



THE VIET NAM PROVINCIAL  
**COMPETITIVENESS  
INDEX**

**PCI  
2016**

*Measuring economic governance  
for business development*



**USAID**  
FROM THE AMERICAN PEOPLE





*The painting “Spring” by Vietnamese abstract artist Pham An Hai was chosen by the PCI team for the design of the cover of the PCI report and its contents. The spring season begins the cycle of new growth in nature and is a symbol of renewal and rejuvenation. The beauty of spring stimulates excitement and creativity. The central government and sub-national governments have kicked off the first year of their new term with a great deal of excitement. The business community is looking forward to rapid and far-reaching reforms, which will lead to the fruit of future prosperity based on the continued and sustained efforts that are made today.*



**THE VIET NAM PROVINCIAL  
COMPETITIVENESS INDEX 2016**

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# FOREWORD

We are honored to present this year's Provincial Competitiveness Index 2016, which aims to improve Viet Nam's business enabling environment to facilitate greater investment and economic growth.

Over the years, the PCI has become a trusted report for policy makers and businesses. The report assesses provincial level reforms in ten key areas that encourage transparency and streamlining of business regulations. The importance of these reforms are now widely recognized. Since 2014, provinces have been required under the different versions of Resolution 19 to show progress in these areas. Indeed, we are pleased that the number of provinces that have adopted action plans to improve their PCI performance has increased substantially in recent years. There is a great deal of creativity among the top reforming provinces to improve the business environment. At the same time, one of the most positive developments in this year's report is that provinces near the bottom have also generally shown improvements.

We are encouraged by the optimism found in this year's report. Nearly half of the domestic firms surveyed expect to expand their businesses in the next two years. Similarly, over half of the businesses with foreign investment have expressed that they intend to increase the size of their operations, the highest figure recorded since 2010. This optimism is particularly encouraging, given some of the major changes that have taken in the international arena over the past year, which has created some uncertainty for Viet Nam's economy. It appears that many of the important economic reforms in previous years, such as the Investment Law of 2014 and the Enterprise Law of 2014, are starting to have a real impact (for example, business entry costs have gone down substantially). We hope that these changes will continue to stimulate further reforms in more difficult areas.

Beyond the rankings, this year's report strives to be responsive to the needs of businesses and policymakers. This year's special theme concerns businesses' views of environmental regulations, which is an area that has become increasingly important to all parties. We believe that these findings are timely and very informative and will help shape policy discussions related to environmental regulation in Viet Nam in the coming years.

We trust that you will enjoy reading this year's Provincial Competitiveness Index 2016 report.

**Vu Tien Loc, Ph.D.**



Chairman and President  
Viet Nam Chamber of Commerce and Industry

**Michael Greene**



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# ABBREVIATIONS AND ACRONYMS

APEC	Asia-Pacific Economic Cooperation
ASEAN	Association of Southeast Asian Nations
CI	Confidence Interval
CIT	Corporate Income Tax
DONRE	Department of Natural Resources and Environment
DPI	Department of Planning and Investment
FDI	Foreign Direct Investment
FIE	Foreign Invested Enterprise
GSO	General Statistics Office
GDT	General Department of Taxation
HCMC	Ho Chi Minh City
HR	Human Resources
IPA	Investment Promotion Agency
ISIC	Industrial Classification Codes
IZ	Industrial Zones
JV	Joint Venture
LURC	Land Use Rights Certificate
MPI	Ministry of Planning and Investment
OECD	Organization for Economic Cooperation and Development
OSS	One-Stop-Shop
PCI	Provincial Competitiveness Index
SMEs	Small and Medium Sized Enterprises
SOEs	State-owned Enterprises
TBT	Technical Barriers to Trade

TI	Transparency International
UCT	Unmatched Count Technique
USA	United States of America
USAID	United States Agency for International Development
VAT	Value Added Tax
VCCI	Viet Nam Chamber of Commerce and Industry





# EXECUTIVE SUMMARY

## **SUMMARY OF CHAPTER 1: THE DOMESTIC PRIVATE SECTOR SURVEY AND THE 2016 PCI**

*The 12<sup>th</sup> Provincial Competitiveness Index (PCI):* The PCI is designed to assess the ease of doing business, economic governance, and administrative reform efforts by Viet Nam provincial and city governments in order to promote private sector development. The 2016 PCI is the 12th iteration of the report. The report is based on a rigorous survey of the perceptions of domestic firms. The PCI augments the collective voice of private entrepreneurs in Viet Nam regarding economic governance in their province and the country.

