 (-0.3291)	0.0603** (2.1712)	-0.0132 (-0.4826)	0.0472 (1.0644)
BUILD	0.0017 (0.3574)	-0.0073 (-0.8486)	0.0062 (0.6586)	0.0116 (1.2713)	0.0103 (1.0643)	0.0034 (0.3051)	-0.009 (-0.9293)	-0.0026 (-0.2444)	0.0001 (0.0081)	-0.0056 (-0.6079)	0.0281 (1.3704)	-0.0081 (-0.4409)	0.0200 (0.8051)
CHEM	-0.0052 (-0.7600)	0.0058 (0.6290)	0.0108 (1.6270)	0.0098* (1.7849)	-0.0087 (-0.3504)	0.0089 (0.3718)	0.0064 (0.4500)	0.0212 (1.4692)	-0.0032 (-0.3730)	0.0006 (0.0731)	0.0118 (0.3913)	0.0333 (1.2076)	0.0451 (1.0070)
COMM	-0.0028 (-0.9896)	-0.0108 (-1.6398)	0.0123 (1.5621)	0.0051 (0.6915)	0.0039 (0.6909)	0.0052 (0.7410)	-0.0075 (-0.8189)	0.0081* (1.1682)	0.0105 (1.2003)	-0.0136 (-1.6285)	0.0212 (1.2796)	0.0163 (0.6918)	0.0376 (1.1404)
COMUN	0.0191*** (2.3674)	-0.0094 (-0.8692)	0.0354 (1.3753)	0.0402 (1.5322)	0.0181 (0.6431)	-0.0067 (-0.3499)	-0.0026 (-0.1387)	0.0181** (2.2314)	-0.0354* (-1.7254)	0.0097 (0.5657)	0.0936** (2.0861)	-0.0266 (-0.4352)	0.0670 (0.6657)
ELEC	0.0159 (1.3676)	0.0003 (0.0295)	0.0049 (1.0814)	0.0019 (0.1675)	-0.0014 (-0.1874)	0.0016 (0.2149)	-0.0078 (-0.6954)	-0.0042 (-0.5048)	-0.0128 (-1.207)	0.0162 (0.9046)	0.0054 (0.2853)	-0.0232 (-1.3349)	-0.0179 (-0.8714)
ETRON	0.0036 (0.2824)	-0.0031 (-0.2122)	0.0091 (0.6958)	0.0519** (2.0447)	-0.0101* (-1.7513)	0.0447*** (2.8563)	-0.0402*** (-2.6037)	0.0085 (0.7067)	-0.0265*** (-4.0038)	0.0005 (0.0195)	0.0509** (2.1643)	-0.0135 (-0.4689)	0.0375 (0.8176)

ENERG	-0.0078 (-1.1484)	0.0033 (0.5499)	0.0015 (0.2168)	0.0105 (1.5433)	0.0097 (0.5960)	-0.0026 (-0.305)	-0.0115 (-1.0427)	-0.0145 (-1.5803)	-0.0275*** (-4.6519)	-0.0044 (-0.4751)	0.0216 (0.9412)	-0.0561*** (-2.4898)	-0.0344 (-0.922)
ENTER	-0.0192 (-1.2609)	0.0039 (0.5475)	0.0182 (1.4034)	0.0214** (1.9748)	0.0174 (0.8967)	0.0076 (0.4766)	0.0078 (0.7692)	-0.0090 (-0.6854)	-0.0146** (-1.9944)	-0.0146** (-1.9944)	-0.0153 (-1.1537)	0.0569 (1.6273)	-0.0082 (-0.4982)
FIN	-0.0075 (-0.7469)	-0.0123 (-0.9347)	0.0118 (1.0599)	0.0203 (0.8504)	0.0271 (0.9112)	-0.0032 (-0.1705)	-0.0101 (-0.3874)	-0.0236* (-1.9234)	-0.0249 (-1.4657)	-0.0198** (-2.2496)	0.0592 (1.0579)	-0.0618 (-1.3436)	-0.0026 (-0.0297)
FOOD	-0.0047 (-1.3400)	-0.0071 (-1.0208)	0.0022 (0.3171)	0.0035 (0.5496)	0.0133 (1.4865)	0.0019 (0.1169)	-0.0102 (-1.3600)	-0.0084 (-0.7315)	0.0242 (1.1478)	-0.0117 (-1.5141)	0.0189 (1.3349)	0.0075 (0.2471)	0.0265 (0.6585)
HEALTH	-0.0144** (-2.2947)	-0.0112 (-1.5398)	0.0104 (1.2293)	0.0027 (0.2520)	-0.0050 (-0.5290)	0.0036 (0.3539)	-0.0066 (-0.7253)	-0.0044 (-0.3307)	-0.0176** (-2.0453)	-0.0256*** (-3.0407)	0.0082 (0.4587)	-0.0250 (-1.0191)	-0.0168 (-0.4559)
HOTEL	0.0018 (0.3988)	0.0064 (0.5336)	0.0008 (0.1281)	-0.0069 (-0.9692)	0.0078 (1.1287)	0.0068 (0.5718)	0.0167* (1.7069)	-0.0130 (-1.6361)	0.0043 (0.3457)	0.0082 (0.6263)	0.0017 (0.1276)	0.0148 (0.6840)	0.0165 (0.5584)
HHOLD	0.0007 (0.0564)	0.0102 (0.8609)	0.0188 (1.6124)	-0.0068 (-0.5675)	0.0185*** (3.6102)	0.0163 (1.1299)	0.0132 (0.9202)	0.0047 (0.6083)	-0.0059 (-1.5939)	0.0109 (0.5912)	0.0304 (1.3385)	0.0284 (1.4831)	0.0588*** (2.4892)
INSUR	0.0004 (0.1234)	0.0216 (1.5013)	0.0108 (1.4909)	0.0069 (0.7143)	0.0098 (1.2720)	0.0137** (2.1572)	-0.0015 (-0.3990)	0.0018 (0.4022)	-0.0069 (-1.2524)	0.0220 (1.5264)	0.0275* (1.8534)	0.0070 (0.7279)	0.0345* (1.8573)
JEWEL	0.0010 (0.0619)	-0.0029 (-0.2448)	0.0148** (2.0121)	0.0094* (1.7288)	-0.0022 (-0.1722)	0.0051 (0.6296)	-0.0128** (-2.1254)	0.0117** (2.2798)	-0.0096 (-0.7787)	-0.0019 (-0.0794)	0.0220 (1.0838)	-0.0057 (-0.2665)	0.0164 (0.4414)
MACH	-0.0133 (-1.1540)	0.0065 (0.6468)	0.0012 (0.0708)	0.0165 (1.1231)	0.0102 (1.1225)	-0.0024 (-0.1485)	-0.0212* (-1.7079)	-0.0131 (-0.8092)	0.0155 (1.0908)	-0.0068 (-0.334)	0.0278* (1.8098)	-0.0213 (-0.4933)	0.0066 (0.1199)
MINE	-0.0078 (-0.6283)	-0.0171 (-1.3208)	0.0078 (1.5443)	0.0092 (1.4472)	0.0242** (2.2300)	0.0020 (0.1829)	-0.0038 (-0.2902)	0.0043 (0.2133)	-0.0177 (-1.3715)	-0.0249 (-1.1207)	0.0413*** (2.5028)	-0.0151 (-0.4997)	0.0261 (0.9945)

