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Foreign invested firms' responses to policy changes: an empirical analysis in Vietnam

Vuong Thi Thao Binh[1]

Foreign Trade University, Hanoi, Vietnam

Nguyen Van Thang

Asia - Pacific Institute of Management, Hanoi, Vietnam

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Abstract

Previous studies on responses of Foreign Direct Investment (FDI) firms to policy changes mainly focus on the impact of government policies on foreign investment flows in a country or in a province. So far, there has been no research on how Foreign Direct Investment enterprises, which are investing in Vietnam, react to unexpected changes in policies. We focus on studying some main factors affecting the behavior of FDI firms in Vietnam when the policy changes adversely. Using the data set of the annual Vietnam Provincial Competitiveness Index (PCI) survey with the foreign invested firms (FIFs) in Vietnam for 4 years from 2013 to 2016, the study shows that enterprises' behaviors strongly depend on the capacity to predict changes in government policies. The policy changes directly affect business activities, so policymakers need to make a long-term stability plan to attract the FIFs. In addition, the FIFs tend to choose moving production to another country or coordinating with other businesses if local leaders are highly transparent. The opposite is true for the proactivity. In the case that local leaders are proactive, it helps FIFs feel secure to invest with enthusiastic support so the desire to move location or coordinate with other businesses is reduced. On the other hand, the FIFs are more likely to employ both formal and informal diplomacy if there is an increase in the number of employees, time spent interacting with government officers and prediction about policy change. Moreover, it is more likely to employ formal diplomacy than informal diplomacy in the case of FIFs' size expanding. Similar to that case, it is true when increasing the capability of predicting harmful policy changes. We also find that the tendency of choosing formal diplomacy of foreign leaders is higher than that of Vietnamese leaders.

Keywords: Foreign direct investment, Formal diplomacy, Informal diplomacy, Firms' behaviour

[1] Corresponding author: vuongbinh@ftu.edu.vn

1. Introduction

In 1987, Vietnam issued its first ever Law on Foreign Investment. The liberal FDI policy has been reflected in a number of regulatory changes and developments. The FDI law was amended several times in 1990, 1992 and 2000, and replaced by new laws in 1996, 2005 and 2014. These changes and amendments were aimed to remove obstacles against the operation of foreign investors and to improve the investment climate in Vietnam. As a result, finding the ways to attract foreign capital into domestic companies is a concern to not only firms' owners but also policy makers (Vinh *et al*., 2017).

The Vietnam Chamber of Commerce and Industry (VCCI) has conducted an annual survey of foreign investors in Vietnam to collect their opinion on the investment climate at the local level[2]. The survey generally shows that Vietnam is now considered an attractive destination by many foreign investors, due to low costs, suitable incentive policies, the stable political environment, and tax rates (Ngoc, 2017). However, there are still shortcomings in the process of amending and enforcing the Law on Investment that need adjusting to suit the new situation. The deeper international economic integration and Industry Revolution 4.0 lead to a fierce competition, which are causing structural shifts and investment trends in the world. Therefore, changing and amending the FDI policy to improve the investment climate will be a regular focus of the Vietnamese Government every year.

According to the latest statistics of Foreign Investment Department (Ministry of Planning and Investment)[3], the investment of the FIFs in Vietnam depends on the following main factors: (1) Political stability; (2) Preferential policies to attract foreign investors such as corporate income tax reduction, import tax exemption for some commodities, reduction of renting and using land, etc., which creates favorable conditions and flexible procedures for investors to invest; (3) Vietnam's openness to the global economy shown by the act of signing of trade agreements such as Members of the ASEAN Free Trade Area, European-Vietnam Free Trade Agreement, the Bilateral Trade Agreement with the United States, the Member of the World Trade Organization, the bilateral trade agreements with the US, South Korea, Japan, European Union, ASEAN Economic Community, etc.; (4) Competitive labor market (The abundant young labor force, labor costs are considered competitive with the regions with good working skills and high adaptability to the working environment while the labor cost is only 10% or 5% of that in industrialized countries, which is lower than in countries with similar income levels).

In connection with performance of investment and business activity, the FIFS do not exist in isolation but work in an environment of- economic interactions. Changes from the business environment can create both opportunities and threats, threatening the existence and development of enterprises. In general, the business environment affects an enterprise's

[2] http://vsi.gov.vn/vn/chi-tiet-thi-truong/thach-thuc-cua-viec-thay-doi-chinh-sach-doi-voi-nha-dau-tu-fdi-tai-viet-nam-c1id68.html

