

# **How important are political connections for financing decisions in post-communist economies? The case of Vietnam**

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## **Abstract**

Since the open-door policy of 'Doi Moi' was launched in 1986, Vietnam has made great strides, from among the world's most impoverished nations to a lower middle-income country. During the development process, there is a growing tendency towards the co-operation between public and private sectors with the emergence of state-owned enterprises. Earlier works in the literature pointed out that politically patronised firms may have a clear advantage over non-connected ones owing to either their close relationships with state institutions or their influence within major banks. This study, thus, investigates the differences in capital structure between politically patronised and non-connected firms. Applying difference-in-differences approach to a dataset of 160 Vietnamese firms over the 2006-2015 period, empirical results indicate that politically patronised firms tend to hold notably higher level of debt than non-connected peers. In additional analyses, taking an exogenous shock triggered by the 2008 financial crisis into consideration, the above results still remain true during the crisis as well as post-crisis period.

**Keywords:** political patronage, corporate leverage, difference-in-differences model, emerging market economies.

## 1. Introduction

Vietnam has currently been rated as among the fastest growing economies in Asia. From one of the most impoverished nations in the 1980s, it has been rising fast to become a lower middle-income country. In the past, Vietnam has followed a centralized economic model where the state fully owns production and business activities - the economy focuses on agriculture and heavy industry. At that time, Vietnam's economy was in the state of hyperinflation and financial crisis. Therefore, in 1986 the Government of Vietnam decided to adjust economic policies, transforming from a centralized economy to a multi-sector economy. During the reform process, the economy has appeared many economic sectors and the economic model commanded by the state. The connection between the state and enterprises is reflected in the existence of many state-owned enterprises and enterprises with state-contributed capital. According to statistics of Vietnam Chamber of Commerce and Industry (VCCI), in 2014, up to 95% of businesses operating in Vietnam are small and medium enterprises, yet, only 15% of which could have access to formal credit. Meanwhile, state-owned enterprises or enterprises with state-owned shareholders are more easily accessible to the capital market because most of the state-controlled enterprises are close and close customers with banks. Owing to these relationships, Vietnamese enterprises with a significant proportion of state ownership might have better access to loans from banking corporations regardless of their performance and repayment capacity (Okuda and Nhung, 2011). Furthermore, state-owned enterprises, with strong endorsement from the government, might be given a higher priority in accessing debt at low costs. As a result, they can use more debt than other businesses, *ceteris paribus*. Thus, we argue that the relationship between political patronage and corporate leverage is an issue of great concern, yet has not been studied or discussed intensively in Vietnam. To our best knowledge, researchers, namely Okuda and Nhung (2011) and Vy and Nguyet (2015), found conflicting results on the effects of state ownership on the capital structure for the case of Vietnamese publicly listed companies, though the differences in the research sample are negligible. This clearly stresses the importance of the assessment of the link between the state and the businesses, i.e. political patronage, in typically emerging market economies such as Vietnam.

This paper focuses on examining the impact of political connections on corporate financing decisions. Besides, during periods of economic instability, the close relationship between borrowers and borrowers becomes crucially important (Deesomsak et al., 2004). Therefore, state-backed businesses are more likely to borrow and hold more debt than firms without political endorsement during crisis periods. However, the unofficial government sponsorship may be reduced by the ferocious nature of a crisis if the crisis increases the systemic risk and causes insecurity to authorities and the government (Johnson and Mitton, 2003; Mitchell and Joseph, 2010). To clarify this issue, the present paper also explores whether the financial decisions of enterprises differ in the crisis period from the later recovery period, and how effective political patronage could be during each stage.

## 2. Theoretical background and literature review

Connections between government and businesses are common in countries which restrict foreign investment, yet might be deemed corruption in more transparent and open economies (Ebrahim et al., 2014). According to Faccio (2006), firms with political connections might receive certain privileges, namely: (i) preferential treatment by state-owned enterprises; (ii) preferential treatment in competition for government bidding packages; (iii) lowered taxation;

and (iv) relaxed regulatory monitoring of firms. Until the present time, there has been no academic studies providing standardized methods of identifying politically connected firms. In most studies (e.g. Faccio, 2006; Boubakri et al., 2008; Hung et al., 2012), companies are classified as politically connected once they are backed in terms of political power or management experience by politicians. Besides, alternative approaches have also been adopted, namely: (i) political connections are established through lobbying activities (Chen et al., 2012; Hill et al., 2014), or through financial support packages during election campaigns (Claessens et al., 2008; Lazzarini et al., 2012; Ovtchinnikov and Pantaleoni, 2012); (ii) potential beneficiaries of political privilege are determined through analysis of various geographical criteria (Siegel, 2007; Faccio and Parsley, 2009); (iii) a firm is acknowledged as politically connected based on the findings of previous research (Bliss and Gul, 2012).