PKG	0.0079 (1.0696)	-0.0163** (-2.1352)	0.0053 (1.1548)	0.0031 (0.4793)	0.0073 (1.2976)	0.0121 (1.4233)	0.0021 (0.3974)	0.0036 (0.3289)	0.0020 (0.3042)	-0.0084 (-0.8333)	0.0158* (1.7041)	0.0197 (1.2576)	0.0355** (2.1927)
PHARM	-0.0041 (-0.5922)	-0.0112 (-0.4149)	0.0188 (1.4490)	0.0145*** (2.3923)	0.0124 (0.8477)	-0.0017 (-0.1064)	-0.0009 (-0.0866)	0.0242 (0.9470)	-0.0092 (-0.8153)	-0.0153 (-0.5323)	0.0457*** (2.3521)	0.0123 (0.4147)	0.0580 (1.5874)
PRINT	-0.0069 (-0.7254)	-0.0019 (-0.2455)	0.0123* (1.1671)	0.0238*** (3.5407)	0.0077 (0.9632)	-0.0014 (-0.1636)	-0.0010 (-0.0872)	-0.0092 (-1.1108)	-0.0039 (-0.3171)	-0.0088 (-0.69170)	0.0438*** (2.6593)	-0.0155 (-0.4863)	0.0282 (0.9127)
PROF	0.0283 (0.7163)	0.0268** (1.9754)	0.0072 (0.4214)	0.0057 (0.7332)	0.0322 (1.1558)	0.0119 (1.2445)	-0.0207*** (-3.5452)	0.0133 (1.3607)	-0.0052 (-0.989)	0.0550 (1.2359)	0.0451** (2.0638)	-0.0006 (-0.0782)	0.0445* (1.6624)
PROP	0.0104 (1.3489)	-0.0029 (-0.2008)	0.0131 (0.6591)	0.0260*** (2.4326)	0.0513** (2.3048)	0.0219 (1.0214)	-0.0071 (-0.2793)	-0.0069 (-0.4866)	-0.0354*** (-4.4215)	0.0075 (0.4884)	0.0904*** (2.6274)	-0.0275 (-0.5333)	0.0629 (0.8063)
PULP	-0.0101*** (-2.6398)	-0.0126** (-1.9977)	0.0062*** (3.4962)	0.0073 (0.9954)	-0.0004 (-0.0891)	0.0134 (1.3120)	0.009 (0.7156)	0.0213 (1.5047)	0.0148 (1.0017)	-0.0227*** (-2.5053)	0.013 (1.3518)	0.0584 (1.4750)	0.0714 (1.6447)
TEXT	0.0024 (0.6401)	0.0037 (0.8104)	0.0010 (0.2019)	0.0012 (0.0898)	0.0038 (0.3806)	0.0003 (0.0343)	-0.0125 (-1.3695)	0.0101 (1.0605)	-0.0035 (-0.3401)	0.0061 (1.2016)	0.0060 (0.2573)	-0.0055 (-0.2337)	0.0005 (0.0130)
TRANS	0.0003 (0.0374)	-0.0005 (-0.0394)	0.0428*** (2.4295)	0.0217* (1.9240)	0.0208 (0.9805)	-0.0082 (-0.6025)	-0.0176 (-1.0839)	0.0081 (0.8293)	-0.0277* (-1.9342)	-0.0002 (-0.0192)	0.0852*** (3.3942)	-0.0454 (-1.3996)	0.0399 (0.8752)
VEHIC	0.0035 (0.2538)	-0.0016 (-0.3024)	0.0165** (2.2643)	0.0184 (1.6416)	-0.0018 (-0.2720)	-0.0124 (-0.6397)	0.0013 (0.1418)	-0.0029 (-0.2935)	-0.0047 (-0.9084)	0.0019 (0.1081)	0.0330** (2.1924)	-0.0187 (-0.9307)	0.0143 (0.4246)
SILO	0.0121 (1.0608)	0.0067 (1.1751)	0.0023 (0.1943)	0.0125 (1.1427)	0.0140* (1.9538)	0.0209 (1.4041)	0.0195 (1.2493)	0.0051 (0.2309)	0.0206*** (2.3638)	0.0188* (1.7140)	0.0288*** (3.2947)	0.0661* (1.9304)	0.0949*** (2.4147)

Table 10

Abnormal volume and cumulative abnormal volume for industry volume

This table reports abnormal industry volume and cumulative abnormal industry volume around election announcement. Announcement period volume results for relative week -4 to +4. Abnormal industry volume is the difference between actual industry volume and estimated industry volume computed as average volume over the -50 week period from week -54 to week -5 normalized by the estimated industry volume. Cumulative abnormal industry volume is sum of all abnormal industry volumes over the window; (-4, -3), (-2, 0), (+1, +4), (-2, +4). These numbers are tested significantly different from zero computed from t-tests. *, **, ***: Significant different from zero at the 10%, 5% or 1% level, respectively.

Window	Abnormal industry volume									Cumulative abnormal industry volume			
	-4	-3	-2	-1	0	1	2	3	4	(-4,-3)	(-2,0)	(+1,+4)	(-2,+4)
AGRI	0.0498 (0.1784)	0.1248 (0.3787)	0.4778 (1.3935)	-0.0065 (-0.0318)	-0.0183 (-0.1116)	0.0321 (0.1338)	0.1481 (0.4619)	0.6914 (1.1914)	0.9034* (1.8653)	0.1745 (0.3132)	0.4530 (0.8055)	1.4880 (1.0815)	1.9860 (1.1733)
BANK	0.1875 (1.1482)	0.4626 (0.8185)	4.1389 (0.9973)	0.1073 (0.2761)	1.7028** (2.0183)	1.7261** (2.1493)	1.9426 (1.4700)	2.6359 (1.2754)	1.2242 (1.1635)	0.6501 (1.0551)	5.9489 (1.4252)	7.5288 (1.4866)	13.4777* (1.8967)
BUILD	0.2364 (1.0669)	0.1692 (0.5660)	0.0313 (0.1302)	0.0058 (0.0257)	0.2859 (1.0253)	0.7174* (1.6796)	0.4523 (1.0473)	0.8786* (1.7833)	0.3892 (1.1112)	0.4056 (0.8518)	0.3230 (0.4890)	2.4375* (1.7068)	2.7605 (1.4637)
CHEM	0.4598 (1.0721)	0.1887 (0.6816)	-0.1502 (-0.7244)	-0.2543 (-1.4244)	0.1051 (0.4218)	0.3413 (1.3683)	0.4728 (1.2125)	0.7741 (1.1170)	0.1333 (0.3631)	0.8707 (1.2871)	0.0672 (0.1155)	2.4074 (1.4866)	3.0707 (1.6100)
COMM	-0.0264 (-0.1674)	0.6202 (0.7931)	0.4666 (0.7791)	-0.0078 (-0.0286)	0.2915 (0.8485)	-0.0135 (-0.0548)	0.1645 (0.3751)	2.1243 (1.1705)	0.3334 (0.9206)	0.7362 (0.7794)	0.9871 (1.2786)	2.6086 (1.3759)	4.1483 (2.0002)
COMUN	-0.0445 (-0.1506)	-0.1374 (-0.7127)	0.0440 (0.1390)	0.3510 (0.9380)	0.6327 (1.4861)	0.7176* (1.7116)	0.4560 (0.9762)	0.2040 (0.6615)	-0.1287 (-0.6356)	-0.1819 (-0.3826)	1.0277 (1.2516)	1.2489 (1.1934)	2.2766 (1.5503)
ELEC	0.3644 (0.7350)	0.1432 (0.4059)	-0.4119*** (-2.9979)	0.1704 (0.5729)	-0.0786 (-0.3979)	0.1771 (0.5657)	-0.2003 (-0.9045)	0.1295 (0.2797)	-0.1785 (-0.8242)	0.6313 (0.7563)	-0.3201 (-0.6303)	0.2176 (0.2142)	0.1362 (0.1051)
ETRON	0.3017 (0.9689)	0.2038 (0.6157)	0.2683 (0.4573)	1.1823 (1.5474)	0.8965 (1.1316)	5.0596** (2.2953)	1.9157 (1.2324)	1.7474 (1.5923)	0.6288 (1.1953)	0.5055 (0.8832)	2.3471 (1.3148)	9.3516*** (2.3411)	11.6987** (2.3219)

