

THE EXOGENOUS SHOCK OF GENERAL ELECTIONS: POLITICALLY CONNECTED FIRMS AND STOCK PRICE CRASH RISK

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ABSTRACT

Malaysia experienced unusual political turmoil during the general elections in 2008 (GE 2008) and 2013 (GE 2013). This study examines how such exogenous political shocks affect the stock price crash risk of politically connected firms (PCFs) compared to non-PCFs in Malaysia. The data for this study covers from the year 2002 to 2017. A balanced panel of 529 firms from 2002-2017 is used for analysis. This study finds that PCFs display a significantly lower stock price crash risk after GE 2008 and GE 2013 but not before GE 2008. However, the results are only applicable to the PCFs through the politically connected board of directors and businessmen. Further analysis reveals that increasing foreign (government) strategic free float shareholdings result in lower stock price crash risk of PCFs through the politically connected board of directors (government direct shareholdings). Our results provide several perspectives on the connection between stock price crash risk and political stability.

Keywords: Election; Exogenous shock; Malaysia; Political connection; Stock price crash risk.

Received: 15 January 2021

Accepted: 21 September 2022

<https://doi.org/10.33736/ijbs.5198.2022>

1. INTRODUCTION

Empirical investigations have shown that politically connected firms (PCFs) are plagued by agency problems (Hall & Deardorff, 2006). For example, they are linked to a lower earnings quality report (Chaney, Faccio, & Parsley, 2011), expropriating firm resources (Boubakri, Guedhami, Mishra, & Saffar, 2012; Guedhami, Pittman, & Saffar, 2014), and suppressing undesirable news during major political events (Piotroski, Wong, & Zhang, 2015). Despite the well-researched topic on the relationship between politics and corporations, little attention is placed on the studies regarding the stock price crash risk aspects of PCFs, especially in the scope of an emerging country.

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According to Piotroski et al. (2015), PCFs tend not to disclose negative news during political events. Subsequently, it is expected to have increasingly negative news released. In the context of PCFs, the momentary suppression of negative news will cause a distinct swing in stock price crash behavior thereafter if investors are incapable of unraveling the undisclosed negative news.

This study compares the stock price crash risk of PCFs with non-PCFs in Malaysia that mingled around two general election events in the year 2008 and 2013 (hereafter GE 2008 and GE 2013) in the country. With this setting, this study conducts a quasi-natural experiment by exploiting the two election events as the exogenous shocks in affecting the PCFs' stock price crash risk relative to non-PCFs before and after the events. GE 2008 and GE 2013 are highlighted because both events mark an extraordinary political turmoil in Malaysia. In GE 2008, Barisan Nasional (BN) who is the ruling party, did not manage to hold on to its majority representation in the parliament, and in the GE 2013, BN further lost its popularity vote - a shock to its 60 years of domination in the parliament. Throughout the two elections, BN's political power has been significantly reduced by the increased influence of the opposition party although it is still the ruling party of the government. However, the increased power of the opposition after the GEs has threatened BN's domination because the opposition exerts more stringent monitoring on the BN government. The unprecedented shocks in the two GEs create a value for research on the consequence of PCFs on their stock price crash risk.

In this study, we analyze three sample periods, i.e. the period before GE 2008, between GE 2008 and GE 2013, and after GE 2013. This study uses an expanded dataset covering the year 2002 to 2017. Following Wong and Hooy (2018), this study identifies PCFs into four categories, which are (1) firms with government shareholding, (2) firms that have a board of directors with political background, (3) firms with the networking of businessperson with politicians, and lastly (4) firms with family members of the nation's leader. The result is obtained by using panel data regressions. We further use two alternative analytical approaches as robustness tests, i.e. the generalized method of moments (GMM) and the difference-in-differences (DID) estimation.

Our result shows that the stock price crash risk of PCFs has decreased after GE 2008 and GE 2013, but not before GE 2008. The finding adds to the existing literature as it provides evidence that the crash risk of PCFs has decreased after the major political changes in Malaysia, as opposed to the findings of Piotroski et al. (2015) who found the opposite evidence based on the different sample. We explain our result according to the agency theory perspective, in which the loss of domination of the BN government has brought a significant decrease to PCFs' stock price crash risk due to the increased monitoring of the opposition parties in post-GE 2008. The results imply that the increased opposition party's monitoring may prevent PCFs' bad news suppression, hence reducing the price anomalies in the market. In other words, the stock prices of the PCFs have become more stable after the GEs.

However, further investigation shows that the decrease in stock price crash risk after GE 2008 and GE 2013 does not apply to all types of political connections. We find that the stock price crash risk of PCFs through government shareholding and the family of the nation's leader does not change significantly across the GEs, but only the stock price crash risk of the PCFs through the politically connected board of directors and the businessmen do. This implies that the agency problems in PCFs through the politically connected board of directors and the businessmen are reduced after the two GEs, which leads to a decrease in the PCFs' stock price crash risk after better monitoring

is in place. In the addition, we find that increasing foreign strategic shareholdings from free float shares in the market negatively moderates the stock price crash risk of the PCFs through the politically connected board of directors. Also, increasing government strategic shareholdings have a similar effect on the government-direct owned PCFs.

This study contributes in three ways. First, although the issues surrounding general elections have appealed to numerous scholars (e.g. O'Shannassy, 2009; Fee & Appudural, 2011), there are limited studies in the finance literature that focus on the detailed association between politically connected firms and stock price crash risk. Second, although literature often finds relationship-based economies like Malaysia (Bliss & Gul, 2012a, 2012b) to be of interest, so far investigations into this issue have predominantly been made using the data from China, except Tee (2017) whose study is specifically based on Malaysia's sample firms. This study differs from Leuz and Oberholzer-Gee (2006) in which we used the unique setting of Malaysia's political turmoil period during GE 2008 and GE 2013, where the situation reflects no change in the ruling government but an increase in power of the opposition party that exerts greater monitoring. Third, we identify the types of political connections among Malaysian firms that have the most likelihood of leading to the stock price crash risk.

This paper is arranged in the following way. Hypotheses development is provided in Section 2. The data and methodology section is discussed in Section 3. Results and discussion are laid out in Section 4. The conclusion is in Section 5.

2. HYPOTHESES DEVELOPMENT

Malaysia is one of the emerging countries that is plagued by the existence of politically linked firms. There are a few incidents that exacerbate the political involvement in Malaysia's corporate sector. Among them are the implementation of the New Economic Policy (NEP) in 1971 and the privatization of government entities in the 1990s. Most literature discussing the relationship between political connection and stock price crash risk usually viewed them from the agency theory, because the agency problem and poor governance in PCFs lead to the issues related to opaque financial reporting and low standard of financial disclosure (Leuz & Oberholzer-Gee, 2006). Luo, Gong, Lin, and Fang (2016) showed that firms with government officials have lower stock price crash risk in the short run. However, in the longer run, the stock price crash risk of PCFs will be higher due to lower transparency and information quality compared to non-PCFs (Kim & Zhang, 2016; Tee, 2017).