*What Does the PCI Measure?* The overall PCI index score comprises ten sub-indices reflecting economic governance areas that affect private sector development. A province that is considered to perform well on the PCI is the one that has: 1) low entry costs for business start-up; 2) easy access to land and security of business premises; 3) a transparent business environment and equitable business information; 4) minimal informal charges; 5) limited time requirements for bureaucratic procedures and inspections; 6) minimal crowding out of private activity from policy biases toward state, foreign, or connected firms; 7) proactive and creative provincial leadership in solving problems for enterprises; 8) developed and high-quality business support services; 9) sound labor training policies; and 10) fair and effective legal procedures for dispute resolution.

*Brief Methodology:* The PCI is constructed in a three-step sequence, referred to as the “three Cs”: 1) collect business survey data and published data sources, 2) calculate ten sub-indices and standardize them on a 10-point scale, and 3) calibrate the composite PCI as the weighted mean of ten sub-indices with a maximum score of 100 points.

*Sampling:* Firms are selected using random sampling to mirror provincial populations. Stratification is used to make sure that firm age, legal type, and sector are accurately represented.

*Sample Size:* 10,037 domestic private firms, including 2,042 newly established enterprises in 2015 and 2016, answered the 2016 PCI survey, showing growing support for and confidence in the PCI.

### **Brighter Business Prospects in 2016**

*Rising Growth:* The PCI 2016 survey continued to reveal signs of a positive business environment. Over the past year, 65 percent of private enterprises reported profits,

the highest level in 5 years. Average capital size of enterprises has reached a new peak of 18.1 billion Vietnamese Dong (\$797,000), twice the size recorded in 2006. The percentage of firms that hired more workers also increased from 12 percent in 2015 to 13 percent in 2016.

*Steady Business Confidence:* In 2016, nearly half the firms (48 percent) expected to expand their businesses in the next two years, roughly equivalent to 2015 level (49 percent).

### **The 2016 Provincial Competitiveness Index (PCI)**

*The Median PCI Score remains stable:* This year, the PCI score of the median province was 58 points, statistically equivalent to 2014 and 2015. Compared with previous years, the score gap between the provinces narrowed to 17 points, smaller than the gap of 19 points in 2015. This trend of increasing convergence was driven by impressive efforts by provinces in the bottom portion of the PCI score distribution to emulate best practices for improving their business environments. Provinces in the upper half of the PCI rankings, however, faced the greater challenge of innovating new governance breakthroughs to promote administrative efficiency and economic development.

*Da Nang Again Tops the Rankings:* This year, Da Nang continued its run at the top of the ranking of the 63 provinces and cities of Viet Nam. This is the fourth consecutive year, and the seventh in the 12 years since the first PCI survey, that this city is honored by the business community as the PCI champion.

*Other Excellent Provinces:* The PCI 2016 ranking also witnessed the exchange of places of Quang Ninh and Dong Thap. Quang Ninh climbed to second place, its highest position ever in PCI history. Dong Thap slipped to third, but maintained its status as one of the top performing locations in the country. The biggest surprise we found in this year's PCI ranking is Binh Duong's spectacular return to the top five group after many years stuck in the Mid-High performance tier. The provinces of Vinh Long, Thai Nguyen, Ho Chi Minh City, Vinh Phuc and Quang Nam rounded out the top 10 best performing provinces and cities.

It is also notable that there was a pronounced improvement in the scores of all five centrally-run cities. Ha Noi and Hai Phong outdid themselves to score over 60 points for the first time ever, finding their way to the High tier, in 14<sup>th</sup> and 21<sup>st</sup> place respectively, out of 63 provinces and cities. Can Tho scored 61.14 points, ranking 11<sup>th</sup>.