ENERG	0.4294 (0.5459)	1.1399 (0.7644)	-0.0388 (-0.0905)	-0.2910* (-1.6528)	0.2826 (0.9454)	0.8205 (0.8996)	0.2731 (0.5362)	0.1581 (0.4007)	-0.3103* (-1.6920)	1.5693 (0.6891)	-0.0472 (-0.0597)	0.9414 (0.4963)	0.8942 (0.3402)
ENTER	0.3503 (0.6655)	1.7618 (0.7962)	1.4533 (0.9814)	0.3938 (0.9264)	0.5578 (1.2599)	2.2184 (1.3823)	1.6724** (2.1261)	0.1633 (0.4914)	-0.1372 (-0.3989)	2.1121 (0.7813)	2.4049 (1.0899)	3.9169 (1.3563)	6.3217 (1.2742)
FIN	0.1504 (0.8090)	-0.0357 (-0.2698)	5.4144 (1.0072)	0.3100* (1.7281)	1.4457** (2.1702)	1.5076* (1.8668)	0.9928 (1.1289)	0.5648 (0.9014)	0.4624 (1.5009)	0.1147 (0.3900)	7.4110 (1.4339)	3.9652 (1.5495)	11.3761* (1.9124)
FOOD	0.6463 (1.0241)	1.2559 (0.9321)	-0.3637* (-1.6608)	-0.2782 (-0.8750)	1.7967 (0.8486)	1.6623 (0.9787)	0.8765 (1.5096)	0.7956 (1.0408)	2.4471 (1.2455)	2.234 (1.2228)	1.4154 (0.5170)	5.6351 (1.2470)	7.3161 (0.9431)
HEALTH	0.2794 (0.8282)	-0.0648 (-0.2511)	-0.1571 (-0.4279)	-0.0154 (-0.0320)	1.7597 (1.2312)	3.1215 (1.5024)	1.0398 (1.1345)	0.9044 (0.9417)	0.2842 (0.5565)	0.2146 (0.3744)	1.5872 (0.9698)	5.3499 (1.3520)	6.9371 (1.2821)
HOTEL	2.6977 (1.0230)	1.0088 (1.3228)	2.7729 (1.4984)	0.2036 (0.3431)	1.0791* (1.7369)	1.5271* (1.9270)	1.2098 (1.3638)	1.2698 (1.1633)	5.5401 (1.3746)	3.8682 (1.1601)	4.2472 (1.5196)	9.7347* (1.9538)	13.9819** (1.9785)
HHOLD	-0.2870 (-0.9583)	-0.5361*** (-3.4486)	1.2318 (1.0399)	1.0217* (1.6890)	2.4020 (1.5871)	3.8258 (1.6132)	3.833 (1.4403)	2.7005 (1.3492)	0.9657 (1.2435)	-0.5287 (-0.9615)	5.5498** (2.1073)	15.0701* (1.6804)	20.6199* (1.8743)
INSUR	0.2046 (0.4440)	1.7650 (1.0907)	1.1326 (0.9305)	2.6557 (1.2381)	0.4653 (1.2215)	2.5483 (1.4574)	1.5726 (0.9462)	1.1456 (0.9234)	2.2693 (1.3892)	0.6334 (0.4067)	4.9749 (1.3428)	7.5223 (1.3380)	12.9189 (1.3337)
JEWEL	0.7260 (0.5631)	0.9410 (0.6145)	-0.0779 (-0.1524)	-0.0549 (-0.0985)	0.3403 (0.8453)	0.3852 (0.7845)	-0.1381 (-0.5316)	0.4402 (0.4520)	-0.3038* (-1.6882)	2.0004 (0.7099)	0.2490 (0.1811)	0.4601 (0.2494)	0.7091 (0.2215)
MACH	-0.7794*** (-13.7114)	-0.8560*** (-26.4405)	-0.7230*** (-9.2956)	-0.8198*** (-14.2621)	-0.7201*** (-9.0677)	3.5969 (1.1585)	2.1829 (0.9268)	0.4524 (0.6172)	1.1281 (1.0183)	-1.6354*** (-18.9797)	-2.2630*** (-9.5425)	7.3603 (0.8795)	5.0974 (0.6120)
MINE	0.9239 (0.9137)	0.1128 (0.3802)	0.1792 (0.3183)	-0.1789 (-0.7528)	-0.0218 (-0.0740)	0.9578 (1.3287)	0.3455 (0.4015)	0.6943 (0.7044)	0.2094 (0.2845)	1.0039 (0.7636)	-0.0215 (-0.0235)	2.4158 (0.6706)	2.3943 (0.5628)

PKG	0.9990 (1.2710)	0.7436 (1.2367)	6.5253 (1.1032)	0.1653 (0.5542)	0.2706 (0.5898)	1.1816 (1.5406)	0.1458 (0.4251)	0.4572 (1.1955)	0.4179 (0.8154)	1.7426 (1.2715)	6.9612 (1.1334)	2.2025 (1.2204)	9.1638 (1.2124)
PHARM	-0.5169** (-2.1471)	0.2767 (0.4629)	-0.2396 (-0.6645)	-0.2675 (-0.6823)	-0.3568 (-1.1019)	0.0454 (0.0814)	-0.3862* (-1.7109)	0.7730 (0.6084)	0.1364 (0.3527)	-0.2402 (-0.3290)	-0.8639 (-0.8396)	0.6299 (0.2870)	-0.2245 (-0.0751)
PRINT	0.5411 (1.2573)	-0.0405 (-0.1492)	0.1380 (0.2876)	0.4972 (0.9817)	0.2736 (0.8428)	0.5891 (1.1026)	0.0806 (0.3062)	-0.0757 (-0.2649)	0.5578 (0.5878)	0.5006 (0.7287)	0.9088 (0.7536)	1.5919 (0.9758)	3.0053 (1.2387)
PROF	1.7357* (1.8270)	1.4826 (1.4212)	0.3073 (0.4763)	-0.2938 (-1.3805)	0.0482 (0.1515)	0.6751 (0.8544)	0.3815 (0.6749)	-0.5189** (-2.2379)	0.0278 (0.1035)	3.2182*** (2.5904)	-0.1379 (-0.2416)	0.7003 (0.3926)	0.7406 (0.2846)
PROP	0.683 (1.3598)	0.2376 (0.6378)	0.5427 (1.5174)	0.1513 (0.4564)	1.1321* (1.8029)	1.2486* (1.8865)	1.3564 (1.4253)	0.8202 (1.2770)	0.3214* (1.7958)	0.9206 (1.1192)	1.8261** (2.1625)	3.7466 (1.6210)	5.5728** (2.1754)
PULP	0.0921 (0.2790)	-0.2410 (-0.9602)	-0.2696* (-1.8665)	0.1501 (0.3392)	-0.3888*** (-2.4714)	0.4933 (1.1813)	1.4891 (0.9307)	2.6641 (1.3868)	3.7422 (1.2122)	-0.1489 (-0.2632)	-0.4224 (-0.6175)	7.3008 (1.2135)	8.3744 (1.2550)
TEXT	1.0014 (1.4990)	0.9383 (1.2236)	4.5934 (1.0461)	0.7356 (1.0752)	0.8391* (1.6605)	1.2700** (2.2840)	0.7725 (1.3817)	1.3935* (1.7281)	1.0590 (1.4722)	1.9398* (1.6836)	6.2906 (1.3252)	4.4950* (1.8154)	10.7856* (1.8070)
TRANS	-0.0065 (-0.0162)	0.4159 (0.6049)	3.2102 (1.0460)	3.1012 (1.0065)	1.6297** (1.9824)	2.1907* (1.6594)	0.9217 (1.4101)	0.4066 (0.7033)	0.1616 (0.4218)	0.2047 (0.1914)	3.9706 (0.6051)	1.8403 (0.6492)	5.8109 (0.6642)
VEHIC	-0.1314 (-0.4870)	0.1334 (0.1836)	0.7997 (0.6383)	1.0512 (0.7449)	-0.0736 (-0.0033)	0.6606 (0.9893)	0.5154 (1.3282)	0.5277 (0.9051)	0.9603 (1.1129)	0.1092 (0.1129)	2.1938 (0.6603)	2.9358 (1.4358)	5.1296 (1.0481)
SILO	-0.4792*** (-2.8071)	-0.4353*** (-2.9662)	1.9642 (0.8438)	-0.1534 (-0.5793)	0.0161 (0.0457)	1.1183 (1.6142)	0.7795 (1.2167)	1.4251 (1.5304)	2.1436 (1.0226)	-0.9145*** (-3.2903)	1.9946 (0.7255)	5.4664* (1.6570)	8.5706* (1.9185)