Similarly, Piotroski et al. (2015) suggest that politicians typically help PCFs to suppress undesirable information, especially during important political events. Piotroski et al. (2015) further indicated that the exogenous shock such as a major political event may significantly affect the behavior of politically connected firms. However, limited empirical evidence in the literature addresses the impact of the exogenous shock on the relationship between PCFs and stock price crash risk. We postulate that PCFs in Malaysia may be exposed to different extents of stock price crash risk before and after GE 2008 and GE 2013. This is because the increased political power of the opposition party in Malaysia after GE 2008 and GE 2013 exerts closer monitoring over the activities of PCFs and hence hampering the firms from utilizing the connection for their benefit. Hence, information transparency should increase, and the information gap among all shareholders

should be reduced. As such, we hypothesize that PCFs should show lower stock price crash risk after GE 2008 and 2013.

Hypothesis 1: Politically connected firms have lower stock price crash risk after GE 2008 and GE 2013.

Political connections with firms can be established through various channels. One of the plausible channels is through government shareholdings in the firms, which are known as government-linked companies (GLCs). There are many roles that GLCs play, including creating wealth, involving research and development, and helping the government in matters such as diminishing poverty and rectifying inequality in economic distribution (Menon, 2018). Studies like Bushman, Piotroski, and Smith (2004); Boubaker, Mansali, and Rjiba (2014); and Lee and Wang (2017) find that GLCs are positively associated with stock price crash risk. Their studies support the view that government intervention is disadvantageous because of increasing rent-seeking activities that can harm firm value.

However, according to Gomez et al. (2017), currently, GLCs and government-linked investment companies (GLICs) in Malaysia are mostly run by individuals who have had many years of professional practice in the private sector before being recruited by GLCs or GLICs. Additionally, the government would also want to show the global investors that GLCs in Malaysia that carry the name of the country is run by professionals. Therefore, we postulate that PCFs through government shareholdings in Malaysia should not have any influence on its stock price crash risk in pre- and post-GE 2008 and GE 2013 as their businesses are conducted more professionally and with better corporate governance these days.

Hypothesis 2: Firms that are politically connected through government shareholdings do not have a significant difference in stock price crash risk before and after GE 2008 and GE 2013.

The political connection can also be established through the appointment of directors who possess political backgrounds (Goldman, Rochol, & So, 2009; Hillman, 2005). Lee and Wang (2017) show that these directors do not wield much power in suppressing undesirable information about the firms. Low information containment among these directors may be partly due to the great pressure created by the market for high-quality information, particularly for privately held firms. With that, we hypothesize that the PCFs through the board of directors have reduced stock price crash risk after GE 2008 and GE 2013 due to the increased monitoring role exerted by the opposition party because the great monitoring should reduce the firms' agency problems and subsequently the stock price crash risk.

Hypothesis 3: Firms that are politically connected through the board of directors have lower stock price crash risk after GE 2008 and GE 2013.

In addition, PCFs can also be established through businesspersons, who often leverage their relationship with politicians for their business interests. Most of the past literature finds this type of connection to be beneficial to firm performance. However, when it comes to how it affects stock price crash risk, there is limited research is conducted. This type of relationship can be an informal relationship such as the friendship between the business owners and politicians. In Malaysia, these

business owners usually have significant stock ownership and control over their respective firms. The informal relationship with a leading politician could provide additional power to the business owner to decide on the business decision. Agency problems arise when these business owners only emphasize their welfares, which may not benefit other investors and the other stakeholders (Shleifer & Vishny, 1994). This may lead to agency problems due to the information asymmetry between owners and stakeholders. Following GE 2008 and GE 2013, we postulate the reduction in power of the ruling government will decrease the power of these business owners over the other stakeholders. This will reduce the information asymmetry and subsequently its stock price crash risk.

Hypothesis 4: Firms that are politically connected through businesspersons have lower stock price crash risk after GE 2008 and GE 2013.

One of the earliest literature on political connection was conducted by Fisman (2001), who examined how firms linked to the former President of Indonesia, Suharto's son and are less transparent and therefore, have higher stock price crash risk. Historical evidence during the financial crisis in 1997 shows that some PCFs like Konsortium Perkapalan are on the brink of bankruptcy and have to be bailed out. After GE 2008 and GE 2013, we postulate that the stock price crash risk of this type of connection with PCFs will be lower due to the decline of the power of the ruling government and the government's leader, which lowers the power for them to hoard information.

Hypothesis 5: Firms that are politically connected through the national leader's family members have lower stock price crash risk after GE 2008 and GE 2013.

3. METHODOLOGY

3.1. Data

The sample frame for this study is from 2002 to 2017. Political stability in Malaysia starts to fluctuate after the GE 2008 and is followed by the second wave in 2013. Hence, the sample period covers the data during pre- and post-GE 2008 and GE 2013. A total of 529 firms are selected in the analysis (excluding banks and financial firms), and the selection is based on the availability of political connection data. Our sample represents about 66 percent of the total firms listed on the Kuala Lumpur Stock Exchange. In our sample, we observe that there is 40 percent on average are identified to have political connections.

Financial data of individual firms are taken from Datastream. We manually identify the PCFs from four perspectives: (1) government shareholding; (2) political connection of the board of directors; (3) political connection of the businessmen; (4) direct family relationship with the nation's leader. This is similarly adopted in Wong and Hooy (2018).

3.2. Categorizing Various Types of Political Connections

In the categorization of political connection, we consider a firm as *GOVSHR* if the government-linked investment companies (GLIC) have a controlling stake in a firm, which makes it a *GLC*.

Firms that have directors with a political background are categorized as *BOARD*. We obtained this information from the directors' profiles documented in the firms' annual reports. Firms with businesspersons establishing networks with politicians are categorized as *BUSINESS*. Firms with family members of the nation's leader are categorized as *FAMILY*.