In what form could political patronage be expressed, and how benefits and costs are distributed between stakeholders? As suggested by Frye and Iwasaki (2011), the relationship between government, state directors and businesses could be formed under three underlying hypotheses. First, state directors are empowered to prevent management from taking control of firms. This might imply the government's deep concern about firm performance and the political consequences of economic instability, whereby the government must assign state directors to less efficient firms to improve performance by disciplining management. Second, the rent-extraction hypothesis asserts that firms expend their best endeavours to retain political patronage to approach economic rents. Government attaches state directors to firms in order to reward interested parties whose endorsement is necessary for the retention of power. Nevertheless, state directors might abuse their position for personal gain at the cost of social welfare and firm performance. Third, under the collusion hypothesis, different cooperation mechanisms for mutual benefits could also be developed between government and businesses. In return for rents resulting from patronage privileges, firms might offer public goods and services to the government. However, existing evidence seems rather inconclusive. The collusion hypothesis was confirmed in studies of Wong (2010) for Hong Kong and Frye and Iwasaki (2011) for Russia. Meanwhile, Faccio (2006) in a cross-country study and Fan et al. (2007) for partially privatised firms in China supported the rent extraction hypothesis. Finally, Chinese evidence provided by Chang and Wong (2004) reveals that patronage could take different forms and generate different firm performance outcomes.

So far, the economic role of patronage has attracted great attention from scholars and it has been a large and growing body of literature. For instance, there are studies investigating

the impact of political connections on operating performance (Chang and Wong, 2004; Li et al., 2008; Wong, 2010; Jackowicz et al., 2014), capital market valuations (Goldman et al., 2008; Faccio and Parsley, 2009; Wu et al., 2010; Huber and Kirchler, 2011), the quality of financial statements (Chaney et al., 2011), the cost of debt (Bliss and Gul, 2012; Houston et al., 2014; Tee, 2018) and equity (Boubakri et al., 2012), the availability and terms of bank financing (Faccio, 2010; Boubakri et al., 2012; Houston et al., 2014), corporate governance (Fan et al., 2007; Kang and Zhang, 2012; Yeh et al., 2013), the adoption of corporate social responsibility standards (Di Giuli and Kostovetsky, 2014), diversification strategies (Li et al., 2011), access to government contracts (Goldman et al., 2013) and subsidies (Wu and Cheng, 2011), the likelihood of being bailed out by the government (Faccio et al., 2006; Blau et al., 2013) and taxation (Adhikari et al., 2006; Richter et al., 2009). This paper presents a critical review of the literature with focus on the role of political patronage in capital structure decisions of firms.

By and large, the empirical literature provides evidence in favour of the positive influence of political connections on corporate debt with the proposition that “more politically related, more highly levered”. Cross-country data shows politically patronised firms are significantly more levered than non-connected firms. For the former, debt is higher at firms connected to government through ownership compared to state directors sitting on corporate boards (Faccio, 2010). It is pertinent to consider why patronised firms enjoy preferential access to debt financing and why lenders are more willing to extend credit to them. State ownership of banks is a contributory factor as is the informal relations between government and private-owned banks; both can produce irresponsible lending to government-approved firms even if credit risks are higher (Bliss & Gul, 2012; Faccio, 2010). In explanation, lenders could be irrational; receive direct support from government; be coerced into making poor loans to politicians' friends; or lenders recognise patronised firms are more likely to benefit from government rescue than non-connected firms in the event of default. Patronised firms carry more debt than non-connected firms following bail-outs, which supports the proposition that lenders willingly finance patronised firms irrespective of operating performance (Faccio, 2006).

For the case of Vietnam, studies by Okuda and Nhung (2010) and Vy and Nguyet (2015) have examined the impact of state ownership on the capital structure of listed companies on the Vietnamese stock exchange. However, the results are very different in terms of the correlation between state ownership and capital structure, although the observations of the studies are quite similar. Vy and Nguyet (2015) use the percentage of state-held shares to measure state ownership and conclude that state ownership ratio is positively correlated with the debt ratio of Vietnamese enterprises during the study period from 2007 to 2012.