[3] http://fia.mpi.gov.vn/chuyenmuc/29/Bao-cao-dau-tu

operations regarding its goals and strategies to production and business results. The environmental factors can impact the businesses in two different directions. The first direction is that the business environment provides a good opportunity for business activities through various investment incentives such as offering tax holidays, or refunding the profit taxes for reinvested funds. The other is about disadvantages of factor investing like the change in tax policy. These changes will change the entire original business plan because rising costs will reduce revenue and reduce the profit or extend the payback period of investment. Investors may hesitate to decide to expand their investment in Vietnam when they have to face frequent policy changes, tax rates or requirements to change their business model. At the seminar on "Challenges of policy changes for foreign investors in Vietnam" in 2017, representatives of the FDI enterprises said that the change of some State guidelines and the inconsistency cause instability to the investors because it is difficult for them to choose the direction of investment and business. This article focuses on what the FDI enterprises in Vietnam will do to solve the problems regarding adverse policy changes. Based on the PCI enterprise survey data from 2013 to 2016, the study examines the relationship between the FIFs behavior and the capacity to predict changes in government policies, specifically, whether the FDI enterprises tend to prefer formal diplomacy when transparency in local governance increases. Apart from that, the study also examines the relationship of local dynamism and firm behaviors.

The rest of the paper is organized as follows: section 2 presents an overview of corporate behaviors relating to government policy. Part 3 introduces the data sets and research methods. Part 4 describes the research results and discussion. The final section, section 5, is about conclusions and suggests further research.

2. Research overview

Studies investigating the reaction of firms to policy change are rather rare. Policy change refers to incremental shifts in existing structures, or new and innovative policies (Bennett and Howlett, 1992). Most of these studies have identified domestic economic environment, market size, quality of infrastructure, labor cost, economic openness, return on capital, political stability, etc., among the key variables that drive the flow of FDI. There are many conflicting results regarding the influence of the determinants to FDI (Chakrabarti, 2001). For example, Wheeler and Mody (1992) find that labor cost has positive effects on FDI, but Schneider and Bruno (1985) find that political instability significantly depresses FDI, while Loree and Guisinger (1995) find the effects to be insignificant. Notwithstanding these differences, the FDI literature continuously grows and captures the fascination of applied economists.

The present study considers the FIFs behavior relating to the transactional approach in favor of changing the policy in a positive way. When the policy changes adversely, what are the factors resulting in the FIFs behavior concerning contacting the leading officials through formal diplomatic channels or through individual diplomatic channels in order to reduce negative effects of changing policy? The study also examines some control variables to consider additional impacts from other aspects.

To identify the input variables, this section needs to determine the factors affecting the investment behavior of the FDI enterprises.

The relationship between local governments and multinational corporations regarding FDI has become an important topic in the field of international political economy. It is increasingly important for countries implementing policies of decentralization like Vietnam. This has resulted in various levels of government now being involved in managing FDI, with a bargaining process between local governments and FIFs being unavoidable to ensure the benefits of FDI flow to local citizens (Eden *et al.*, 2005). Specifically, in making FDI and other investment projects fit with local needs, decentralization facilitates a locally-controlled bargaining process involving local governments, local companies and MNCs (Guthrie, 1997). While the central government plays the dominant role in the FDI entry process, local governments play a significant role in the pre and post entry processes. They have authority to impose local taxes and to enact local regulations; therefore, a transparent business environment and proactive provincial leadership are crucial to attract FIFs.

The theory of investment behavior of Romer (1986) and Lucas (1988) shows that investor behavior is directly affected by: (i) Changes in demand; (ii) Interest rates; (iii) The level of development of the financial system; (iv) Public investment; (v) Human resources; (vi) Other investment projects in the same industry or in connected industries; (vii) The situation of technology development, the ability to acquire and apply technology; (viii) The stability of the investment environment; (ix) Procedural regulations; and (x) Sufficient level of information. Tho and Trang (2009) and Ho (2011) agree that the policy needs to be amended to satisfy the investors in an effort to attract foreign investments. At the same time, Tho and Trang (2009) and Ho (2011) also believe that investors' decisions are influenced by 08 factors: (i) Investment infrastructure; (ii) Investment policy regime; (iii) Living and working environment; (iv) Investment advantages; (v) Quality of public services; (vi) Local brand; (vii) Human resources; and (viii) Competitive input costs. Combining the investment behavior theory of Romer (1986) and Lucas (1988), because the macro-environment factors are the same for all firms, our study focus on factors relating to the characteristics of provinces and firms to answer the question that changing policies adversely leads to investors move production to other countries, plan coordinated action with other businesses or apply diplomacy to deal with unwanted changes. Some authors argue that FIFs have used their host governments from the engagement to minimize risks when investing in developing countries (MIGA, 2014). It shows that reducing risks through informal diplomacy with key leaders is the most effective approach used by foreign investors (MIGA, 2014).

Nevertheless, the decision about which actions the company should choose against a harmful policy change is not easy. With regards to factors influencing this decision, culture is one of factors influencing this decision (Bhardwaj *et al.*, 2007). Implementing sociology-driven institutional perspective (Meyer and Rowan, 1977; Scott, 1995) and organizational learning (Argote, 2012; Crossan *et al.*, 1999 and Dang, 2013), we propose that FIFs employ

adaptation and transference learning mechanisms to cope with harmful policy changes in their home country and host localities.