3.3. Measures of Stock Price Crash Risk

According to Hutton, Marcus, and Tehranian (2009), stock price crash risk is described as a significant negative market adjustment on stock returns. This study mainly employs the most common measure of firm-specific stock price crash risk in literature by using the expanded market model, as shown in equation 1:

$$r_{j,s} = \alpha_j + \beta_{1,j}r_{m,s-2} + \beta_{2,j}r_{m,s-1} + \beta_{3,j}r_{m,s} + \beta_{4,j}r_{m,s+1} + \beta_{5,j}r_{m,s+2} + \varepsilon_{j,s} \quad (1)$$

where $r_{j,s}$ is the return on stock j in week s , and $r_{m,s}$ is the return of Kuala Lumpur Composite Index (KLCI) in weeks. Following Dimson (1979), the lead and lag terms of market index returns are taken into consideration in nonsynchronous trading. The firm-specific weekly return for firm j in week s ($W_{j,s}$) is derived from the addition of the natural logarithm of one and the residual ($\varepsilon_{j,s}$). We use $W_{j,s}$ because it shows the price adjustments of a specific stock and not the broad market returns.

Next, $W_{j,s}$ is incorporated in equation 2. The equation measures the negative conditional skewness of $W_{j,s}$ for one year. *NCSKEW*, which is the proxy for stock price crash risk, is calculated by taking the negative of the third moment of $W_{j,s}$ for each year, and it is normalized by the standard deviation of the cube of $W_{j,s}$.

$$NCSKEW_{j,s} = -n[n(n-1)]^{3/2} \sum W_{j,s}^3 / [(n-1)(n-2)(\sum W_{j,s}^2)^{3/2}] \quad (2)$$

where $W_{j,s}$ is firm-specific weekly return, and n is the number of weekly returns during year t . The third moment is multiplied with a negative of one, where higher *NCSKEW* means higher crash risk.

Alternatively, this study generates another measure of crash risk by counting the number of crash weeks in a calendar year, and this measure is adopted by Hutton et al. (2009). The binary variable *DCRASH*, is given the value of one if it is a crash week, and zero otherwise. The crash weeks in a particular year are identified if its weekly return is 3.09σ lower than the average weekly return of a firm.

3.4. The Regression Model

The main objective of this study is denoted by equations 3a and 3b. The dependent variable is the stock price crash risk that is represented by $NCSKEW_{i,t+1}$ and $DCRASH_{i,t+1}$ respectively. The independent variables include firm size ($SIZE_{i,t}$), leverage ($LEV_{i,t}$), market-to-book ($MTBV_{i,t}$), return of assets ($ROA_{i,t}$), stock returns ($RET_{i,t}$) and stock volatility ($SIGMA_{i,t}$), and the trading volume ($DTURN_{i,t}$). Year dummies are incorporated to control for the year effect. $POLCON_{i,t}$ represents political connection. The description of the variables is reported in Table 1.

$$NCSKEW_{i,t+1} = \beta_0 + \beta_1 SIZE_{i,t} + \beta_2 LEV_{i,t} + \beta_3 MTBV_{i,t} + \beta_4 ROA_{i,t} + \beta_5 RET_{i,t} + \beta_6 SIGMA_{i,t} + \beta_7 DTURN_{i,t} + \beta_8 NCSKEW_{i,t} + \beta_9 POLCON_{i,t} + YEAR_DUMMIES + \varepsilon_{i,t} \quad (3a)$$

$$DCRASH_{i,t+1} = \beta_0 + \beta_1 SIZE_{i,t} + \beta_2 LEV_{i,t} + \beta_3 MTBV_{i,t} + \beta_4 ROA_{i,t} + \beta_5 RET_{i,t} + \beta_6 SIGMA_{i,t} + \beta_7 DTURN_{i,t} + \beta_8 NCSKEW_{i,t} + \beta_9 POLCON_{i,t} + YEAR_DUMMIES + \varepsilon_{i,t} \quad (3b)$$

Table 1: Descriptive variables

Variable name	Variable description
Dependent variable:	
<i>NCSKEW</i>	The negative conditional skewness of $W_{j,s}$ over the fiscal year raised to the third power.
<i>DCRASH</i>	A dummy variable identifying the weeks of stock price crash.
Control variables:	
<i>SIZE</i>	Firm size, measured as natural logarithm of the book value of total assets at the end of the fiscal year.
<i>LEVERAGE</i>	Financial leverage, measured as the ratio of total debt to total assets.
<i>MTBV</i>	Market to book value of equity.
<i>ROA</i>	A proxy of profitability, measured as after-tax net income deducting the interest expense on debt-interest capitalized and divided by the mean total asset of previous and current year.
<i>DTURN</i>	Change in trading volume, measured using the mean of monthly share turnover in year t minus the same in $t-1$.
<i>RETURN</i>	The average of firm-specific weekly returns in a year.
<i>SIGMA</i>	The standard deviation of firm-specific weekly returns in a year.
<i>DCRISIS</i>	A dummy variable for year 2008 due to Asian Financial Crisis.
Political connection variables:	
<i>POLCON</i>	A dummy variable for all firms that are politically connected.
<i>GOVSHR</i>	A dummy variable for firms with government shareholding.
<i>BOARD</i>	A dummy variable for firms with directors that has political background.
<i>BUSINESS</i>	A dummy variable for firms where its owner establishes networks with politicians.
<i>FAMILY</i>	A dummy variable for firms with family members of the nation's leader.

4. RESULTS AND DISCUSSION

4.1. Descriptive Statistics

Table 2 shows the number of PCFs by sector from 2002-2017. We can observe from the table that the number of PCFs in certain sectors is increasing over the years since the pre-2008 general election. For example, the number of PCFs in the consumer products sector, industrial productions sector, plantation sector, properties sector, and trade/services sector shows an increasing pattern over the years. Instead, the number of PCFs in the other sectors including the construction sector and technology sector shows a less plausible change in pre-2008. However, in the post-2008 election, the number of PCFs in the industrial production sector shows a decreasing pattern, and the number of PCFs in the other sectors has stably grown over the years. Among the sectors in

KLSE, the majority of PCFs are found in the consumer products sector, industrial production sector, properties sector and trade/services sector.

Table 3 displays the changes in the number of PCFs by types across the industries in pre- and post-political turmoil. From the table, we observe that the average number of PCFs in many industries through the political connection of the board of directors has plausibly changed over the political turmoil. However, only a little change in the number of PCFs through family members is observed throughout the political turmoil.

Table 4 presents the t-test of stock price crash risk between PCFs and non-PCFs in various types of political connections. In terms of *NCSKEW*, there is a significant difference between PCFs and non-PCFs by 0.023, which suggests that the PCFs have a greater stock price crash risk relative to non-PCFs. A similar pattern is found in *BOARD* and *BUSINESS* and the differences are statistically significant. The opposite pattern is found in *GOVSHR* where *GOVSHR* = 1 is smaller than *GOVSHR* = 0, and the difference is statistically significant. Except for *FAMILY* which does not show a significant difference in the t-test. It is noted that PCFs through government shareholdings display the lowest stock price crash risk if compared to the others, and it is even lower than non-PCFs. In terms of *DCRASH*, only *GOVSHR* and *FAMILY* show a significant difference in the t-test, and *GOVSHR* = 1 consistently displays a lower value of *DCRASH* compared to *GOVSHR* = 0.