### 3. Methodology and data

#### 3.1. Data

The study employs data from annual financial statements of Vietnamese enterprises listed on the HNX and HOSE stock exchanges between 2006 and 2015. After eliminating financial and utilities businesses, as well as those starting listing after 2007, our final sample consists of 160 businesses. Secondary data is collected from Thomson Reuter's DataStream.

#### 3.2. Empirical model

The study employs difference-in-differences (DID) approach to empirically examine the impact of political patronage on corporate financing decisions. DID framework is designed to compare the differences between two target groups, one known as the 'treatment group' (leverage ratio of politically patronised firms) and the other one as the 'control group' (leverage ratio of non-connected firms). In clarifying this issue, we construct our model with two post-shock periods: (i) 2008-2009, representing the in-crisis period, and (ii) 2010-2015, capturing the following recovery period (Harrison and Widjaja, 2013). Accordingly, the estimated equation is written as follows:

$$Lev_{it} = \beta_1 * D_i + \beta_2 * E_{1t} + \beta_3 * E_{1t} * D_i + \sum \beta_l X_{it-l} * E_{1t} + \sum \beta_k X_{it-l} * E_{1t} * D_i + \beta_{22} * E_{2t} + \beta_{33} * E_{2t} * D_i + \sum \beta_m X_{it-l} * E_{2t} + \sum \beta_j X_{it-l} * E_{2t} * D_i$$

Where:

- $Lev_{it}$  denotes the corporate leverage, measured as the ratio of debt to total assets.
- $D_i$  is a measure of political patronage. According to Ebrahim et al. (2014), there are three methods for determining political patronage of firms. First, political patronage is defined, according to Gomez and Jomo (1997), to be an informal connection between politicians and businesses in terms of individuals (businesses there are shares held by friends, relatives of politicians, or held by the politicians themselves but through another representative). Second, the assessed enterprises are operating under political protection when they are controlled by state investment funds such as the Khazanah Nasional Berhad fund of Malaysia or the State Capital Investment Corporation (SCIC) of Vietnam. Third, there exists an investor in the enterprise that is protected by the government. However, due to shortages of data and information in Vietnam, this study combines the second and third methods to classify businesses that are protected by the state. Following this method, the political patronage variable receives the value of 1 if SCIC or a government-sponsored business has a state ownership ratio equal to or greater than 51%, and 0 otherwise.
- $E_{1t}$  equals 1 corresponding to the financial crisis period (2008-2009), and 0 otherwise.
- $E_{2t}$  equals 1 in case of the recovery period (2010-2015), and 0 otherwise.
- $X$  are variables measuring the characteristics of an enterprise that have an impact on the debt ratio such as firm size (measured as logarithm of total assets), profitability (measured as the ratio of EBIT to total assets), tangible assets (Tangibility), growth

potentials (measured by the market-to-book value ratio of the equity), industry average leverage (measured as the debt-to-assets ratio of peers), cash flow volatility (measured as the ratio of ROA to its standard deviation).

The coefficient  $\beta_1$  measures the degree of difference between the leverage ratio of the protected enterprise and the remaining enterprises over time. According to previous studies, it is found that businesses that are protected by politics with more debt than not too much, this leads to an expectation of  $\beta_1 > 0$ . The coefficient  $\beta_2$  indicates the reaction of blow rate seven of Vietnamese enterprises in the period of 2008-2009 compared to the pre-crisis period. Positive (negative)  $\beta_2$  indicates higher (lower) debt. The coefficient  $\beta_{22}$  indicates the reaction of leverage ratio of Vietnamese enterprises in the period of 2010-2014 compared to the pre-crisis period. Given that Vietnamese enterprises hold less debt levels in the post-crisis period because of the development of capital markets or to reduce issues related to agency costs, it is expected that  $\beta_{22} < 0$ .  $\beta_3$  is the interaction coefficient between  $D_i$  and  $E_{1t}$  and the measure of the impact of exogenous shock on the leverage of protected enterprises in the period of 2008-2009.  $\beta_{33}$  is the interaction coefficient between  $D_i$  and  $E_{2t}$ , measuring the impact of exogenous shock on the leverage of protected businesses in the period 2010-2014.