In addition, the employment of a local leader to head the FIFs increases the FIFs' susceptibility to local norms. At the individual level, FIFs' course of action may originate from pre-socialization via previous professional experiences (Orudzheva *et al.*, 2018). The manager firstly recognizes patterns in other local managers' interactions with public officials. Through socializing with local peers, the manager then gives meanings to these behaviors. He/she could then learn how local people would view and name these behaviors (Cuervo-Cazurra, 2016; Tillen and Delman, 2010). Locally born and raised leaders have had more time socializing with local stakeholders, and thus are more likely to internalize local values (Nguyen, Ho, *et al.*, 2016; Spencer and Gomez, 2011). Next, the use of local leaders enhances social proximity. Local leaders have better knowledge and skills in navigating the local business environment, especially where the latter is not transparent and predictable (Zhao *et al.*, 2014). They also possess better connections with local stakeholders, including connections with government officials (Peng and Luo, 2000; Spencer and Gomez, 2011; Zhao *et al.*, 2014), which allows them better access to related information.

Moreover, it is true that the prediction of changes in framework allows them to operate their firms more stably, because of that reason, a variable moderating how predictable policies change are included in the model. In addition to the control variables, we create dummy variables to test for firms in manufacturing, service and trading, and real estate and construction, agriculture, mining, finance and banking.

The FIFs behaviour variable has only two possible outcomes, thus we have chosen a logistic regression model to study the foreign-invested firms' behavior as a result of policy changes.

3. Data and research methods

3.1 Data

This study uses the PCI enterprise survey data from 2013 to 2016. The Provincial Competitiveness Index is the result of a long-standing collaborative effort between the Viet Nam Chamber of Commerce and Industry and the United States Agency for International Development to enhance provincial economic governance to create a business-enabling environment in Vietnam, thereby bringing about benefits for the development of the business community. The PCI Index ranks Vietnam's sixty-four provinces based on a variety of indicators, which are:

- Low entry costs for business start-ups;
- Easy access to land and security of business premises;
- A transparent business environment and equitable business information;
- Minimal informal charges;
- Limited time requirements for bureaucratic procedures and inspections;

• Minimal crowding out of private activity from policy biases toward the state, foreign, or connected firms;

• Proactive and creative provincial leadership in solving problems for enterprises;

• Developed and high-quality business support services;

• Sound labor training policies

• Fair and effective legal procedures for dispute resolution and maintaining law and order.

The PCI index measures and assesses the performance, capacity and willingness of provincial governments to develop business-friendly regulatory environments for private sector development. On a national scale, the PCI surveys provide rigorous empirical overviews of the business environment.

Enterprise behavior reflected from a question in the section H is that "Which strategies have you employed when you believe a policy change may harm your business?". This question is not available in the period before 2013 and after 2016 so our study is based on the data from 2013 to 2016.

Before 2017, the survey did not collect FIFs' tax codes to facilitate a creation of panel dataset. We, therefore, integrated every FIFs survey between 2013 and 2016 into a dataset of four repeated cross-sections of FIFs in Vietnam. This allows us to capture changes in the behaviours over the years and ensure that results are not the artefact of a single-shot survey within a particular year.

3.2 Research methods

The first thing is to choose variables regarding the public services from host countries. The Worldwide Governance Indicator consists of 6 groups: Voice and Accountability, Political Instability and Absence of Violence, Government Effectiveness, Regulatory Quality, Rule of Law, Control of Corruption. Our aim is to test the hypothesis that if the FIFs are from countries having a good institutional quality, they are more likely to employ some actions in order to change policies when they believe a policy change may harm their business. Hence, we choose 3 groups dealing with the institutional quality, which are the following indicators:

(1) VoiceandAcountability = Reflect perceptions of the extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media;

(2) GovernmentEffectiveness = Reflect perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies;

(3) RegulatoryQuality = Reflect perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.

According to Table 1, the correlation coefficients are quite high (at least 0.9, p<.001), so we choose one which is RegulatoryQuality being an input variable affecting the investor behavior.

Table 1. Pairwise correlation coefficients of WGI components

Variables	(1)	(2)	(3)
1: VoiceandAcountability	1.000		
2: GovernmentEffectiveness	0.911***	1.000	
3: RegulatoryQuality	0.900***	0.984***	1.000
*** p<0.01, ** p<0.05, * p<0.1			

Source: Based on Author's Estimate from dataset of the WGI index

The host country's main factors affecting the investor's behavior when changing policies such as interest rates, financial systems are considered the same for every FIF in Vietnam. Therefore, we focus on enterprise-related factors determined from the above section, which are represented by Table 2.