Table 2: Number of politically connected firms by sectors, 2002-2017

Years	Pre-08 Election						08' Political Regime					13' Political Regime				
	'02	'03	'04	'05	'06	'07	'08	'09	'10	'11	'12	'13	'14	'15	'16	'17
Construction	19	19	18	20	19	20	20	19	20	21	23	25	26	26	26	26
Con. Prod	36	40	46	51	52	53	53	54	57	54	57	58	56	58	56	53
Finance	19	19	18	17	17	20	22	22	22	21	22	21	23	20	19	23
Hotels	3	3	3	3	3	3	3	3	3	3	3	3	2	3	3	3
Ind. Prod	65	68	83	94	97	102	101	100	102	97	99	99	96	92	98	96
IPC	3	3	3	3	3	4	4	3	3	2	4	4	4	4	4	0
Plantation	17	17	18	16	18	19	21	24	23	20	22	21	24	26	27	26
Properties	39	42	43	46	46	46	46	46	47	47	52	51	54	55	55	56
REITs	0	0	0	0	2	6	10	10	10	11	13	14	14	14	14	14
Technology	9	9	9	11	11	11	11	10	13	12	12	12	12	13	11	18
Trad/Serv	59	62	70	74	76	78	83	86	86	90	96	96	103	108	110	112
Total	269	282	311	335	344	362	374	377	385	377	401	402	414	418	423	427

Notes: Con. Products represents Consumer Products; Industrial Prod represents Industrial Productions; IPC represents Infrastructure; SPAC represents Special Purpose Acquisition Company; Trad/Serv represents Trading/Services. The industrial classification is according to Bursa Malaysia in 2017. Firms in the mining sector is excluded because no data of political connection are available.

Table 3: Average number of PCFs by types across industries in pre- and post-political turmoil

Types of Political Connections	Year	Industrial Classification According to Bursa Malaysia ^a												
		Cons	CP	Fin	Htl	IP	IPC	Mining	Plant	Prop	REITs	SPAC	Tech	Trad/Serv
<i>GOVSHR</i>	Pre-08	2	3	6	0	4	1	0	1	0	0	0	1	13
	2008	2	3	6	0	4	1	0	1	0	0	0	1	13
	2013	2	3	6	0	4	1	0	1	0	0	0	1	12
<i>BOARD</i>	Pre-08	9	26	1	3	35	2	0	14	26	0	0	5	30
	2008	10	26	1	3	31	2	0	13	26	0	0	5	34
	2013	10	20	1	3	25	2	0	11	24	0	0	5	30

Table 3: continued

<i>BUSINESS</i>	Pre-08	0	0	3	0	3	1	0	0	6	0	0	0	6
	2008	0	0	3	0	3	1	0	0	6	0	0	0	6
	2013	0	0	3	0	3	1	0	0	6	0	0	0	6
<i>FAMILY</i>	Pre-08	0	2	4	0	2	0	0	0	2	1	0	1	2
	2008	0	2	2	0	1	0	0	0	2	1	0	0	2
	2013	0	2	2	0	1	0	0	0	2	0	0	0	2

Notes: The numbers are round-up based on the decimals. ^a The recent industrial classification according to Bursa Malaysia is revised in 2018, which may not be similar with the classification in the table. Cons represents construction. CP represents consumer products. Fin represents finance. Htl represents hotel. IP represents industrial production. IPC represents infrastructure. Plant represents plantation. SPAC represents special purpose acquisition company. Tech represents technology. Trad/Serv represents trading/services.

Table 4: T-test on stock price crash risk between politically connected firms and non-politically connected firms

	<i>NCSKEW</i>			<i>DCRASH</i>		
	Mean	Difference	p-value	Mean	Difference	p-value
<i>POLCON</i> =0	-0.225	0.023**	0.0335	0.622	-0.012	0.2273
<i>POLCON</i> =1	-0.248			0.634		
<i>GOVSHR</i> =0	-0.241	-0.046**	0.0269	0.622	-0.081***	0.0001
<i>GOVSHR</i> =1	-0.195			0.706		
<i>BOARD</i> =0	-0.227	0.032**	0.0050	0.634	0.016	0.1997
<i>BOARD</i> =1	-0.258			0.618		
<i>BUSINESS</i> =0	-0.235	0.048*	0.067	0.628	0.017	0.4279
<i>BUSINESS</i> =1	-0.284			0.611		
<i>FAMILY</i> =0	-0.238	-0.016	0.6316	0.625	-0.089**	0.0112
<i>FAMILY</i> =1	-0.222			0.714		

Notes: *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively

The descriptive statistics and Pearson's correlation for the variables of this study are presented in Table 5. In Panel A of the table, the average of $NCSKEW_t$ is -0.24 (which is greater than the stock price crash risk of the other market sample¹), and it suggests that the stock prices of Malaysian firms are prone to crash compared to other markets. The mean of $DCRASH_t$ is 0.65, suggesting that 65 percent of firms in the sample have gone through a minimum of one crash event. The median of $POLCON_{t-1}$ is 0.00, and 1.00 at 75 percentiles, which suggests that the data is skewed to the right. This is similarly found in the four decomposed types of PCFs, especially $GOVSHR_{t-1}$, $BUSINESS_{t-1}$ and $FAMILY_{t-1}$ which are more skewed to the right compared to $BOARD_{t-1}$. The mean and median of $SIZE_{t-1}$ are 13.26 and 13.07, with a standard deviation of 1.68. The mean and median of LEV_{t-1} are 0.20 and 0.18, which indicates that the average sample has a lower debt ratio. $MTBV_{t-1}$ and ROA_{t-1} have positive mean and median values, indicating that the firms have a good prospect with high profitability.