The paper combines  $E_{1t}$  and  $E_{2t}$  with business characteristics to justify how these variables affect leverage at each stage. The coefficients  $\beta_l$  and  $\beta_m$  measure the impact of characteristic variables of enterprises in the post-crisis period and during the crisis period. To judge whether political patronage affects the relationship between business characteristic variables and leverage, each of those interactions will be combined with  $D_i$  - reflected through coefficients  $\beta_k$  and  $\beta_j$ .

## 4. Results and discussion

### 4.1. Summary statistics

Table 1 presents the summary statistics of the variables. The number of observations for businesses that are protected is moderate (notably, there is no observation in two sectors, namely technology and oil and gas). In general, the average leverage ratio of politically connected companies is higher than that of the non-connected in all sectors, of which telecommunications, transportation, warehousing and logistics witnessed particularly large differentials. This proves that in Vietnam, political sponsorship seems to have insignificant impact on the enterprises' ability to use leverage. On the other hand, our descriptive statistics initially support conclusions of the earlier studies, that politically patronised firms would be likely to hold higher degrees of debt (Fraser et al., 2005; Bliss and Gul, 2012; Ebrahim et al, 2013).

**Table 1: Descriptive statistics**

Sector	Obs	Leverage	Size	Profitability	Growth	Tangibility	Industry	Volatility
<i><b>Non politically connected firms</b></i>								
- Information and technology	58	0.387	95.774	0.103	0.677	0.103	0.461	1.074
- Professional, scientific and technical services	16	0.491	170.248	0.104	0.623	0.121	0.561	1.195
- Mining, oil and gas	53	0.437	5,384.371	0.162	1.029	0.280	0.633	1.739
- Agriculture, forestry and fishery	52	0.233	769.726	0.195	1.251	0.173	0.453	2.371
- Wholesale and retail trade	125	0.522	673.993	0.091	0.622	0.118	0.642	0.826
- Manufacturing	568	0.417	1,089.110	0.110	1.928	0.232	0.506	1.105
- Transportation and warehousing	125	0.392	1,228.871	0.111	0.742	0.383	0.520	1.138
- Construction and real estate	192	0.644	1,101.373	0.071	0.703	0.111	0.696	0.560
<i><b>Politically connected firms</b></i>								
- Information and technology	9	0.538	11,885.690	0.179	1.397	0.111	0.549	1.898
- Professional, scientific and technical services	-	-	-	-	-	-	-	-
- Mining, oil and gas	-	-	-	-	-	-	-	-
- Agriculture, forestry and fishery	19	0.273	313.083	0.183	1.299	0.109	0.454	2.160
- Wholesale and retail trade	17	0.597	791.577	0.108	0.552	0.094	0.685	0.775
- Manufacturing	126	0.574	2,026.050	0.126	0.983	0.207	0.502	1.180
- Transportation and warehousing	8	0.632	2,661.949	0.072	0.696	0.855	0.605	0.444
- Construction and real estate	53	0.663	976.926	0.083	0.613	0.214	0.717	0.694

*Source: Authors' calculations*

## 4.2. Research findings

DID is a form of regression model with assumptions similar to OLS assumptions. It is assumed that the remainder must be independent of each other. In many cases due to the characteristics of the sample, the remainder of the observations in each group is not independent. To overcome this issue, regression can be performed with strong standard errors and cluster options. The idea of cluster regression methods is to make adjustments in estimates to overcome the disadvantages of data. With the regression method options with this strong standard error, the estimation of the coefficients in the equation will be the same as the normal regression of DID but the standard errors in this regression result have been considered. Change variance and normal distribution. Table 2 demonstrates the results from 5 models in 5 columns, in which column 1 is the result of DID regression model. To test the robustness of the estimated results, the paper uses a strong annual error (cluster) to control the chain correlation of the dependent variable for model estimation. Figure 2 and eliminate dummy crisis of  $E_1$  and post-crisis  $E_2$  to consider the impact of unobserved factors in normal conditions. For example, the level of leverage can be affected by institutional factors such as economic conditions, business cycles, legal environment, legal structure and economic growth rate. Next is model 4 created from model 2 and eliminating dummy political protection (D) to assess the impact of unobservable enterprise specific factors. Finally, remove the time dummy and the interaction variable between the industry average leverage and the dummy variable  $E_1$  and  $E_2$  from model 2, the model has built the model 5. Purpose of the model 5 is to control the sectoral fixed effects corresponding to each period but not observed in the model, with the assumption that these factors can cause differences in the debt ratio of enterprises.