Silo. For week (-2, 0), there was Machinery and Equipment. For week (+1, +4), there was Electronic Components. There was no industry signified at 1% level for week (-2, +4).

In conclusion, the election announcement also affected some industries in different time periods. Moreover, abnormal volumes and cumulative abnormal volumes of these industries reflected the sum of differences in investor reactions due to an announcement.

4.2.5 Stock return

Table 11 shows abnormal returns and cumulative abnormal returns for connected firms and non-connected firms in 2001 and 2005. In 2001, the abnormal returns peaked at week 2 which firms connected to cabinet were higher than those of firms connected to politician and much higher than non-connected firms as seen in figure 4. Cumulative abnormal returns were presented in figure 5, they steadily increased until week 2 and then they scarcely reduced all three cases. Moreover, cumulative abnormal returns for week (+1, +4) and (-2, +4) were significant in case of firms connected to cabinet and cumulative abnormal returns for week (-2, 0), (+1, +4) and (-2, +4) were significant in case of firms connected to politician and non-connected firms.

In 2005, the abnormal returns of all three cases were also not stable, nevertheless, most of them were high during the last two week as shown in figure 6. However, cumulative abnormal returns reached the maximum at week 1 and were significant for week (-2, 0), (+1, +4) and (-2, +4). in case of firms connected to cabinet and firms connected to politician. In case of non-connected firms, they were significant week (-4, -3), (-2, 0) and (-2, +4) as seen in figure 7.

The result showed that abnormal returns and cumulative abnormal returns of connected firms and those of non-connected firms moved the same direction both 2001 and 2005. Therefore, the political election affected the price change of connected firms and non-connected firms.

Table 11

Abnormal return and cumulative abnormal return for connected firms and non-connected firms

This table reports abnormal return and cumulative abnormal return around election announcement. The sample is divided into 3 groups which are firms connected to cabinet, firms connected to politician and non-connected firms. Announcement period return results for relative week -4 to +4. Abnormal return is the difference between actual return and estimated return computed as average return over the -50 week period from week -54 to week -5. Cumulative abnormal return is sum of all abnormal returns over the window; (-4, -3), (-2, 0), (+1, +4), (-2, +4). These numbers are tested significantly different from zero computed from t-tests. *, **, ***: Significant different from zero at the 10%, 5% or 1% level, respectively.

Window	Abnormal return									Cumulative abnormal return			
	-4	-3	-2	-1	0	1	2	3	4	(-4,-3)	(-2,0)	(+1,+4)	(-2,+4)
2001													
Connected to cabinet	0.0050 (0.1924)	0.0019 (0.4574)	-0.0172 (-0.6073)	0.0320*** (2.9362)	0.0298 (1.1678)	0.0426* (1.8195)	0.0860*** (2.4849)	0.0036 (0.2393)	-0.0161 (-0.5287)	0.0070 (0.2699)	0.0447 (0.9419)	0.1161** (2.3013)	0.1608* (1.7474)
Connected to politician	0.0103 (1.0235)	-0.0047 (-1.0436)	0.0138 (1.4527)	0.0340*** (5.1391)	0.0340*** (2.6520)	0.0215 (1.6279)	0.0620*** (3.4680)	0.0031 (0.4891)	-0.0146 (-1.4900)	0.0056 (0.5838)	0.0818*** (4.3803)	0.0719*** (3.2842)	0.1538*** (4.2089)
Non-connected	0.0096* (1.8194)	-0.0147*** (-2.7940)	0.0207 (5.0933)	0.0208*** (4.1666)	0.0374*** (4.2225)	0.0081 (1.3081)	0.0369*** (4.5612)	0.0051 (0.8549)	-0.0083** (-2.1299)	-0.0051 (-0.8751)	0.0789*** (7.3825)	0.0417*** (4.0064)	0.1206*** (6.8263)
2005													
Connected to cabinet	0.0231 (1.2516)	-0.0046 (-0.3605)	0.0273*** (3.3160)	0.0349*** (5.6663)	0.0292*** (3.0866)	0.0150* (1.7619)	-0.0218*** (-2.7618)	-0.0262*** (-3.4337)	-0.0195** (-2.2545)	0.0185 (0.7899)	0.0914*** (5.6724)	-0.0525*** (-4.3936)	0.0389** (2.1102)
Connected to politician	0.0058 (0.7259)	0.0021 (0.3557)	0.0280*** (3.7529)	0.0234*** (5.5069)	0.0289*** (3.7378)	0.0156*** (2.8032)	-0.0112*** (-2.2769)	-0.0354*** (-5.1701)	-0.0110*** (-2.6439)	0.0079 (0.7904)	0.0802*** (6.7698)	-0.0420*** (-4.6970)	0.0383*** (2.6452)
Non-connected	0.0187*** (4.6718)	0.0108** (2.0052)	0.0224*** (6.5391)	0.0312*** (7.3271)	0.0166*** (4.4944)	0.0293*** (5.3161)	-0.0097*** (-2.3614)	-0.0204*** (-4.0915)	-0.0082** (-2.1737)	0.0295*** (3.7886)	0.0702*** (9.8167)	-0.0090 (-0.9487)	0.0613*** (4.7583)

Figure 4

Abnormal returns for connected firms and non-connected firms in 2001

This figure shows abnormal returns around election announcement in 2001. The sample is divided into 3 groups which are firms connected to cabinet, firms connected to politician and non-connected firms. Announcement period return results for relative week -4 to +4. Abnormal return is the difference between actual return and estimated return computed as average return over the -50 week period from week -54 to week -5.