Panel B shows the correlations of the variables used in this study. We observe that $NCSKEW_t$ and $DCRASH_t$ are highly correlated at 0.6055 at a 1 percent level of significance. $POLCON_{t-1}$ shows a negative correlation with both stock price crash risk proxies ($NCSKEW_t$ and $DCRASH_t$), which suggests that PCFs should have lower stock price crash risk. $GOVSHR_{t-1}$ has significant positive correlations with both stock price crash risk measures ($NCSKEW_t$ and $DCRASH_t$), and the opposite

¹ $NCSKEW$, in Kim et al. (2011) that used U.S sample is -0.079; in Chen et al. (2017) that used the sample from NYSE, AMEX, or NASDAQ is -0.0971; in Li et al. (2017) that used Chinese sample is -0.2053.

is observed in $BOARD_{t-1}$ and $BUSINESS_{t-1}$ are negatively correlated with stock price crash risk, and the opposite is observed for the correlation between $GOVSHR_{t-1}$, $BUSINESS_{t-1}$ and $FAMILY_{t-1}$ do not show a significant correlation with the stock price crash risk measures. The results may suggest that the types of political connections matter to the PCFs' stock price crash risk.

5. RESULTS AND DISCUSSION

Table 6 highlights the relationship between PCFs and stock price crash risk. Column 1 presents the results for the entire sample covering 2002-2017. Column 2 presents the results based on the subsample covering 2008-2017 only, which is the period after GE 2008. Column 3 and 4 further divides the total sample into 2008-2012 (GE 2008 regime) and 2013-2017 (GE 2013 regime).

In column 1, the effect of control variables like LEV_{t-1} , $MTBV_{t-1}$, $SIGMA_{t-1}$, RET_{t-1} , and $DCRISIS_{t-1}$ on $NCSKEW_t$ and $DCRASH_t$ are within expectation and consistent with the previous studies. Only the negative sign of $SIGMA_{t-1}$ contradicts the results of the previous studies based on non-Asian sample (e.g. Kim, Li, & Li, 2014; Chen, Kim & Yao, 2017), yet, it is consistent with Luo et al. (2016) that use the sample from China. $POLCON_{t-1}$ shows a negative relationship with $NCSKEW_t$ and $DCRASH_t$ respectively, which suggests that PCFs in general definition exhibit lower stock price crash risk than non-PCFs. Such a finding is similarly shown in column 3 (after GE 2008) but not in column 2 (before GE 2008), which suggests that PCFs only exhibit a lower stock price crash risk in post-GE 2008. Alternatively, the results in column 4 (GE 2008 Regime) and 5 (GE 2013 Regime) are similar to the results in column 1.

When tested using GMM estimation (in Panel B), our main findings remain consistent. Furthermore, when tested using the difference-in-differences (DiD) approach, as shown in Panel C, there is no significant difference in the stock price crash risk between the treatment and control groups prior to GE 2008, but there is a significant difference in the stock price crash risk between the treatment and control groups in post GE 2008. The DiD is -0.0501 in $NCSKEW_t$ and -0.0399

Table 5: Descriptive statistics and correlations

Variable	Obs	Mean	Std Dev.	Min	Percentile							
					0.25	0.50						
Panel A												
<i>Stock price crash risk measures</i>												
$NCSKEW_t$	5901	-0.24	0.43	-0.83	-0.69	-0.22						
$DCRASH_t$	5901	0.65	0.48	0.00	0.00	1.00						
<i>Types of political connections</i>												
$POLCON_{t-1}$	5901	0.45	0.50	0.00	0.00	0.00						
$GOVSHR_{t-1}$	5901	0.07	0.25	0.00	0.00	0.00						
$BOARD_{t-1}$	5901	0.32	0.47	0.00	0.00	0.00						
$BUSINESS_{t-1}$	5901	0.04	0.20	0.00	0.00	0.00						
$FAMILY_{t-1}$	5901	0.02	0.15	0.00	0.00	0.00						
<i>Control variables</i>												
$SIZE_{t-1}$	5901	13.26	1.69	9.95	12.03	13.07						
LEV_{t-1}	5901	0.20	0.17	0.00	0.05	0.18						
$MTBV_{t-1}$	5901	1.42	2.50	0.01	0.58	0.90						
ROA_{t-1}	5901	5.32	7.74	-23.34	1.84	5.15						
$DTURN_{t-1}$	5901	-0.01	1.09	-2.65	-0.65	-0.05						
$SIGMA_{t-1}$	5901	0.05	0.04	0.01	0.03	0.05						
RET_{t-1}	5901	0.03	0.02	-0.02	0.00	0.00						
$DCRISIS_t$	5901	0.07	0.14	0.00	0.00	0.00						
$NCSKEW_{t-1}$	5901	-0.24	0.43	-0.83	-0.70	-0.22						
$DCRASH_{t-1}$	5901	0.63	0.48	0.00	0.00	1.00						
Panel B: Correlations												
	1	2	3	4	5	6	7	8	9	10	11	12
1. $NCSKEW_t$	1.000											
2. $DCRASH_t$	0.6055	1.000										

	(0.0000)											
3. $POLCON_{t-1}$	-0.0244	-0.0028	1.000									
	**	*										
	(0.0455)	(0.0560)										
4. $GOVSHR_{t-1}$	0.0209	0.0380	0.2943	1.000								
	*	***	***									
	(0.0864)	(0.0015)	(0.0000)									
5. $BOARD_{t-1}$	-0.0337	-0.0260	0.7580	-0.1800	1.000							
	***	**	***	***								
	(0.0058)	(0.0299)	(0.0000)	(0.0000)								
6. $BUSINESS_{t-1}$	-0.0195	-0.0113	0.2276	-0.0543	-0.1399	1.000						
	***	***	***	***	***							
	(0.1101)	(0.3463)	(0.0000)	(0.0000)	(0.0000)							
7. $FAMILY_{t-1}$	0.0150	0.0228	0.1743	-0.0416	-0.1017	-0.0322	1.000					
	***	***	***	***	***	***						
	(0.2206)	(0.1563)	(0.0000)	(0.0005)	(0.0000)	(0.0068)						