**Table 2: Impact of political patronage on corporate leverage**

Variables	Coefficient	Model 1	Model 2	Model 3	Model 4	Model 5
$D_i$	$\beta_1$	0.121*** (0.027)	0.121*** (0.038)	0.130*** (0.039)		0.129*** (0.039)
$E_{1t}$	$\beta_2$	-0.876*** (0.217)	-0.876*** (0.283)		-0.894*** (0.283)	
$D_i * E_{1t}$	$\beta_3$	0.025 (0.398)	0.025 (0.554)	-0.829* (0.474)	0.156 (0.538)	-0.819* (0.474)
Size * $E_{1t}$	$\beta_{11}$	0.022*** (0.008)	0.022*** (0.011)	-0.009*** (0.002)	0.022** (0.011)	0.004*** (0.001)
Prof * $E_{1t}$	$\beta_{12}$	0.372 (0.454)	0.372 (0.480)	0.101 (0.438)	0.368 (0.481)	0.488 (0.530)
Grow * $E_{1t}$	$\beta_{13}$	-0.000 (0.000)	-0.000 (0.000)	-0.000** (0.000)	-0.000 (0.000)	-0.000 (0.000)
Tang * $E_{1t}$	$\beta_{14}$	0.098 (0.065)	0.098 (0.084)	0.094 (0.083)	0.097 (0.084)	0.030 (0.091)
Ind * $E_{1t}$	$\beta_{15}$	0.620*** (0.071)	0.620*** (0.092)	0.595*** (0.091)	0.619*** (0.093)	
Vol * $E_{1t}$	$\beta_{16}$	-0.118*** (0.042)	-0.118*** (0.043)	-0.106*** (0.039)	-0.118*** (0.043)	-0.150*** (0.048)
Size * $E_{1t} * D_i$	$\beta_{k1}$	0.003 (0.017)	0.003 (0.023)	0.034* (0.020)	0.003 (0.023)	0.020 (0.020)



Variables	Coefficient	Model 1	Model 2	Model 3	Model 4	Model 5
Prof * E <sub>1t</sub> * D <sub>i</sub>	$\beta_{k2}$	0.308 (0.848)	0.308 (0.901)	0.533 (0.880)	0.303 (0.902)	0.137 (0.931)
Grow * E <sub>1t</sub> * D <sub>i</sub>	$\beta_{k3}$	0.026 (0.067)	0.026 (0.074)	0.032 (0.074)	0.027 (0.074)	0.032 (0.074)
Tang * E <sub>1t</sub> * D <sub>i</sub>	$\beta_{k4}$	-0.179* (0.102)	-0.179 (0.134)	-0.175 (0.134)	-0.179 (0.134)	-0.113 (0.139)
Ind * E <sub>1t</sub> * D <sub>i</sub>	$\beta_{k5}$	-0.251* (0.143)	-0.251 (0.185)	-0.224 (0.186)	-0.250 (0.186)	0.371** (0.163)
Vol * E <sub>1t</sub> * D <sub>i</sub>	$\beta_{k6}$	-0.013 (0.084)	-0.013 (0.086)	-0.021 (0.084)	-0.012 (0.085)	0.025 (0.089)
E <sub>2t</sub>	$\beta_{22}$	-1.298*** (0.120)	-1.298*** (0.221)		-1.316*** (0.221)	
D <sub>i</sub> * E <sub>2t</sub>	$\beta_{33}$	0.870*** (0.266)	0.870** (0.414)	-0.379 (0.347)	0.991** (0.411)	-0.372 (0.349)
Size * E <sub>2t</sub>	$\beta_{m1}$	0.041*** (0.005)	0.041*** (0.009)	-0.004* (0.002)	0.041*** (0.008)	0.005*** (0.001)
Prof * E <sub>2t</sub>	$\beta_{m2}$	0.880*** (0.312)	0.880*** (0.422)	1.255*** (0.448)	0.880*** (0.422)	1.406*** (0.472)
Grow * E <sub>2t</sub>	$\beta_{m3}$	0.013 (0.019)	0.013 (0.024)	0.038 (0.028)	0.012 (0.024)	0.028 (0.029)
Tang * E <sub>2t</sub>	$\beta_{m4}$	0.003 (0.034)	0.003 (0.060)	0.011 (0.071)	0.003 (0.060)	0.002 (0.076)
Ind * E <sub>2t</sub>	$\beta_{m5}$	0.500*** (0.056)	0.500*** (0.086)	0.428*** (0.082)	0.500*** (0.086)	
Vol * E <sub>2t</sub>	$\beta_{m6}$	-0.165*** (0.028)	-0.165*** (0.035)	-0.208*** (0.036)	-0.165*** (0.035)	-0.235*** (0.039)
Size * E <sub>2t</sub> * D <sub>i</sub>	$\beta_{j1}$	-0.022** (0.011)	-0.022 (0.014)	0.023** (0.011)	-0.022 (0.014)	-0.013 (0.011)
Prof * E <sub>2t</sub> * D <sub>i</sub>	$\beta_{j2}$	-1.859*** (0.453)	-1.859*** (0.555)	-2.292*** (0.576)	-1.862*** (0.555)	-2.443*** (0.594)
Grow * E <sub>2t</sub> * D <sub>i</sub>	$\beta_{j3}$	-0.054* (0.031)	-0.054 (0.037)	-0.073* (0.039)	-0.053 (0.037)	-0.063 (0.040)
Tang * E <sub>2t</sub> * D <sub>i</sub>	$\beta_{j4}$	-0.046 (0.061)	-0.046 (0.096)	-0.049 (0.105)	-0.046 (0.096)	-0.039 (0.109)
Ind * E <sub>2t</sub> * D <sub>i</sub>	$\beta_{j5}$	-0.329*** (0.126)	-0.329** (0.166)	-0.253 (0.165)	-0.329** (0.166)	0.173 (0.145)
Vol * E <sub>2t</sub> * D <sub>i</sub>	$\beta_{j6}$	0.177*** (0.046)	0.177*** (0.053)	0.223*** (0.054)	0.177*** (0.053)	0.251*** (0.057)
Constant		1.663 (11.568)	1.663 (10.350)	18.930* (10.892)	-0.679 (10.498)	20.193* (11.649)
Obs		1465	1465	1465	1465	1465
R <sup>2</sup>		0.353	0.353	0.301	0.344	0.242