Table 2. Variable definitions

Variables	Definitions
1- Transparency	Sub-Index 3: Transparency in PCI data
2- Proactivity	Sub-Index 7: Proactivity in PCI data
3- RegulatoryQuality	Regulatory Quality of Home country
4- Size	Number of Employees
5- TimeInteract	Time per year is spent interacting with government officers
6- PredictableLaws	How predictable are the changes in laws
7- NumberYear	Number of years from the time establishment
8- FiveMunicipalities	5 Municipalities under the central government
9- Ownership	Ownership =1 if manager's country is Vietnam, =0 for otherwise
10- Industry/Manufacturing	One of business fields
11- Construction/Investment in Infrastructure Construction	One of business fields
12- Service/Commerce	One of business fields
13- Agriculture/Forestry/Insurance	One of business fields
14- Mining	One of business fields
15- Finance/Banking/Insurance	One of business fields

Source: Based on Author's Estimate

Our model consists (The output is stored in Table 5) of 8 independent variables from variable 1 to variable 8 of Table 2. Moreover, Table 6 adds more control variables, which are ownership and six business fields (from variable 9 to variable 15 of Table 2). Table 3 describes the descriptive statistics of the variables included in this research.

Table 3. Variable definitions

Variables	Obs	Mean	Std.	Min	Max
Transparency	6,234	6.148	0.511	4.640	7.325
Proactivity	6,234	4.651	0.881	3.083	7.723
RegulatoryQuality	5,778	0.443	1.482	-2.529	2.236
Size	6,054	4.065	1.751	1	8
NumberYear	6,011	8.127	5.244	0	38
FiveMunicipalities	6,234	0.479	0.499	0	1
PredictableLaws	5,379	2.301	0.974	1	5
Ownership	6,234	0.085	0.278	0	
TimeInteract	5,135	2.142	1.161	1	6
Industry/Manufacturing	6,234	0.516	0.499	0	1
Construction/Investment in Infrastructure Construction	6,234	0.072	0.259	0	1
Service/Commerce	6,234	0.292	0.454	0	1
Agriculture/Forestry/Insurance	6,234	0.028	0.164	0	1
Mining	6,234	0.002	0.047	0	1
Finance/Banking/Insurance	6,234	0.007	0.084	0	1

Source: PCI2013-2016 dataset, based on Author's Estimate

Table 4 provides correlation coefficients for the variables. Similar to other research, we examine the independent variables to ensure that they are not so highly correlated that their independent effects in the regression model cannot be determined. Using Pairwise correlations, the correlation magnitudes between independent variables get extremely small values. Therefore, collinearity in the data does not appear to be of major concern.

To represent business behavior, we use an output variable in order to collect the survey responses to the question "Which strategies have you employed when you believe a policy change may harm your business?

1. Take no action.
2. Move production to another country
3. Plan coordinated action with other businesses.
4. Appeal to embassy/consulate from my home country.
5. Lobby Prime Minister's office to try to change policy.
6. Lobby the National Assembly to try to change policy.
7. Lobby the provincial government to try to change policy implementation
8. Lobby provincial officials to obtain special exemption for my business.
9. Lobby line ministry officials to obtain special exemption for my business".

We group strategies 4 - 7 into "formal diplomacy" and strategies 8 - 9 into "informal diplomacy", the other strategies form in a single group. We will then consider the following five logistic models:

$$LogitP = \ln\frac{p}{1-p} = \alpha + \sum_{i=1}^{k}\beta_i X_i \Leftrightarrow \quad p = \frac{exp(\alpha + \sum_{i=1}^{k}\beta_i X_i)}{1 + exp(\alpha + \sum_{i=1}^{k}\beta_i X_i)}$$

where X_i is the set of independent variables mentioned in section 3.1; P is the probability that the output variable Y receives a value of 1 or 0 corresponding as follows:

Model 1: Y = 1 if FIFs take at least an action among 2 - 9 when they believe a policy change may harm their business; = 0 for otherwise (no action).

Model 2: Y = 1 if the FIFs move production to another country; = 0 for otherwise.

Model 3: Y = 1 if the FIFs plan coordinated action with other businesses; = 0 for otherwise.

Model 4: Y = 1 if the FIFs use formal diplomacy to influence policies; = 0 for otherwise.

Model 5: Y = 1 if the FIFs use informal diplomacy to influence policies; = 0 for otherwise.

4. Research results and discussion

Table 5 represents the estimated results of models 1 - 5 with all of independent variables 1 - 8. Table 6 represents the outcome of the models 1 - 5 with all of independent variables 1 - 8 and control variables (from variable 9 to variable 15 of Table 2).

With respect to Table 5, the transparency variable is statistically significant in only two models (Model 2 and Model 3). The marginal effect coefficients of Transparency of Model 2 (0.092, $p < .01$) and Model 3 (0.133, $p < .001$) are highly significantly positive, which shows that for the average state, rising provincial transparency index by 1 point might rise the probability that FIFs move their firms to other countries by 9.2% and FIFs coordinate with other businesses by 13.3%. It also shows that the more transparent the home leaders are, the more likely it is that the FIFs will coordinate with other businesses than they move their companies to other countries. It can be seen that while Transparency is significantly positive, the opposite is true for the Proactivity variable and the NumberYear variable in Model 2 and Model 3. Thus, the proactivity of the local leaders plays an important role and brings FIFs to feel secure to maintain their business with their enthusiastic support. On the other hand, time of operation in host localities is expected to influence FIFs' adaptation learning. As the estimation result of the NumberYear variable, the longer FIFs operate in host localities, their desire to move production or coordinate with other businesses is reduced.