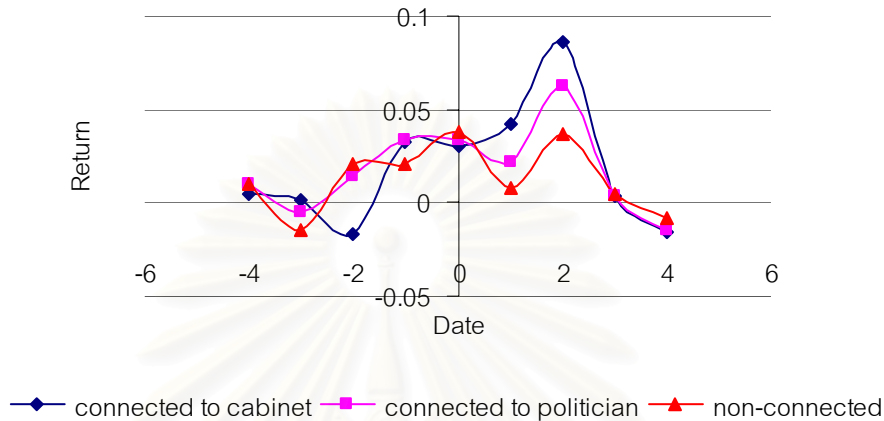


Figure 5

Cumulative abnormal returns for connected firms and non-connected firms in 2001

This figure shows cumulative abnormal returns around election announcement in 2001. The sample is divided into 3 groups which are firms connected to cabinet, firms connected to politician and non-connected firms. Announcement period return results for relative week -4 to +4. Abnormal return is the difference between actual return and estimated return computed as average return over the -50 week period from week -54 to week -5. Cumulative abnormal return is sum of all abnormal returns over the window; (-4, -3), (-2, 0), (+1, +4), (-2, +4).

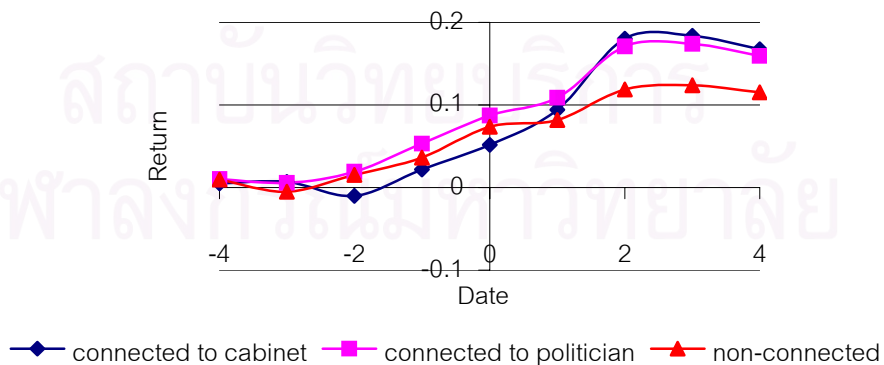


Figure 6
Abnormal returns for connected firms and non-connected firms in 2005

This figure shows abnormal returns around election announcement in 2005. The sample is divided into 3 groups which are firms connected to cabinet, firms connected to politician and non-connected firms. Announcement period return results for relative week -4 to +4. Abnormal return is the difference between actual return and estimated return computed as average return over the -50 week period from week -54 to week -5.

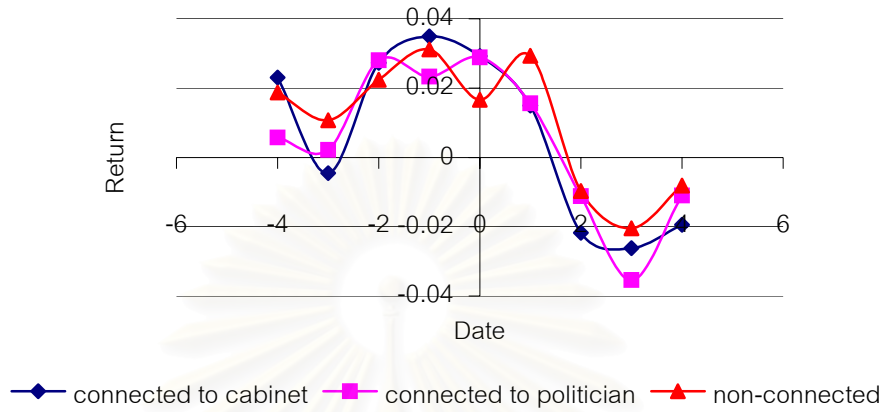
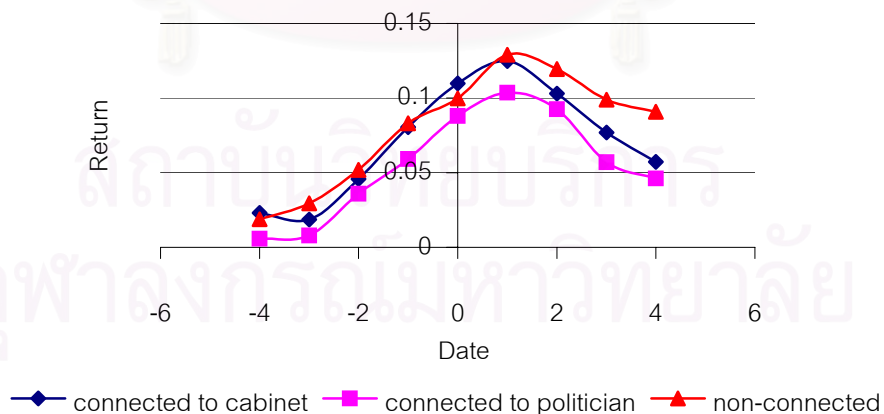


Figure 7
Cumulative abnormal returns for connected firms and non-connected firms in 2005

This figure shows cumulative abnormal returns around election announcement in 2005. The sample is divided into 3 groups which are firms connected to cabinet, firms connected to politician and non-connected firms. Announcement period return results for relative week -4 to +4. Abnormal return is the difference between actual return and estimated return computed as average return over the -50 week period from week -54 to week -5. Cumulative abnormal return is sum of all abnormal returns over the window; (-4, -3), (-2, 0), (+1, +4), (-2, +4).



4.2.6 Stock volume

Table 12 illustrates abnormal volumes and cumulative abnormal volumes for connected firms and non-connected firms in 2001 and 2005. In 2001, the abnormal volumes of firms connected to cabinet, firms connected to politician and non-connected firms were high in week 2 as displayed in figure 8. The trends were alike abnormal returns which peaked the last two weeks and were much higher in case of firms connected to cabinet. In figure 9, cumulative abnormal volumes tended to increase since election week. In addition, they were significant week (+1, +4) and (-2, +4) in case of firms connected to cabinet and firms connected to politician. In case of non-connected firms, they were significant week (-4, -3), (+1, +4) and (-2, +4).

In 2005, the abnormal volumes of connected firms were not stable, most of them were high in week 1 as shown in figure 10. In figure 11, cumulative abnormal volumes increased continuously. In addition, they were significant week (-4, -3), (-2, 0), and (-2, +4) in case of firms connected to cabinet. In case of firms connected to politician and non-connected firms, they were significant week (-4, -3), (-2, 0), (+1, +4) and (-2, +4).

As a whole, abnormal volumes and cumulative abnormal volumes of connected firms were significant around election date in 2001 and 2005. The significant periods of them were expanded in case of non-connected firms. This showed the investors thought that the connected firms would have stronger connections at election announcement.