Notes: Standard deviations in brackets;

\*\*\*, \*\*, \* indicate significance at 1%, 5% and 10%, respectively.

Research results from models 1 and 2 show that political patronage explains the differences in leverage between the two groups of protected and unprotected enterprises through coefficient  $\beta_1 = 0.121 > 0$ , statistically significant at 1% level. This result is consistent with the initial statistical analysis and results of previous studies, that businesses with the strong support from the government are more likely to access to loans than non-connected ones (Faccio, 2006; Bliss and Gul, 2012; Yeh et al., 2012; Fraser et al., 2005; Li and Xia, 2013). Next is the coefficient  $\beta_2$  of dummy variable  $E_1$  representing the crisis

period,  $\beta_2 < 0$  showing that the leverage level of enterprises in this period tends to decrease sharply. Accordingly, when the economy falls into crisis, all businesses face difficulties in borrowing due to high bankruptcy costs. However, the estimation results also show that there is no difference in the level of decline in debt ratio between the two groups of enterprises because the coefficient  $\beta_3$  of the interaction variable  $E_1 * D$  is not statistically significant. From this result it can be concluded that political protection does not work to support businesses to increase access to loans when a crisis occurs. In addition, the estimation model also calculates the degree of impact of each basic factor on leverage in the crisis period through the coefficients  $\beta_1$  of the interaction variables. From the results, most of the coefficients are not statistically significant except interactive variables  $Size * E_1$  and  $Vol * E_1$ , synonymous with crisis periods such as profit, investment opportunities and assets. fixedness is less considered when managers decide capital structure compared to the pre-crisis period. Instead, the scale of enterprises and the fluctuation of cash flow are more concerned, expressed through the coefficients  $\beta_{11} > 0$  and  $\beta_{16} < 0$ . This shows that when the financial crisis occurs, businesses with business difficulties increase business risks, the financial institutions or creditors mostly pay attention to the size of the business and cash flow fluctuations to make credit decisions without regard to other characteristics such as the pre-crisis period. However, administrators still employ the industry average leverage to determine the debt ratio of businesses even when the crisis occurs.