Table 5: continued

8. $SIZE_{t-1}$	0.0168	0.0932 ***	0.3005 ***	0.2949 ***	0.0480 ***	0.1757 ***	0.1241 ***	1.000				
	(0.1714)	(0.0000)	(0.0000)	(0.0000)	(0.0001)	(0.0000)	(0.0000)					
9. LEV_{t-1}	-0.0306 **	-0.0203 *	0.0511 ***	-0.0142	0.0125	0.0707 ***	0.0584 ***	0.1661 ***	1.000			
	(0.0129)	(0.0936)	(0.0000)	(0.2375)	(0.2986)	(0.0000)	(0.0000)	(0.0000)				
10. $MTBV_{t-1}$	0.0566 ***	0.0638 ***	0.0271 **	0.0162	-0.0331 ***	0.0105	0.1447 ***	0.0921 ***	0.0234 *	1.000		
	(0.0000)	(0.0000)	(0.0287)	(0.1902)	(0.0077)	(0.3951)	(0.0000)	(0.0000)	(0.0609)			
11. ROA_{t-1}	0.0280 **	0.0466 ***	-0.0031	-0.0167	0.0157	-0.0260 **	0.0029	0.1001 ***	-0.2059 ***	0.3204 ***	1.000	
	(0.0249)	(0.0002)	(0.8006)	(0.1792)	(0.2079)	(0.0366)	(0.8131)	(0.0000)	(0.0000)	(0.0000)		
12. $DTURN_{t-1}$	0.0111	0.0227 *	0.0335 ***	0.0194	0.0249 *	0.0043	-0.0058	0.0047	0.0119	0.0145	0.0170	1.000
	(0.3877)	(0.0757)	(0.0088)	(0.1306)	(0.0521)	(0.7385)	(0.6500)	(0.7146)	(0.3574)	(0.2600)	(0.1904)	
13. $SIGMA_{t-1}$	-0.0055	-0.0763 ***	-0.0849 ***	-0.0958 ***	-0.0285 **	-0.0006	-0.0276 **	-0.3521 ***	0.1612 ***	-0.1133 ***	-0.2674 ***	0.2145 ***
	(0.6538)	(0.0000)	(0.0000)	(0.0000)	(0.0201)	(0.9595)	(0.0246)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.00000)
14. RET_{t-1}	0.0065	-0.0063	-0.0090	-0.0094	-0.0006	-0.0046	-0.0057	-0.0483 ***	-0.0059	-0.0166	0.0548 ***	0.2019 ***
	(0.5964)	(0.6060)	(0.4626)	(0.4462)	(0.9627)	(0.7084)	(0.6407)	(0.0001)	(0.6333)	(0.1815)	(0.0000)	(0.0000)
15. $DCRISIS_t$	0.1181 ***	0.0495 ***	0.0231 *	0.0042	0.0145	0.0032	0.0202 *	-0.0300 **	0.0064	0.0157	0.0588 ***	0.2022 ***
	(0.0000)	(0.0000)	(0.0517)	(0.7220)	(0.2229)	(0.7911)	(0.0901)	(0.0125)	(0.5953)	(0.2064)	(0.0000)	(0.0000)

in $DCRASH_t$. The DiD results suggest that, relative to the change in stock price crash risk of the control group (i.e. non-PCFs), PCFs experience an incremental drop in the stock price crash risk after the GE 2008. Hence, the results support hypothesis 1 of this study.

Table 7 presents regression results on the relationship between each type of PCF and the stock price crash risk. The results indicate that $BOARD_{t-1}$ and $BUSINESS_{t-1}$ show a consistently significant negative relationship with $NCSKEW_{t-1}$ and $DCRASH_{t-1}$ in post-GE 2008. However, we do not find a significant relationship as shown by $GOVSHR_{t-1}$ and $FAMILY_{t-1}$ with the stock price crash risk measures. In the period between the year 2008-2012, $BUSINESS_{t-1}$ has a consistent significant negative relationship with both $NCSKEW_t$ and $DCRASH_t$. In another period between 2013-2017, $BOARD_{t-1}$ shows a significant negative relationship with $NCSKEW_t$ and $DCRASH_t$. Instead, the signs of all types of PCFs are less consistent relative to $NCSKEW_t$ and $DCRASH_t$ prior to GE 2008.

Regardless of the impact of exogenous shocks that are focused on in this study, our results as shown in column 2 (after GE 2008) of Table 7, are consistent with the findings of Sun, Mellahi, Wright, and Xu (2015), where managerial ties with the municipal government rather than the government ownership ties tend to affect firm value. Hence, hypothesis 2 of this study is supported. Overall, our results are consistent with the results of Chen, Hong, and Stein (2001)'s theoretical predictions of how stock prices should behave when negative information is temporarily suppressed. The news suppression is even likely happening in PCFs given that the “suppress and release” pattern serves as powerful and indirect evidence for explaining the sudden change in stock price. Indeed, this is another piece of evidence to support the agency theory that PCFs are afflicted by severe agency problems, though it has decreased since GE 2008 as shown in the PCFs’ stock price crash risk. Therefore, more effective monitoring by opposition throughout the GE 2008 and GE 2013 indicate a reduction in the likelihood of bad news suppression in PCFs, thereby leading to lower stock price crash risk.

Table 6: Regression results on the relationship between political connection and stock price crash risk