Table 12

Abnormal volume and cumulative abnormal volume for connected firms and non-connected firms

This table reports abnormal volume and cumulative abnormal volume around election announcement. The sample is divided into 3 groups which are firms connected to cabinet, firms connected to politician and non-connected firms. Announcement period volume results for relative week -4 to +4. Abnormal volume is the difference between actual volume and estimated volume computed as average volume over the -50 week period from week -54 to week -5 normalized by the estimated volume. Cumulative abnormal volume is sum of all abnormal volumes over the window; (-4, -3), (-2, 0), (+1, +4), (-2, +4). These numbers are tested significantly different from zero computed from t-tests. *, **, ***: Significant different from zero at the 10%, 5% or 1% level, respectively.

Window	Abnormal volume									Cumulative abnormal volume			
	-4	-3	-2	-1	0	1	2	3	4	(-4,-3)	(-2,0)	(+1,+4)	(-2,+4)
2001													
Connected to cabinet	3.4715 (0.9970)	-0.4248*** (-2.3836)	-0.7661*** (-9.0175)	-0.3563 (-1.1519)	1.3959 (1.3024)	2.6317 (1.5758)	3.9788** (2.1950)	2.0464** (2.0834)	0.1098 (0.3116)	3.0467 (0.8367)	0.2735 (0.1975)	8.7666** (2.1472)	9.0401* (1.7239)
Connected to politician	2.1142 (1.0375)	0.3242 (0.4886)	-0.2054 (-0.4687)	-0.3519** (-2.1239)	1.2867*** (2.3630)	1.6770*** (2.6103)	2.9422** (2.2011)	2.8625* (1.7332)	0.4973 (1.2478)	2.4384 (0.9216)	0.7295 (0.7234)	7.9790*** (2.5343)	8.7085** (2.1593)
Non-connected	-0.4658*** (-5.2014)	-0.3157** (-2.1816)	1.174 (0.7971)	0.0634 (0.1984)	1.6650*** (4.8028)	2.3554*** (4.0773)	2.8400*** (4.5706)	1.6524*** (3.3284)	0.6797*** (2.4111)	-0.7816*** (-3.8582)	2.9024 (1.4783)	7.5274*** (5.1920)	10.4298*** (3.4548)
2005													
Connected to cabinet	0.8130*** (2.5145)	1.3070*** (2.3331)	1.1825 (1.5790)	0.6384** (2.0894)	1.5128*** (3.0571)	1.6911** (2.1575)	0.1040 (0.5219)	0.1831 (0.9579)	-0.0064 (-0.0406)	2.1200*** (2.6599)	3.3337*** (2.4301)	1.9719 (1.6112)	5.3056** (2.1397)
Connected to politician	0.2308 (1.4355)	0.5175** (2.0597)	0.5576 (1.5915)	0.5662** (2.2191)	1.7793*** (2.9309)	2.3181*** (2.8981)	0.5172** (2.0620)	0.4199* (1.7368)	0.3559 (1.1780)	0.7483** (2.0361)	2.9030*** (2.9793)	3.6111*** (2.3945)	6.5141*** (2.7791)
Non-connected	0.4714*** (2.5959)	0.7349*** (3.1558)	1.0968*** (2.5506)	0.7376*** (4.0866)	1.057*** (3.0261)	2.0251*** (3.9395)	1.0489*** (3.2775)	1.9848*** (3.0116)	2.0389*** (2.3962)	1.2063*** (3.3563)	2.8914*** (3.4452)	7.0976*** (3.8919)	9.9890*** (3.9992)

Figure 8
Abnormal volumes for connected firms and non-connected firms in 2001

This figure shows abnormal volumes around election announcement in 2001. The sample is divided into 3 groups which are firms connected to cabinet, firms connected to politician and non-connected firms. Announcement period volume results for relative week -4 to +4. Abnormal volume is the difference between actual volume and estimated volume computed as average volume over the -50 week period from week -54 to week -5 normalized by the estimated volume.

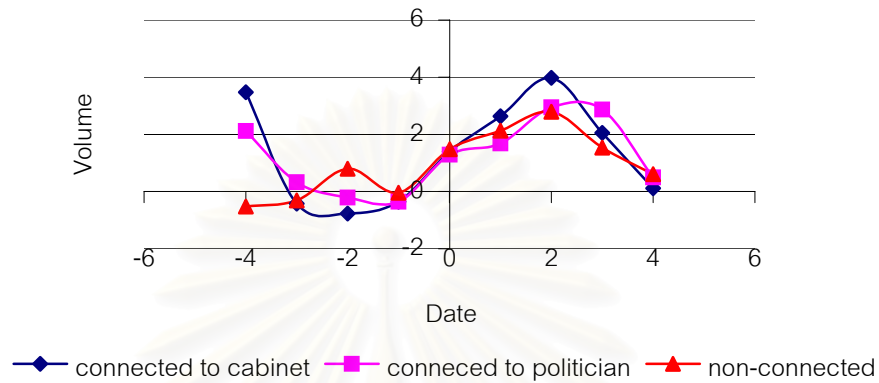


Figure 9

Cumulative abnormal volumes for connected firms and non-connected firms in 2001

This figure shows cumulative abnormal volumes around election announcement in 2001. The sample is divided into 3 groups which are firms connected to cabinet, firms connected to politician and non-connected firms. Announcement period volume results for relative week -4 to +4. Abnormal volume is the difference between actual volume and estimated volume computed as average volume over the -50 week period from week -54 to week -5 normalized by the estimated volume. Cumulative abnormal volume is sum of all abnormal volumes over the window; (-4, -3), (-2, 0), (+1, +4), (-2, +4).

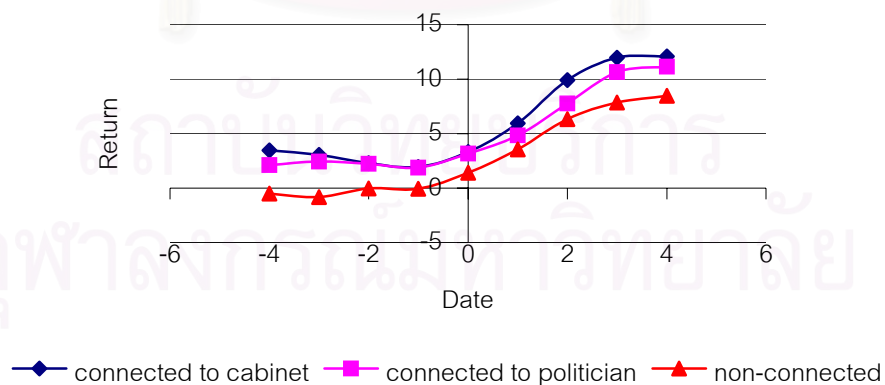


Figure 10

Abnormal volumes for connected firms and non-connected firms in 2005

This figure shows abnormal volumes around election announcement in 2005. The sample is divided into 3 groups which are firms connected to cabinet, firms connected to politician and non-connected firms. Announcement period volume results for relative week -4 to +4. Abnormal volume is the difference between actual volume and estimated volume computed as average volume over the -50 week period from week -54 to week -5 normalized by the estimated volume.