## Changes in Provincial Governance over the 2006-2016 Period

*Specific Policy Improvements:* From 2006 to 2016, the most significant improvements were again observed in the area of Entry Costs, followed by Proactivity, Labor Training, and Business Support Services. Specific policy advances include:

- **Entry:** Shorter waiting periods for businesses to be fully operational with median registration wait times dropping to a new low of 7 days compared to 20 days in 2006. The percentage of businesses that had to wait more than one month to be legally recognized fell from 26 percent to 13 percent.
- **Labor Training:** After significant drops in 2008, the level of satisfaction with the quality of labor training grew gradually. In 2016, 47 percent of firms were satisfied with the quality of general education in the province (compared to 35 percent in 2008). At the same time, 33 percent said they were satisfied with the quality of vocational training (compared to 19.8 percent in 2008).
- **Proactivity:** Three indicators assessing the proactivity of provincial leaders experienced positive changes. In 2016, firms' perception of the proactivity and creativity of local authorities improved from 47 percent in 2011 to 57 percent in 2016. Currently, 70.5 percent of businesses in the median province believe their provincial leadership is flexible, 10 percentage points higher than the low recorded in 2011. The percentage of firms who agreed that "the provincial government has a positive attitude towards the private sector" was up nine percentage points (44 percent), following a record 2015 low point of 35 percent.
- **Business Support Services:** Time series analysis of changes shows that business support services, including market information search, legal consultancy, and business matchmaking services have gradually improved in both quality and quantity. However, the analysis suggests that provincial policy support should be provided to three types of services (legal advice, trade promotion and technological services) in order to encourage greater use by private sector firms.

**Governance Areas in Need of Improvement:** The PCI 2016 survey showed worrisome stagnation in the following areas:

- **Transparency:** Access to provincial planning documents, such as land use maps and infrastructure maps, and legal documents came in at lower point in 2016 (2.39 points and 3.10 points, respectively) than at the start of the PCI in 2006 (2.63 points and 3.15 points, respectively). It appears that personal relationships with public officials continue to play an important role for whether businesses can access important information and documents. In 2016, 66 percent of

enterprises in the median province claimed that they had to use connections to obtain access to information, more than 16 percentage points higher than the record lows in 2008.

- **Informal Charges:** The informal charges in the 2014-2016 period saw no signs of improvement compared with the 2006 baseline. In 2016, about 66 percent of businesses in the median province had to offer a bribe or make informal payments to public officials, which was 12-15 percentage points higher than in the 2008-2013 period. Eleven percent of firms in the median province claimed that such informal payments represent more than 10 percent of their total revenue, a sizeable financial burden for any business.
- **Transaction Costs:** The time costs of regulatory compliance hit a record low in the core index score in 2016. For the three consecutive years (2014-2016), one in every three enterprises in the median province had to spend more than 10 percent of its time on compliance with administrative procedures, a record high rate in the history of the PCI survey. For the 2006-2013 period, this rate was only one in five or sometimes one in ten (2011). This year, the median firm experienced only one [tax] inspection, though the time spent for each inspection visit increased to 8 hours. Post-registration regulatory burden increased with firms documenting more paperwork, more offices to visit, lower quality civil servants, and less professional receptions.
- **Land Access:** The sub-index plunged for the third straight year after steady improvements between 2008 and 2013. The median firm claimed in 2016 that its risk of land appropriation by local authorities was at a record high (1.73 points). Only 25 percent of firms at the median believed that they would be adequately compensated, down sharply from previous years.
- **Policy Bias:** The core PCI survey results over the 2006-2016 period reveal a playing field that is not level for enterprises in the provinces and cities of Viet Nam. Small- and medium-sized private firms (SMEs) remain the most disadvantaged group. In the median province this year, more than 38 percent of businesses claimed that “the favoritism of provincial authorities towards state owned enterprises caused difficulties to their firm’s business operation,” a statistically significant increase of 6 percent compared to 2013. More than 42 percent of businesses agreed with the statement “the provincial authorities seem to prioritize FDI attraction to domestic private sector development,” up 14 percent from 2013.
- **Legal Institutions:** The sub-index leveled off during the three most recent years. The 2016 PCI survey does not reflect any substantial improvements in the percentage of firms saying that “if a state official breaks the law, the legal system

will provide a mechanism to report the behaviors of that official.” Similarly, the number of firms expressing confidence that the enforcement system is able to uphold contracts and property rights in business disputes in the past four years is higher than the figure of 62-69 percent in the previous eight years, but remained around 81 percent.