The variable referring to regulatory quality of home countries, RegulatoryQuality, is significantly positive in Model 1 (0.037, $p < .01$). That means that the FIFs are from countries having a good institutional quality, they are more likely to apply some actions in order to change policies when they believe a policy change may harm their business.

Table 4. Pairwise correlations between variables

Variables	1	2	3	4	5	6	7	8	9	10	11	12	1	
1 - Transparency	1.000													
2 - Proactivity	0.062***	1.000												
3- RegulatoryQuality	0.025*	-0.050***	1.000											
4 -Size	-0.069***	0.181***	-0.070***	1.000										
5 - TimeInteract	0.055***	-0.049***	-0.014	0.005	1.000									
6 - PredictableLaws	0.019	-0.004	-0.028**	0.052***	0.094***	1.000								
7 - NumberYear	-0.024*	0.041***	0.108***	0.342***	-0.016	0.012	1.000							
8 - FiveMunicipalities	0.085***	-0.507***	0.144***	-0.257***	0.022	0.001	-0.029**	1.000						
9 - Ownership	0.004	-0.091***	0.085***	-0.089***	0.016	0.023*	0.045***	0.155***	1.000					
10 - Industry/ Manufacturing	-0.078***	0.182***	-0.026**	0.311***	-0.032**	0.009	0.096***	-0.332***	-0.107***	1.000				
11 - Construction/ Investment in Infrastructure Construction	0.023*	-0.111***	-0.077***	-0.153***	-0.017	0.040***	-0.053***	0.138***	0.004	-0.246***	1.000			
12 - Service/Commerce	0.005	-0.198***	0.094***	-0.304***	0.006	-0.004	-0.136***	0.349***	0.124***	-0.572***	-0.106***	1.000		
13 - Agriculture/Forestry/ Insurance	0.003	0.051***	0.039***	0.025**	0.016	0.010	0.085***	-0.062***	0.026**	-0.161***	-0.040***	-0.093***	1.000	
14 - Mining	-0.018	-0.009	-0.008	-0.008	0.001	0.000	0.044***	0.016	0.022*	-0.035***	-0.013	-0.023*	-0.008	1.000
15 - Finance/Banking/ Insurance	0.015	-0.057***	0.002	-0.041***	0.022	0.039***	0.028**	0.080***	-0.012	-0.087***	-0.024*	-0.029**	-0.014	-0.004

Source: PCI2013-2016 dataset, based on Author's Estimates, *** denotes significance at 1%, ** at 5%, * at 10%

Table 5. Estimated coefficients and average marginal effects from model of basic variables

	Estimated coefficients					Marginal effects				
VARIABLES	**Model 1**	**Model 2**	**Model 3**	**Model 4**	**Model 5**	**Model 1**	**Model 2**	**Model 3**	**Model 4**	**Model 5**
1 - Transparency	0.146	0.708***	0.551***	0.018	-0.078	0.019	0.092***	0.133***	0.004	-0.009
	(0.222)	(0.233)	(0.092)	(0.116)	(0.204)	(0.029)	(0.028)	(0.021)	(0.025)	(0.025)
2 - Proactivity	-0.0073	-0.207**	-0.277***	-0.002	-0.081	-0.001	-0.027**	-0.067***	-0.001	-0.010
	(0.123)	(0.085)	(0.097)	(0.061)	(0.098)	(0.016)	(0.011)	(0.023)	(0.013)	(0.012)
3 - RegulatoryQuality	0.037**	-0.012	0.038	-0.029	-0.038	0.005***	-0.002	0.009	-0.006	-0.005
	(0.016)	(0.043)	(0.024)	(0.027)	(0.039)	(0.002)	(0.006)	(0.007)	(0.006)	(0.005)
4 - Size	0.112***	-0.0002	0.0313	0.0718***	0.069*	0.0146***	-2.74e-05	0.009	0.0154***	0.00845*
	(0.029)	(0.0253)	(0.020)	(0.025)	(0.040)	(0.004)	(0.003)	(0.005)	(0.005)	(0.005)
5 - TimeInteract	0.192**	0.034	0.101**	0.072***	0.113***	0.025*	0.004	0.025**	0.015***	0.014***
	(0.095)	(0.038)	(0.046)	(0.023)	(0.028)	(0.013)	(0.005)	(0.011)	(0.005)	(0.00375)
6 - PredictableLaws	0.308***	-0.099**	0.248***	0.339***	0.310***	0.0402***	-0.013**	0.060***	0.073***	0.038***
	(0.060)	(0.045)	(0.042)	(0.036)	(0.033)	(0.009)	(0.006)	(0.010)	(0.008)	(0.005)
7 - NumberYear	-0.006	-0.0141**	-0.0128***	-0.006	0.009	-0.0009	-0.002*	-0.003***	-0.001	0.001
	(0.007)	(0.007)	(0.005)	(0.008)	(0.011)	(0.001)	(0.001)	(0.001)	(0.002)	(0.001)
8 - FiveMunicipalities	-0.387	0.019	-0.381**	0.007	-0.163	-0.050	0.003	-0.092**	0.002	-0.020
	(0.278)	(0.165)	(0.171)	(0.098)	(0.191)	(0.039)	(0.022)	(0.041)	(0.021)	(0.023)
Constant	-0.529	-4.829***	-3.121***	-2.071***	-2.172**					
	(1.312)	(1.345)	(0.732)	(0.629)	(0.970)					
Observations	4,144	4,144	4,144	4,144	4,144	4,144	4,144	4,144	4,144	4,144