	(1)		(2)		(3)		(4)		(5)	
Panel A: Panel Regressions										
	Full Sample (2002-2017)		Before GE 2008 (2002-2007)		After GE 2008 (2008-2017)		GE 2008 Regime (2008-2012)		GE 2013 Regime (2013-2017)	
	<i>NCSKEW_t</i>	<i>DCRASH_t</i>	<i>NCSKEW_t</i>	<i>DCRASH_t</i>	<i>NCSKEW_t</i>	<i>DCRASH_t</i>	<i>NCSKEW_t</i>	<i>DCRASH_t</i>	<i>NCSKEW_t</i>	<i>DCRASH_t</i>
Political Connection:										
<i>POLCON_{t-1}</i>	-0.0388*** (0.0004)	-0.2057*** (0.0000)	-0.0273 (0.1261)	-0.0524 (0.5383)	-0.0410*** (0.0055)	-0.2578*** (0.0001)	-0.0423* (0.0782)	-0.3109*** (0.0004)	-0.0358* (0.0644)	-0.1963** (0.0167)
Control Variables										
<i>NCSKEW_{t-1}</i>	0.0433*** (0.0000)		0.0390** (0.0339)		0.0475*** (0.0001)		0.0267* (0.0583)		0.0554*** (0.0019)	
<i>DCRASH_{t-1}</i>		0.0278 (0.2943)		0.0993 (0.4311)		0.033 (0.3001)		0.1469 (0.2114)		-0.0642 (0.5201)
<i>SIZE_{t-1}</i>	0.0049 (0.1022)	0.0909*** (0.0000)	-0.0131* (0.0517)	0.0336 (0.2756)	0.0097** (0.0120)	0.1058*** (0.0000)	-0.0073 (0.1969)	0.0956*** (0.0049)	0.0226*** (0.0001)	0.1086*** (0.0019)
<i>LEV_{t-1}</i>	-0.0780* (0.0676)	-0.2691* (0.0670)	-0.0828** (0.0261)	-0.5291*** (0.0082)	-0.0821 (0.1167)	-0.1956 (0.1969)	-0.0541 (0.4042)	-0.3154* (0.0720)	-0.1212* (0.0730)	-0.0146 (0.9666)
<i>MTBV_{t-1}</i>	0.0085*** (0.0010)	0.0620*** (0.0003)	0.0071 (0.2432)	0.0328 (0.2635)	0.0085*** (0.0032)	0.0779*** (0.0002)	0.0092*** (0.0099)	0.0895** (0.0115)	0.0083** (0.0210)	0.0725** (0.0281)
<i>ROA_{t-1}</i>	-0.0006 (0.1243)	0.0014 (0.7156)	-0.0011 (0.3455)	0.0135** (0.0195)	-0.0006 (0.1928)	-0.0033 (0.4491)	-0.0004 (0.7784)	0.0001 (0.9877)	-0.0006 (0.7000)	-0.0074 (0.4286)
<i>DTURN_{t-1}</i>	0.0013 (0.7967)	0.0371*** (0.0061)	-0.0087* (0.0939)	0.0463 (0.2292)	0.0041 (0.5436)	0.0345 (0.1051)	0.0092 (0.4147)	0.0743* (0.0695)	0.0037 (0.7334)	-0.0133 (0.7782)
<i>SIGMA_{t-1}</i>	-0.4422 (0.1154)	-3.5016*** (0.0000)	-0.3891 (0.4025)	-1.6793 (0.2939)	-0.5025* (0.0929)	-3.7031*** (0.0001)	-0.6736** (0.0168)	-3.2578*** (0.0038)	-0.2592 (0.6078)	-4.7962** (0.0122)
<i>RETURN_{t-1}</i>	0.9290** (0.0412)	8.7265* (0.0717)	3.1103*** (0.0060)	14.2279*** (0.0050)	0.8882** (0.0262)	7.402 (0.1657)	0.9872** (0.0125)	6.2086 (0.4107)	-0.2490 (0.8855)	10.6873 (0.2250)
<i>DCRISIS_t</i>	0.1946*** (0.0000)	0.3979*** (0.0072)	--	--	0.1560*** (0.0000)	-4.9990*** (0.0000)	0.1365*** (0.0004)	0.5005*** (0.0000)	--	--
Constant	-0.2292*** (0.0001)	-0.3234 (0.2755)	-0.0144 (0.8900)	0.1524 (0.6880)	-0.2466*** (0.0000)	4.9230*** (0.0000)	-0.0113 (0.9053)	-0.5659 (0.2673)	-0.4318* (0.0523)	-0.7547** (0.0473)
Year Effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Clustered SE	Ind	Ind	Ind	Ind	Ind	Ind	Ind	Ind	Ind	Ind
Obs	5901	5901	1903	1903	3998	3998	1914	1914	2084	2084
R ² / Pseudo-R	0.0394	0.0410	0.0398	0.0389	0.0400	0.0343	0.0524	0.0589	0.0284	0.0341
Panel B: Robustness Test using GMM:										
	Before GE 2008 (2002-2007)				After GE 2008 (2008-2017)					
	<i>NCSKEW_t</i>		<i>DCRASH_t</i>		<i>NCSKEW_t</i>		<i>DCRASH_t</i>		<i>DCRASH_t</i>	
<i>POLCON_{t-1}</i>	-0.0736 (0.1195)		-0.0277 (0.5940)		-0.1229*** (0.0000)				-0.0770*** (0.0000)	

Table 6: continued

Control Variables	Yes	Yes	Yes	Yes
Year Effect	Yes	Yes	Yes	Yes
Obs	1903	1903	3998	3998
p-value of AR1	0.000	0.000	0.000	0.000
p-value of AR2	0.300	0.371	0.442	0.089
Panel C: DID approach:				
	Before GE 2008 (2002-2007)		After GE 2008 (2008-2017)	
$POLCON_{t-1}$	-0.0274	0.0140	-0.0501***	0.0399***
(treatment vs control)	(0.3350)	(0.6740)	(0.0065)	(0.0054)
Control Variables	Yes	Yes	Yes	Yes
Year Effect	Yes	Yes	Yes	Yes
Obs	1903	1903	3998	3998

Notes: In the DID approach, we use propensity-score matching in which a control group is selected using nearest-neighbor propensity score matching. The panel regressions in Panel A take clustered standard errors (SE) by industries (Ind). The numbers inside parentheses are p-value. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Table 7: Decomposing the Effect of Various Types of Political Connections to the Stock Price Crash Risk

	(1) Before GE 2008 (2002-2007)		(2) After GE 2008 (2008-2017)		(3) GE 2008 Regime (2008-2012)		(4) GE 2013 Regime (2013-2017)	
	$NCSKEW_t$	$DCRASH_t$	$NCSKEW_t$	$DCRASH_t$	$NCSKEW_t$	$DCRASH_t$	$NCSKEW_t$	$DCRASH_t$
$GOVSHR_{t-1}$	0.0289 (0.3933)	-0.0608 (0.7213)	0.0058 (0.8387)	0.0728 (0.6413)	0.0138 (0.7432)	-0.0366 (0.8651)	0.0071 (0.8609)	0.2149 (0.1064)
$BOARD_{t-1}$	-0.0329* (0.0985)	-0.0218 (0.8101)	-0.0467*** (0.0031)	-0.3026*** (0.0000)	-0.0474* (0.0641)	-0.3531*** (0.0000)	-0.0437** (0.0486)	-0.2474*** (0.0046)
$BUSINESS_{t-1}$	-0.0618 (0.4820)	-0.4330* (0.0916)	-0.0740** (0.0184)	-0.4140** (0.0131)	-0.1186*** (0.0000)	-0.5235*** (0.0033)	-0.0204 (0.7172)	-0.2732 (0.4680)
$FAMILY_{t-1}$	0.0316 (0.2436)	-0.0021 (0.9928)	0.0086 (0.8282)	0.2264 (0.3691)	0.0575 (0.2572)	0.3914 (0.2397)	-0.0354 (0.5112)	-0.0342 (0.8657)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Clustered SE	Ind	Ind	Ind	Ind	Ind	Ind	Ind	Ind
Obs	1903	1903	3998	3998	1914	1914	2084	2084
R ² / Pseudo-R	0.0420	0.0263	0.0413	0.0312	0.0562	0.0154	0.0291	0.0198

Notes: Control variables are not reported due to length concern. The numbers inside parentheses are p-value. Ind refers to Industries. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively

Table 8: The moderating effects of foreign and government strategic shareholdings