### **The 2016 PCI Infrastructure Index**

*Method:* The Infrastructure Index ranks provinces along four dimensions: 1) industrial zone availability and quality; 2) road quality; 3) utility costs and stability; and 4) information and communications technology.

*Performance:* In 2016, Binh Duong, Da Nang, Ba Ria Vung Tau, Dong Nai, and Vinh Phuc were the five provinces that were rated as having the best infrastructure.

In 2016, 77 percent of businesses in the median province rated the quality of telephone service as good or very good, the highest level of satisfaction among firms in the survey. The power supply ranked second with 69 percent of the firms being satisfied. Water (63 percent) and internet services (57 percent) took third and fourth places, respectively. Finally, only 42 percent of businesses on average expressed their satisfaction with the quality of roads and bridges.

### **Governance Quality and Economic Performance**

We find strong evidence that improvements in governance are associated with growth of the private sector. In particular, a one point improvement in the PCI is associated with short term growth in new enterprise registrations of 2.7 percent. The benefits of governance also accumulate over time. Governance improvements today are associated with a 3 percent increase in additional enterprises over the next ten years.

Provinces wishing to improve economic performance in the short term should focus on improving land access and labor training as well as lowering informal charges. They should also work to reduce the prevalence of bias toward state owned enterprises and make a concerted effort to improve transparency. A one point improvement on the Land Access or Labor training sub-index, for instance, is associated with nearly a 12 percent increase in the number of new enterprises. Long-term multipliers are particularly large for land titles (0.15) and reducing bias toward SOEs (0.12). One point improvements on these indices today could generate as much as a 15 percent increase in the number of new business entrants over the next ten years.

In short, improving economic governance toward a business-friendly and enabling environment is worth the effort in both the near- and long-term, especially provinces with poor endowments of infrastructure and proximity to major markets.

## **SUMMARY AND KEY FINDINGS FROM CHAPTER 2: THE FOREIGN INVESTMENT SURVEY**

The 2016 PCI-FDI survey offers good news. Legal changes over the past two years have created a hospitable environment for foreign direct investors. These reforms are already bearing fruit in the form of increased optimism among foreign investors and evidence of greater expansion. Although it is early, reductions in business entry costs and petty bribery also appear to be taking place. In these areas, the grandiose prognostications of investment analysts appear to be correct. Investors seeking to enter Viet Nam over the next two years will face a far more hospitable climate than their predecessors. At the same time, more work clearly remains for Viet Nam to reach its true investment potential. Foreign investors still believe that the policy environment is biased in favor of SOEs, and access to budget and planning information remains challenging. Furthermore, post-entry regulation in Viet Nam is burdensome, especially for a few firms that experience extraordinary harassment from inspectors.

*Respondents to Foreign Direct Investment (FDI) Survey.* The PCI-FDI survey covers a highly representative selection of 1,550 businesses from 46 countries whose operations are located in the 14 most economically developed provinces.

*Optimism Among Foreign-Invested Enterprises (FIEs) Continues.* Eleven percent of FIEs increased their investments in existing operations and 63 percent added new employees to their payrolls. The employment increase is the largest recorded in the PCI-FDI survey in five years.

*Better News on the Horizon.* Looking ahead to the next two years, according to the Business Thermometer, a question gauging prospective expansion plans, optimism appears to be rising rapidly. Just over half of the businesses in the PCI-FDI sample intend to increase the size of their operations - the highest share recorded since 2010.