Source: PCI2013-2016 dataset, based on Author's Estimates; Robust standard errors in parentheses; *** denotes significance at 1%, ** at 5%, * at 10%

Table 6. Estimated coefficients and average marginal effects from model including basic variables and control variables

	Estimated coefficients					Marginal effects				
VARIABLES	**Model 1**	**Model 2**	**Model 3**	**Model 4**	**Model 5**	**Model 1**	**Model 2**	**Model 3**	**Model 4**	**Model 5**
1- Transparency	0.155	0.722***	0.560***	0.039	-0.066	0.020	0.093***	0.135***	0.008	-0.008
	(0.218)	(0.248)	(0.097)	(0.112)	(0.199)	(0.029)	(0.030)	(0.022)	(0.024)	(0.024)
2 - Proactivity	-0.011	-0.209***	-0.280***	-0.001	-0.078	-0.001	-0.027**	-0.068***	-0.0002	-0.009
	(0.124)	(0.080)	(0.096)	(0.060)	(0.0977)	(0.016)	(0.011)	(0.023)	(0.013)	(0.012)
3 - RegulatoryQuality	0.040**	-0.005	0.037	-0.026	-0.033	0.005**	-0.001	0.009	-0.006	-0.004
	(0.017)	(0.042)	(0.026)	(0.028)	(0.040)	(0.002)	(0.005)	(0.006)	(0.006)	(0.005)
4 - Size	0.100***	-0.015	0.017	0.074***	0.072*	0.013***	-0.002	0.004	0.016***	0.009
	(0.026)	(0.027)	(0.017)	(0.024)	(0.042)	(0.003)	(0.003)	(0.004)	(0.005)	(0.005)
5 - TimeInteract	0.195**	0.043	0.104**	0.077***	0.118***	0.025*	0.006	0.025**	0.017***	0.014***
	(0.096)	(0.041)	(0.046)	(0.022)	(0.029)	(0.013)	(0.00532)	(0.011)	(0.005)	(0.004)
6 - PredictableLaws	0.315***	-0.099**	0.248***	0.334***	0.308***	0.041***	-0.013**	0.060***	0.072***	0.037***
	(0.062)	(0.047)	(0.042)	(0.036)	(0.035)	(0.010)	(0.006)	(0.010)	(0.008)	(0.005)
7 - NumberYear	-0.007	-0.014**	-0.014***	-0.003	0.011	-0.001	-0.002**	-0.0033***	-0.001	0.001
	(0.007)	(0.007)	(0.005)	(0.008)	(0.011)	(0.001)	(0.009)	(0.001)	(0.002)	(0.001)
8 - FiveMunicipalities	-0.327	0.107	-0.318*	0.0003	-0.170	-0.043	0.014	-0.077*	6.93e-05	-0.021
	(0.290)	(0.169)	(0.174)	(0.104)	(0.192)	(0.040)	(0.022)	(0.041)	(0.022)	(0.023)
9 - Ownership	-0.044	-0.339**	-0.045	-0.275**	-0.062	-0.006	-0.044**	-0.011	-0.059**	-0.008
	(0.085)	(0.149)	(0.101)	(0.130)	(0.141)	(0.011)	(0.020)	(0.025)	(0.028)	(0.017)
10 - Industry/Manufacturing	0.145	0.280	0.247**	0.335***	0.179*	0.019	0.036	0.060**	0.072***	0.022*
	(0.147)	(0.197)	(0.115)	(0.0828)	(0.103)	(0.019)	(0.024)	(0.028)	(0.017)	(0.012)

Table 6. Estimated coefficients and average marginal effects from model including basic variables and control variables *(continued)*