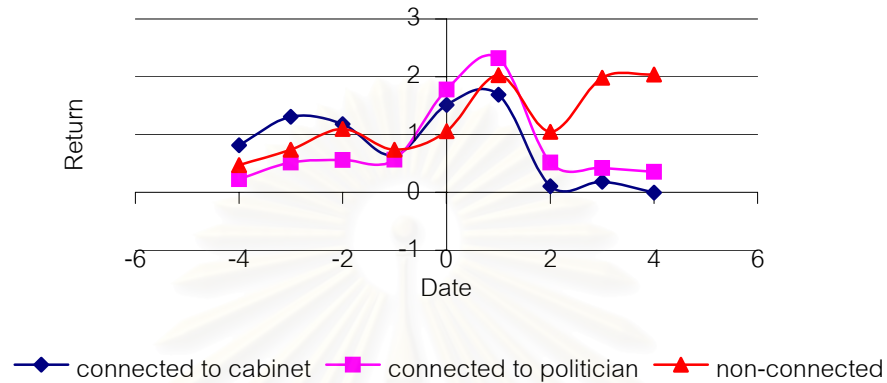
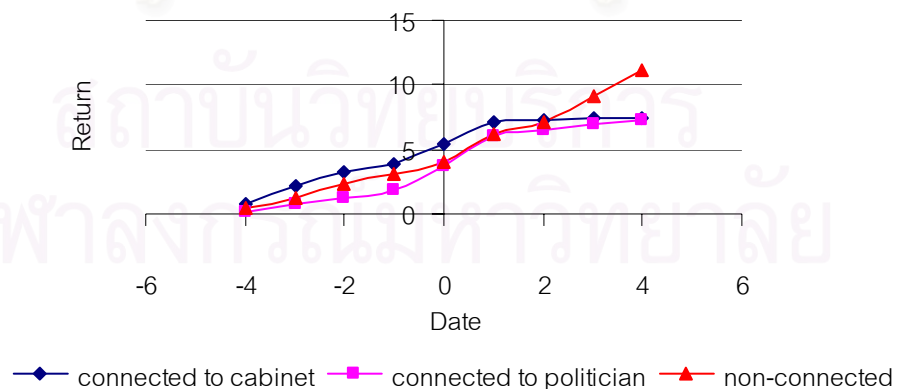


Figure 11

Cumulative abnormal volumes for connected firms and non-connected firms in 2005

This figure shows cumulative abnormal volumes around election announcement in 2005. The sample is divided into 3 groups which are firms connected to cabinet, firms connected to politician and non-connected firms. Announcement period volume results for relative week -4 to +4. Abnormal volume is the difference between actual volume and estimated volume computed as average volume over the -50 week period from week -54 to week -5 normalized by the estimated volume. Cumulative abnormal volume is sum of all abnormal volumes over the window; (-4, -3), (-2, 0), (+1, +4), (-2, +4).



CHAPTER V

CONCLUSION AND RECOMMENDATION

5.1 Conclusion

This thesis establishes several findings on the relationship between politics and finance, by looking at connected firms for 1,609 samples across 30 industries in 8 years. First, even by taking a concept of “connected firms” (i.e., by looking at whether a firm’s major shareholder has the same family name as the politician), the percentages of connected firms trend to increase continuously since changing government in 2001. Second, the connected firms extract significant benefits in terms of higher leverage, lower taxation and higher market power. The benefits obviously appeared in 2001 when firms were connected to cabinet. Third, the firms connected to cabinet increased stock returns 43.35% due to political connections in 2003. The firms connected to politician suffered from poor consequences with -25.16% during Asian financial crisis. Fourth, on average, the average excess return between firms connected to cabinet and non-connected firms was 0.03% during 1997 to 2004. The average excess return between firms connected to politician and non-connected firms was 0.01%. Nevertheless, both of them were insignificant. Fifth, the firms connected to cabinet and firms connected to politician obviously had lower performance than non-connected firms during Asian financial crisis but they had better performance in 2004.

Finally, on average, political election insignificantly increases stock returns at the election week. However, political election affects the investor reactions in trading volume at the next week after election week. In case of industry index and industry volume, the election announcement affects some industries in different time periods. When the firms are divided into 3 groups which are firms connected to cabinet, firms connected to politician and non-connected firms, the political election affects the price changes of three groups in similar directions. Nevertheless, the event period of connected firms is only significant around election date in case of trading volume. This shows the investors thought that the connected firms would have stronger connections at announcement date.

Taken as a whole, our evidence implied that connected firms tend to increase a lot in the future in order to drive benefits from political connections. However, connected firms outstandingly outperform in some years. In addition, the political election affects both connected firms and non-connected firms.

5.2 Limitation

The limitations of this study are related to incomplete data such as the financial ratio, stock price and major shareholder. Some firms are excluded for this reason. Moreover, a firm which is held by a politician's relation indicates as outside connected firms due to the different family name.

In addition, the period of this study from Chuan's term through Taksin's term as Prime Minister (1997-2004) included the year of economic crisis (1997) in Thailand. The results of the crisis may, more or less, have affected the stock market. Such results could be the level of investor awareness and confidence towards the Thai stock market, the weak fundamental of stocks being negatively affected by the crisis.

5.3 Recommendation

The study has examined the impact of political connection in the Stock Exchange of Thailand (SET), however, there are other factors that should be considered for the future research. The adding and subtracting of some controlled variables may also provide new findings that influence on rate of return and performance. In the view of political election, the cumulative abnormal returns and cumulative abnormal volumes should be expanded to examine nonparametric tests (e.g. the sign test).

Moreover, the impact of political connection and political election in the case of Thailand and other developing countries such as Indonesia and Malaysia should be compared.

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APPENDICES

สถาบันวิทยบริการ
จุฬาลงกรณ์มหาวิทยาลัย

APPENDIX A

This section contributes to the alternative method using to compare with the main model for political connections and stock return regression and firm performance regression. The control variables of two methods are difference. The alternative method use Sector Dummies substituted for Industry Scales.



สถาบันวิทยบริการ
จุฬาลงกรณ์มหาวิทยาลัย

Table 13
Industry Code of the Stock Exchange of Thailand

Industry Code is divided into 30 industries categorized by industry classification code of the Stock Exchange of Thailand. Number code and industry code are ranked by alphabet of industry name.

Number Code	Industry name	Industry Code
1	Agribusiness	AGRI
2	Banking	BANK
3	Building and Furnishing Materials	BUILD
4	Chemicals and Plastics	CHEM
5	Commerce	COMM
6	Communication	COMUN
7	Electrical Products and Computer	ELEC
8	Electronic Components	ETRON
9	Energy	ENERG
10	Entertainment and Recreation	ENTER
11	Finance and Securities	FIN
12	Foods and Beverages	FOOD
13	Health Care Services	HEALTH
14	Hotels and Travel Services	HOTEL
15	Household Goods	HHOLD
16	Insurance	INSUR
18	Jewelry and Ornaments	JEWEL
19	Machinery and Equipment	MACH
20	Mining	MINE
21	Packaging	PKG
22	Pharmaceutical Products and Cosmetics	PHARM
23	Printing and Publishing	PRINT
24	Professional Services	PROF
25	Property Development	PROP
26	Pulp and Paper	PULP
27	Textiles, Clothing and Footwear (Fashion)	TEXT
28	Transportation	TRANS
29	Vehicles and Parts (Automotive)	VEHIC
30	Warehouse and Silo	SILO

Table 14
Alternative regression technique (Sector Dummies) of Political connections and stock return