Next, coefficient  $\beta_k$  is regarded to assess whether the impact of the economic crisis changes the ability to predict leverage of specific factors in protected businesses? The results show that most of the coefficients are insignificant, except the  $Ind * E_1 * D$  is statistically significant. This suggests that businesses in this crisis period have a leverage ratio towards industry leverage but for businesses that are protected by politics, the sector leverage ratio is not much affected. The reason is that in the turbulent crisis period, enterprises with political protection will receive financial support from the state, mainly depending on the state's financing policy, so the direction to leverage the industry is no longer available. too important (Deesomsak et al., 2004).

The next concern is the levels of leverage of businesses in the post-crisis period and the differences in capital structure between politically connected enterprises and non-connected ones. Negative coefficient  $\beta_{22}$  indicates that compared with the pre-crisis period (2005 - 2007), the leverage level of all businesses decreased significantly. This result is similar to the study of Ebrahim et al (2014) in Malaysia. The lower debt ratio reflects the development of the equity market and the problems of agency costs have decreased. Positive and statistically significant coefficient  $\beta_{33}$  points to the reality that politically connected businesses use more debt than those without state sponsorship.

The coefficient  $\beta_m$  determines the level of impact of each factor on leverage in the post-crisis period. Research results show that the factors including scale, profit, the level of fluctuation of cash flow have a degree of influence on the decision of capital structure of enterprises like the period before crisis. Finally, the coefficients  $\beta_j$  represent the difference in

the impact of each factor on leverage between the unprotected enterprise and the protection of the financial crisis. The results showed that only the tangible asset factor was found no evidence that there was a difference, while the remaining elements showed differences in the recovery period.

Next is the result of model 3, when the dummy variables  $E_1$  and  $E_2$  are excluded from the estimation equation to consider the effect of unobserved time elements. The results in column 3 of Table 2 show that there is no difference in the values of the coefficients  $\beta_l$  and  $\beta_k$ , which means that separate effects of unobservable time such as institutions and economic cycles are taken into account in the model, the difference in leverage between connected and non-connected enterprises still exists and the predictability of specific elements remains unchanged. However, when considering the coefficients  $\beta_m$  and  $\beta_j$  in model 3, in the post-crisis recovery period, the predictability of six basic factors seems better than the previous period since coefficient  $\beta_m$  is positive and statistically significant. In contrast, the values of the coefficient  $\beta_j$  is positive for the interaction variables  $\text{Size} \cdot E_2 \cdot D$  and  $\text{Vol} \cdot E_2 \cdot D$ . From this result, it is clear that politically connected enterprises are less affected by macro factors, typical characteristics of the economy, thus the leverage levels of these businesses remain less volatile. Results obtained from model 5 are similar to model 3, indicating that sector-specific determinants at each stage might contribute to the financing decision making of the non-connected businesses at a stronger levels than politically connected ones. Finally, results of model 4 (which derives from model 2, yet eliminates dummy variable  $D$  to justify the impact of specific characteristics of enterprises) are similar to model 2. Therefore, it is concluded that the leverage level of enterprises is fully reflected through five characteristic factors, viz. scale, profit, investment opportunities, profit volatility and fixed assets.

## 5. Conclusion

The objective of this paper is to examine the impact of political patronage on the capital structure of enterprises under exogenous shock. Applying DID approach, our results reveal that politically patronised businesses, thanks to the state endorsement in credit mobilization, tend to have higher degrees of financial leverage than those without state support. However, differences between the two groups decreased as during the financial crisis and the recovery periods. During the 2008-2009 financial period, all businesses cut their debt levels, where political patronage did not have significant effect. The reason behind this is primarily due to the financial crisis causing systemic risks to increase, under which the government is afraid that capital support for businesses might possibly worsen the budget deficit, thus, the degrees of patronage decreases. Turning into the post-crisis period, businesses continued to reduce their debt holdings as in the development phase of the equity market, agency costs start reducing and equity capital becomes far more preferable. In addition, we found evidence that the leverage levels of politically patronised firms are less likely to be affected by unobservable characteristic factors such as institutions and economic cycles than firms without political connection. Therefore, as there are transformations in the

economic situation, politically patronised firms tend to have more stable levels of leverage than non-connected ones.

As Vietnamese economy has been en route for greater integration with the global economy, state incentives for typical enterprises would be gradually diminishing with commitments to establishing equality in the business community. Under the circumstances, it is essential that patronised businesses achieve satisfactory resolution for not falling into difficulties due to lack of capital.