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	<i>NCSKEW_t</i>	<i>DCRASH_t</i>	<i>NCSKEW_t</i>	<i>DCRASH_t</i>	<i>NCSKEW_t</i>	<i>DCRASH_t</i>	<i>NCSKEW_t</i>	<i>DCRASH_t</i>
Panel A: The influence of foreign strategic holdings								
<i>GOVSHR_{t-1}</i>	0.0321 (0.1272)	0.1903 (0.1721)						
<i>ForeignHoldings_{t-1}</i>	0.0090 (0.5385)	0.0102 (0.3264)	0.0173* (0.0109)	0.0433 (0.1249)	0.0110 (0.6425)	0.0073 (0.5511)	0.0126 (0.3260)	0.0212 (0.4495)
<i>GOVSHR_{t-1} x ForeignHoldings_{t-1}</i>	-0.0109 (0.5520)	0.0320 (0.5221)						
<i>BOARD_{t-1}</i>			-0.0211 (0.3097)	-0.2245** (0.0156)				
<i>BOARD_{t-1} x ForeignHoldings_{t-1}</i>			-0.0255*** (0.0375)	-0.0770*** (0.0085)				
<i>BUSINESS_{t-1}</i>					-0.1129** (0.0317)	-0.4121*** (0.0106)		
<i>BUSINESS_{t-1} x ForeignHoldings_{t-1}</i>					0.0182 (0.2144)	0.1078 (0.4125)		
<i>FAMILY_{t-1}</i>							-0.0192 (0.2391)	0.2124 (0.5890)
<i>FAMILY_{t-1} x ForeignHoldings_{t-1}</i>							0.0303 (0.1582)	0.4120 (0.3061)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Clustered SE	Ind	Ind	Ind	Ind	Ind	Ind	Ind	Ind
Obs	2932	2935	2932	2935	2932	2935	2932	2935
Panel B: The influence of government strategic holdings								
<i>GOVSHR_{t-1}</i>	0.0520 (0.1220)	0.2973** (0.0230)						
<i>GovHoldings_{t-1}</i>	0.0312*** (0.0001)	0.0871 (0.2810)	0.0321*** (0.0000)	0.0511 (0.5754)	0.0218*** (0.0003)	0.0570 (0.4634)	0.0281*** (0.0004)	0.0526 (0.6682)
<i>GOVSHR_{t-1} x GovHoldings_{t-1}</i>	-0.0304*** (0.0007)	-0.0897* (0.0567)						
<i>BOARD_{t-1}</i>			-0.0502 (0.5121)	-0.2843*** (0.0000)				

Table 8: continued

<i>BOARD</i> _{<i>t-1</i>} x <i>GovHoldings</i> _{<i>t-1</i>}			-0.0101 (0.2232)	0.0487 (0.9120)				
<i>BUSINESS</i> _{<i>t-1</i>}					-0.0377 (0.3862)	-0.2903 (0.1373)		
<i>BUSINESS</i> _{<i>t-1</i>} x <i>GovHoldings</i> _{<i>t-1</i>}					0.0069 (0.4625)	-0.1143 (0.2126)		
<i>FAMILY</i> _{<i>t-1</i>}							-0.0351 (0.5242)	0.3162 (0.8764)
<i>FAMILY</i> _{<i>t-1</i>} x <i>ForeignHoldings</i> _{<i>t-1</i>}							0.0210 (0.2180)	0.0371 (0.6462)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Clustered SE by Ind	Ind	Ind	Ind	Ind	Ind	Ind	Ind	Ind
Obs	3998	3998	3998	3998	3998	3998	3998	3998

Notes: Control variables are not reported due to length concern. The sample of this analysis is the post 2008 GE (2008-2017). The numbers inside parentheses are p-value. SE refers to standard errors. Ind refers to industries. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

6. FURTHER ANALYSIS

6.1. *The Effect of Foreign and Government Holdings on the Stock Price Crash Risk of PCFs*

In the additional analysis, we look at the influence of government and foreign strategic shareholdings (more than 5 percent according to Thomson Reuter Datastream's definition) on the stock price crash risk. Goncharov, Werner, and Zimmerman (2006) use the number of free float shares as a proxy of market pressure.

We investigate the effect of foreign strategic shareholdings ($ForeignHoldings_{t-1}$) and government strategic shareholdings ($GovHoldings_{t-1}$) in the sub-sample period after GE 2008 (2008-2017). The interaction terms as shown in Table 8 are constructed by multiplying $ForeignHoldings_{t-1}$ as well as $GovHoldings_{t-1}$ with each type of PCF. Panel A in Table 8 shows that the estimate of $ForeignHoldings_{t-1} \times BOARD_{t-1}$ is significantly negative relative to both measures of stock price crash risk. In Panel B, only the estimate of $GovHoldings_{t-1} \times GOVSHR_{t-1}$ is significantly negative relative to both measures of stock price crash risk.

This additional analysis suggests that increasing foreign shareholdings contribute to the additional monitoring of the top management's decision-making. Political connection through the board of directors may not be effective when the level of foreign shareholdings increases. However, foreign shareholdings do not bring any significant change in the decision of politically connected businessmen. As for PCFs through government direct shareholdings, increasing the holdings of the government stabilizes the firms' stock prices.

7. CONCLUSION

Malaysia has experienced political changes in the past 10 years through GE 2008 and GE 2013 although the ruling party remains the majority seats in the parliament. This study investigates the impact of these exogenous shocks on the relationship between PCFs and stock price crash risk. We compare the changes in the crash risk before and after the political turmoil caused by GE 2008 and GE 2013. Our results showed that throughout the GEs, the crash risk of PCFs in Malaysia decreased after GE 2008. We suggest that the increasing power of the opposition party in politics throughout GE 2008 and GE 2013 provided a closer monitoring role over PCFs, and has also narrowed the information gap between major and minority shareholders. Thus, pricing a firm's stock could be more accurate with sufficient information fairly distributed to every investor, which ultimately lowers the crash risk. Our findings conclude that the two exogenous shocks is effective in reducing the political elements that may become a liability to the firms. Our finding adds to Tee (2017)'s finding suggesting that lower stock price informativeness of PCFs is only true for the period before the GE 2008 and GE 2013. Our main finding complements Piotroski et al. (2015) who highlighted the critical political factors shaping listed firms' information environment (Luo et al., 2016).

This study implies that government shareholdings do not exert major political disturbance on the PCFs. However, PCFs through the board of directors and businessmen are likely to have an impact by the political turmoil. Increasing foreign shareholdings could help with this issue but it is only applied to the political connection through the board of directors. However, PCFs through family

members do not show any significant change throughout GE 2008 and GE 2013. In short, this study shows that the types of political connection matter because not PCFs are affected by political turmoil. Future studies can further examine whether government-owned, family-owned and foreign-owned firms could constitute a change in the results.

Acknowledgement

The authors would like to extend their appreciation to the Ministry of Higher Education Malaysia for Fundamental Research Grant Scheme with Project Code of FRGS/1/2021/SS01/UKM/02/4.

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