This table reports the cross-sectional regressions purposed to explain the impact of political connections on the value of a firm. $Stock\ Return_i = a + b_1(Political\ connections)_i + b_2(Size)_i + b_3(Book\ to\ Market\ Ratio)_i + b_4(Debt\ Ratio)_i + b_5(Sector\ Dummies)_i + \varepsilon_i$. The controlled variables are followed as Johnson and Mitton (2001) model. Stock return periods are as noted in each row since 1997 to 2004. Political connections are connected to cabinet, otherwise, connected to politician. Firm size is computed as the natural log of total assets. Book-to-Market Ratio is the book value of equity divided by market value of equity. Debt ratio is total liability divided by total assets. Sector dummies are categorized by code of the Stock Exchange of Thailand included 8 sectors, except Rehabco Sector. Each sector is composed of industries being similar characteristic as follows: Argo & Food Industry Sector (Agribusiness, Foods and Beverages), Consumer Product Sector (Fashion (Textiles, Clothing and Footwear), Household Goods, Pharmaceutical Products and Cosmetics), Financials (Banking, Finance and Securities, Insurance) Industrials Sector (Automotive (Vehicles and Parts), Machinery and Equipment, Pulp and Paper, Chemicals and Plastics, Packaging), Property & Construction Sector (Building and Furnishing Materials, Property Development), Resources Sector (Energy, Mining), Services Sector (Commerce, Entertainment and Recreation, Health Care Services, Hotels and Travel Services, Printing and Publishing, Professional Services, Transportation) and technology Sector (Communication, Electrical Products and Computer, Electronic Components). Other Sector for other industries is not included in control variables. All coefficients of sector dummies are also estimated but not reported. These numbers are tested significantly different from zero computed from t-tests. *, **, ***: Significant different from zero at the 10%, 5% or 1% level, respectively.

Year	Connected to cabinet					Connected to politician				
	Political connections	Firm Size	Book/Market Ratio	Debt Ratio	R ²	Political connections	Firm Size	Book/Market Ratio	Debt Ratio	R ²
1997	0.1128 (0.5284)	-0.0590 (-1.0365)	-0.0931*** (-7.5835)	-1.1761*** (-3.5450)	57.62%	-0.2366* (-1.7228)	-0.0594 (-1.0512)	-0.0943*** (-7.8933)	-1.2017*** (-3.6022)	58.18%
1998	-0.2309 (-0.7831)	0.0886* (1.9098)	-0.0890*** (-2.4746)	-0.2023 (-0.7865)	12.45%	-0.0339 (-0.2257)	0.0868* (1.9082)	-0.0883*** (-2.4492)	-0.2220 (-0.8374)	11.93%
1999	0.0588 (0.4222)	-0.0577* (-1.6469)	-0.0384 (-1.0219)	0.2250 (1.2210)	11.90%	-0.0118 (-0.1273)	-0.0576 (-1.6315)	-0.0403 (-1.0824)	0.2242 (1.2099)	11.84%
2000	-0.0571 (-0.3856)	-0.0802*** (-2.7033)	-0.0406 (-1.2857)	-0.1864 (-1.2575)	28.52%	-0.0784 (-1.0570)	-0.0806*** (-2.7108)	-0.0406 (-1.3061)	-0.1836 (-1.2331)	28.87%
2001	-0.0718 (-0.2547)	-0.0814*** (-2.3602)	0.0127 (0.5552)	0.0987 (0.6081)	20.14%	-0.0457 (-0.5176)	-0.0838*** (-2.3307)	0.0139 (0.6019)	0.0984 (0.6177)	20.20%
2002	0.1024 (0.8821)	0.0008 (0.0314)	-0.0246 (-1.2416)	-0.0137 (-0.0789)	9.30%	-0.0562 (-0.6658)	0.0029 (0.1172)	-0.0214 (-1.0537)	-0.0144 (-0.0837)	6.73%
2003	0.3958** (2.0948)	0.0519 (0.9815)	0.0161 (0.3633)	0.5905** (2.1024)	8.54%	0.1333 (1.0004)	0.055 (1.0669)	0.0023 (0.0499)	0.6091** (2.1327)	7.71%
2004	-0.2387 (-1.2902)	0.1309*** (3.3971)	-0.0228 (-0.2631)	-0.2982 (-1.0897)	14.69%	-0.0852 (-0.6619)	0.1284*** (3.2862)	-0.0177 (-0.2015)	-0.2999 (-1.0883)	14.03%

Table 15

Alternative regression technique (Sector Dummies) of Performance of connected firms

This table reports cross-sectional regressions intended to explain performance of connected firms which are return on asset (ROA), return on equity (ROE) and Tobin's q ratio. The performance of connected firms is confirmed by Faccio (2002). Political connections are connected to cabinet, or, connected to politician. $Performance_i = a + b_1(Political\ connections)_i + b_2(Size)_i + b_3(Industry\ Scales)_i + \varepsilon_i$ "ROA" is defined as net income divided by the total asset. "ROE" is the net income divided by the total equity. "TOBIN_Q" is the book value of debt plus market value of equity divided by the book value of total asset. The control variables are size and sector. Sector dummies are categorized by code of the Stock Exchange of Thailand included 8 sectors, except Rehabco Sector. Each sector is composed of industries being similar characteristic as follows: Argo & Food Industry Sector (Agribusiness, Foods and Beverages), Consumer Product Sector (Fashion (Textiles, Clothing and Footwear), Household Goods, Pharmaceutical Products and Cosmetics), Financials (Banking, Finance and Securities, Insurance) Industrials Sector (Automotive (Vehicles and Parts), Machinery and Equipment, Pulp and Paper, Chemicals and Plastics, Packaging), Property & Construction Sector (Building and Furnishing Materials, Property Development), Resources Sector (Energy, Mining), Services Sector (Commerce, Entertainment and Recreation, Health Care Services, Hotels and Travel Services, Printing and Publishing, Professional Services, Transportation) and technology Sector (Communication, Electrical Products and Computer, Electronic Components). Other Sector for other industries is not included in control variables. All coefficients of size and sector dummies are also estimated but not reported. These numbers are tested significantly different from zero computed from t-tests. *, **, ***: Significant different from zero at the 10%, 5% or 1% level, respectively.

Year	Connected to cabinet			Connected to politician		
	ROA	ROE	TOBIN_Q	ROA	ROE	TOBIN_Q
1997	0.0072 (0.3757)	0.0444 (0.4154)	-0.0300 (-0.4752)	-0.0062 (-0.4527)	-0.0089 (-0.1312)	-0.0830* (-1.6759)
1998	-0.0431 (-1.4238)	-0.1309 (-1.1101)	0.0238 (0.2313)	0.0145 (0.7817)	0.0355 (0.4672)	-0.0951* (-1.6819)
1999	-0.0221 (-0.8041)	0.018 (0.1571)	0.0538 (0.2461)	-0.0191 (-1.0136)	-0.0509 (-0.6427)	-0.0225 (-0.2694)
2000	0.0095 (0.2726)	0.0966 (0.2939)	0.0418 (0.3735)	-0.0085 (-0.4935)	0.4692 (0.7784)	-0.0211 (-0.3427)
2001	-0.0011 (-0.0483)	0.0721 (0.7168)	0.0901 (0.8305)	0.0082 (0.6568)	0.0364 (0.2633)	0.0495 (1.0312)
2002	-0.0004 (-0.0207)	-0.0527 (-0.8971)	0.1649 (0.7150)	0.0123 (0.8624)	-0.0442 (-0.8496)	-0.0169 (-0.2181)
2003	-0.0487 (-1.6202)	-0.2145** (-2.2978)	0.8402 (1.4863)	0.0159 (1.2246)	-0.0084 (-0.1596)	0.2549 (1.5475)
2004	-0.028 (-1.1014)	-0.1358* (-1.8535)	0.3563* (1.9228)	-0.0211 (-1.2765)	-0.0998* (-1.7988)	0.1973** (2.0814)

Author's Biography

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