## References

- Bliss, M.A., & Gul, F. A. (2012). Political connection and the cost of debt: Some Malaysian evidence. *Journal of Banking and Finance*, 36, 1520–1527.
- Deesomsak, R., Paudyal, K., & Pescetto, G. (2004). The determinants of capital structure: Evidence from the Asia Pacific region. *Journal of Multinational Financial Management*, 14, 387–405.
- Ebrahim, M. S., & Mathur, I. (2013). On the efficiency of the UPREIT organizational form: Implications for the sub-prime crisis and CDO's. *Journal of Economic Behaviour and Organization*, 85, 286–305.
- Faccio, M. (2006). Politically-connected firms. *American Economic Review*, 96, 369–386.
- Faccio, M., Masulis, R. W., & McConnell, J. J. (2006). Political connections and corporate bailouts. *The Journal of Finance*, 61(6), 2597–2635.
- Fisman, R. (2001). Estimating the value of political connections. *American Economic Review*, 91, 1095–1102.
- Fraser, D. R., Zhang, H., & Derashid, C. (2006). Capital structure and political patronage: The case of Malaysia. *Journal of Banking and Finance*, 30, 1291–1308.
- Fu, J., Shimamoto, D., & Todo, Y. (2017). Can firms with political connections borrow more than those without? Evidence from firm-level data for Indonesia. *Journal of Asian Economics*, 52, 45–55.
- Goldman, E., Rocholl, J., & So, J. (2013). Politically connected boards of directors and the allocation of procurement contracts. *Review of Finance*, 17(5), 1617–1648.
- Gomez, E. T., & Jomo, K. S. (1997). Malaysia's political economy: Politics, patronage and profits. *Cambridge: Cambridge University Press*.
- Harrison, B. A. R. R. Y., & Widjaja, T. W. (2013). Did the financial crisis impact on the capital structure of firms?. *Discussion Papers in Economics*, 5.
- Johnson, S., & Mitton, T. (2003). Cronyism and capital controls: Evidence from Malaysia. *Journal of Financial Economics*, 67, 351–382.

- Khwaja, A. I., & Mian, A. (2005). Do lenders favour politically connected firms? Rent provision in an emerging financial market. *Quarterly Journal of Economics*, 120, 1371–1411.
- Leuz, C., & Oberholzer-Gee, F. (2006). Political relationships, global financing and corporate transparency: Evidence from Indonesia. *Journal of Financial Economics*, 81, 411–439.
- Li, A., & Xia, X. (2013). Political Connections, Financial Crisis and Firm's Value: Evidence from Chinese Listed Firms. *International Journal of Business and Management*, 8(18), 63.
- Li, H., Meng, L., Wang, Q., & Zhou, L. A. (2008). Political connections, financing and firm performance: Evidence from Chinese private firms. *Journal of development economics*, 87(2), 283-299.
- Lim, T. C., Chai, R., Zhao, D., & Lim, X. Y. (2012). Capital structure and political patronage: Evidence from China. *American Journal of Business and Management*, 1(4), 177-182.
- Mitchell, H., & Joseph, S. (2010). Changes in Malaysia: Capital controls, prime ministers and political connections. *Pacific-Basin Finance Journal*, 18, 460–476.
- Okuda, H., & Nhung, L.T.P. (2011). Fundraising Behaviors of Listed Companies in Vietnam: An Estimation of the Influence of Government Ownership. Center for Economic Institutions.
- Sapienza, P. (2004). The effects of government ownership on bank lending. *Journal of financial economics*, 72(2), 357-384.
- Shleifer, A., & Vishny, R. W. (1994). Politicians and firms. *Quarterly Journal of Economics*, 109, 995–1025.
- Tee, C.M. (2018). Political connections and the cost of debt: Re-examining the evidence from Malaysia. *Journal of Multinational Financial Management*, 46, 51-62.
- Vy, L.T.P., & Nguyet, P.T.B. (2015). The impact of state ownership on financial decisions: Empirical evidence in Vietnam. *Journal of Development and Integration*, 22 (32), 50-57.
- Wu, W., Wu, C., & Rui, O. M. (2012). Ownership and the value of political connections: Evidence from China. *European Financial Management*, 18(4), 695–729.
- Yeh, Y. H., Shu, P. G., & Chiu, S. B. (2013). Political connections, corporate governance and preferential bank loans. *Pacific-Basin Finance Journal*, 21(1), 1079-1101.