	Estimated coefficients					Marginal effects				
VARIABLES	**Model 1**	**Model 2**	**Model 3**	**Model 4**	**Model 5**	**Model 1**	**Model 2**	**Model 3**	**Model 4**	**Model 5**
11 - Construction/ Investment in Infrastructure Construction	0.080	0.364	0.0553	0.427***	0.354***	0.010	0.047	0.014	0.092***	0.043***
	(0.138)	(0.286)	(0.109)	(0.112)	(0.109)	(0.018)	(0.036)	(0.026)	(0.024)	(0.013)
12 - Service/Commerce	-0.030	0.023	0.015	0.356***	0.162**	-0.004	0.003	0.004	0.077***	0.020**
	(0.096)	(0.156)	(0.081)	(0.078)	(0.079)	(0.013)	(0.020)	(0.020)	(0.017)	(0.010)
13 - Agriculture/Forestry/ Insurance	0.189	0.345	0.269	0.187	-0.228	0.025	0.045	0.065	0.040	-0.0276
	(0.345)	(0.295)	(0.250)	(0.221)	(0.225)	(0.044)	(0.038)	(0.061)	(0.048)	(0.027)
14 - Mining	1.113*	0.334	-0.030	0.407	0.202	0.145**	0.043	-0.007	0.087	0.024
	(0.609)	(0.740)	(0.522)	(0.552)	(0.424)	(0.073)	(0.096)	(0.126)	(0.119)	(0.052)
15 - Finance/Banking/ Insurance	-0.753***	-1.043***	0.284*	0.044	-0.554	-0.098***	-0.135***	0.069*	0.009	-0.067
	(0.167)	(0.237)	(0.167)	(0.165)	(0.583)	(0.020)	(0.034)	(0.040)	(0.035)	(0.073)
Constant	-0.644	-5.082***	-3.278***	-2.537***	-2.450**					
	(1.260)	(1.553)	(0.722)	(0.649)	(0.961)					
Observations	4,144	4,144	4,144	4,144	4,144	4,144	4,144	4,144	4,144	4,144

Source: PCI2013-2016 dataset, based on Author's Estimates; Robust standard errors in parentheses; *** denotes significance at 1%, ** at 5%, * at 10%

The variable of the quantity of employees, Size, is highly statistically significant in Model 1, Model 4 and Model 5. From Table 7 and Table 8, there is an increase in both formal diplomacy and informal diplomacy when the number of employees increases, but with a size of an average 1000 people is about 10% more likely to have formal diplomacy than the size of an average 5 people, whilst there is a slight rise in informal diplomacy. Moreover, from the average marginal effects estimation results of Model 1, if we use the mean value of Size (4.065 in Table 3), then an increase of Size by 1 level will increase the probability of investors taking some actions to protect business by on average 1.46 percent.

Table 7. The average marginal effects of Size on FIFs formal behavior

	Delta-method					
	Margin	**Std. Err.**	**z**	**P>z**	**[95% Conf. Interval]**	
At						
less than 5	0.267	0.022	12.17		0.224	0.310
5 - 9 people	0.281	0.018	15.		0.246	0.317
10 - 49 people	0.296	0.014	20.91	0	0.26	0.324
50 – 199 people	0.311	0.011	29.08	0	0.290	0.332
200 - 299 people	0.327	0.009	37.03	0	0.31	0.344
300 - 499 people	0.343	0.010	34.33	0	0.323	0.363
500 - 1000 people	0.359	0.014	26.16	0	0.33	0.386
more than 1000 people	0.376	0.019	20.04	0	0.339	0.413

Source: PCI2013-2016 dataset, based on Author's Estimate

Table 8. The average marginal effects of Size on FIFs informal behavior

	Delta-method					
	Margin	**Std. Err.**	**z**	**P>z**	**[95% Conf. Interval]**	
At						
less than 5	0.117	0.012	9.64	0	0.093	0.141
5 - 9 people	0.125	0.009	13.33	0	0.10	0.143
10 - 49 people	0.132	0.007	17.99	0	0.118	0.147
50 - 199 people	0.141	0.008	18.25	0	0.	0.156
200 - 299 people	0.149	0.011	13.83	0	0.	0.170
300 - 499 people	0.158	0.016	10.19	0	0.12	0.189
500 - 1000 people	0.168	0.021	7.9	0	0.126	0.209
more than 1000 people	0.178	0.028	6.42	0	0.123	0.232

Source: PCI2013-2016 dataset, based on Author's Estimate

Two variables which are TimeInteract and PredictableLaws are highly significantly positive in almost models 1 - 5. In Model 1 of Table 5, the TimeInteract variable is positive and statistically significant (0.192, $p < .01$) at the 5% significance level, suggesting that the more

time to interact with government officers, the more they want to act in order to ensure their business when the policy changes adversely. Model 4 and Model 5 respectively are models that are paid higher attention to whether FIFs employ formal or informal diplomacy when the government changes policy adversely. In these two models, it can be shown that the more the time interacting with government officials and the stronger the predictability of policy changes are, the more likely it is that investors tend to employ both formal and informal diplomacy. Particularly, as for Table 9 and Table 10, the more time per year spent interacting with government officers is, the more likely FIFs employ formal diplomacy than they employ informal diplomacy (12.7 - 20.4% compared to 29.6 - 37.6%).

Table 9. The average marginal effects of TimeInteract on FIFs formal behavior

	Delta-method					
	Margin	**Std. Err.**	**z**	**P>z**	**[95% Conf. Interval]**	
At						
less than 1%	0.296	0.010	28.95	0	0.27	0.316
1 - 5%	0.311	0.010	30.		0.291	0.331
5 - 10%	0.327	0.012	26.35	0	0.30	0.351
10 - 15%	0.343	0.016	21.20	0	0.	0.374
15 - 50%	0.359	0.021	17.25	0	0.	0.400
over 50%	0.376	0.026	14.46	0	0.32	0.427

Source: PCI2013-2016 dataset, based on Author's Estimate

Table 10. The average marginal effects of TimeInteract on FIFs informal behavior

	Delta-method					
	Margin	**Std. Err.**	**z**	**P>z**	**[95% Conf. Interval]**	
At						
less than 1%	0.127	0.006	20.		0.114	0.139
1 - 5%	0.140	0.008	18.27	0	0.12	0.155
5 - 10%	0.154	0.010	14.75	0	0.13	0.174
10 - 15%	0.169	0.014	11.83	0	0.141	0.197
15 - 50%	0.186	0.019	9.76	0	0.148	0.223
over 50%	0.204	0.025	8.30	0	0.156	0.25

Source: PCI2013-2016 dataset, based on Author's Estimate

As for marginal effect coefficients, the PredictableLaws variable is the top positive effect in each model, which shows that prediction capacity about harmful policy changes plays most heavily on the decision employing diplomacy. With regards to Table 11 and Table 12, we see that there is a stronger increase in the probability of employing formal diplomacy (22.5 - 52.9%) than that of employing informal diplomacy (9.8 – 27.3%) when the likelihood of predicting harmful policy changes rises.

Table11. The average marginal effects of PredictableLaws on FIFs formal behavior

	Delta-method					
	Margin	**Std. Err.**	**z**	**P>z**	**[95% Conf. Interval]**	
At						
Never	0.225	0.013	16		0.198	0.251
Seldom	0.289	0.011	26.61	0	0.26	0.310
Sometimes	0.363	0.011	32.93	0	0.342	0.385
Usually	0.445	0.016	27.26	0	0.413	0.477
Always	0.529	0.024	22.31	0	0.483	0.576

Source: PCI2013-2016 dataset, based on Author's Estimate

Table11. The average marginal effects of PredictableLaws on FIFs informal behavior

	Delta-method					
	Margin	**Std. Err.**	**z**	**P>z**	**[95% Conf. Interval]**	
At						
Never	0.098	0.007	14.63	0	0.0	0.111
Seldom	0.129	0.007	17.56	0	0.	0.144
Sometimes	0.168	0.010	17.04	0	0.149	0.188
Usually	0.216	0.015	14.40	0	0.	0.246
Always	0.273	0.023	12.		0.229	0.317

Source: PCI2013-2016 dataset, based on Author's Estimate

The FiveMunicipalities variable is only significantly negative in Model 3. That means FIFs located in the five municipalities under the central government tend not to coordinate with other businesses when they believe a policy change may harm their business. There is not enough evidence to infer the other models.

For Table 6, since the results of the variables which are commonly used in Table 5 are consistent, we limit ourselves to interpreting the results for the added variables. Adding more control variables (Ownership and six business fields), we find out that the tendency of choosing formal diplomacy of Vietnamese leaders is less than that of foreign leaders (because the coefficient of Ownership is -0.275, $p < .05$ and the marginal coefficient is -0.059, $p < .05$). Ownership, however, is not statistically significant in model 5, there is no evidence to infer that informal diplomacy depends on whether the leader is Vietnamese or not. For the control variables of fields, there is a tendency to increase both formal and informal diplomacy in the following sectors: Industry/Manufacturing, Construction/ Investment in Infrastructure Construction and Service/Commerce.

In short, options of the FIFs highly depend on the ability to predict policy changes in laws. Whether FIFs move their production to another country or plan to coordinate action with other businesses depends on Transparency, Proactivity and time from the establishment. The decision to employ diplomacy depends on the number of employees, the time interacting with government

officials, and the prediction capacity about harmful policy changes. Our results suggested that the FIFs are more likely to employ diplomatic behavior if the number of employees, time per year spent interacting with government officers and predictions about the changes in laws increase. It is more likely to employ formal diplomacy than informal diplomacy in the case of FIFs' size expanding. This is true when increasing the capability of predicting harmful policy changes. Further, we find that the tendency of choosing formal diplomacy of foreign leaders is higher than that of Vietnamese leaders. The results also show that if the FIFs are from countries having a good institutional quality, they are more likely to employ some actions in order to change policies when they believe a policy change may harm their business. Furthermore, diplomatic behaviors are more likely to be employed by FIFs in the fields: (1) Industry/Manufacturing (2) Construction/ Investment in Infrastructure Construction and Service/Commerce.

5. Conclusion

This is a new study that assesses FIFs responses, including moving out the company, applying investment links, or mobilizing diplomacy to deal with policy changes. The estimation result shows that all their behaviors are strongly dependent on how predictable changes in laws are. Those changes directly affect FIFs business activities, so policy makers need to make a stable long-term plan in favor of enterprise investment. On the other hand, when changes are inevitable, promoting firm participation in policy development would help firms predict the changes better and have better compliances.

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