*Characteristics of FIEs:* As we have reported in previous years, the typical FIE in Viet Nam remains relatively small, export-oriented, and operates a low-margin business that is subcontracting to a larger multinational producer—and is therefore usually situated among the lowest nodes of a product's value chain. Reflecting the data on registered FDI, the vast majority of firms are from Asia, particularly, Japan, Korea, Taiwan-China, Singapore, and China.

*Entry Regulations:* The 2014 Enterprise Law and 2014 Investment Law along with their implementing documents have remarkably reduced entry costs.

- Over 90 percent of foreign firms were able to obtain all the documentation they needed to operate legally within three months of starting the procedures. Forty percent of firms were fully legal within a month
- This is the highest share achieved in Viet Nam, up dramatically from the five previous years.

*Post-Entry Regulations:* More work is necessary to address business concerns associated with regulations that affect businesses after start-up.

- About 72 percent of firms answered that they spend over 5 percent of their time on regulatory procedures, which means time away from managing and growing their business. This figure is markedly higher than the historical low of 56 percent achieved in 2010.
- While median inspections are quite low by international standards, nearly 5 percent of FIEs report undue harassment with over eight inspections per year.
- According to foreign firms, the most problematic procedures relate to taxes (including the handling of VAT receipts), social insurance (required in the 2014 Law on Social Insurance), and customs procedures.
  - Positive signs are appearing on the horizon, however. The share of firms selecting all of these procedures has declined since 2015.
  - These improvements represent efforts made in accordance with Resolution 19/NQ-CP/2015 to simplify and streamline administrative procedures. This is especially true of customs obligations, a focus area of the resolution.

*Bias in favor of State Owned Enterprises:* The share has dropped marginally since 2014, but roughly 68 percent of foreign firms continue to believe that there is an unfair preference toward state owned enterprises.

*Access to Information:* Access to critical information to run a business, especially local budgets and planning documents, actually appears to be worsening over time. FIEs report more difficulty acquiring information, greater dependence on personal relationships and connections to obtain it, and lower quality information when they do find it.

*Experience with Corruption:* Some forms of petty corruption appear to be declining for foreign firms.

- Twenty-five percent of FIEs admit that they paid bribes when they attempted to acquire their investment licenses, and 13.6 percent paid bribes when competing for government contracts. Both of these numbers represent declines from 2015.
- Forty-nine percent of operations paid bribes during customs procedures, 10 percentage points below 2015.
- Fifty-six percent of businesses answered that regulations were merely an excuse for bureaucrats to ask for bribes, 10 percentage points lower than in 2015.
- Nineteen percent of businesses chose to avoid the Vietnamese court system during disputes in 2016 because they were concerned about bribery during the process. Again, these figures demonstrate significant declines over the past two years.

However, survey results show that systematic corruption remains a problem in other areas.

- Eighty-eight percent of firms agreed that they were disadvantaged in some way during government procurement, indicating that a culture of commissions in contracting may be impeding the best selection of service providers. This in turn leads to higher costs and lower quality compared with optimal selections.
- Forty-five percent of firms paid a bribe during an administrative inspection in 2016. In cases where a bribe was paid, firms reported that the inspector made the request only 8 percent of the time. It was five times as likely that the manager himself offered the bribe (44 percent). The largest category was comprised of firms that believe bribery is common practice and offered payment without ever being asked (59 percent).
- Nearly 80 percent of bribe paying respondents report that the main benefit was establishing a relationship. They see the bribe payment as an insurance contract, whereby a small gift to a regulator today may help them with future exigencies.
- The prevalence of these activities indicates the systematic nature of corruption in Viet Nam, illustrating how difficult the activity is to uproot. Bribery has become so common that words do not even need to be exchanged between the two parties.

## **SUMMARY AND KEY FINDINGS FROM CHAPTER 3: BUSINESS AWARENESS OF ENVIRONMENTAL CONCERNS**

In the wake of a series of damaging environmental challenges in the country, this chapter asked foreign and domestic firms to reflect upon how pollution affects their business activities.

We find that a large number of firms (50 percent of foreign enterprises and 45 percent of domestic enterprises) believe that environmental health is important and are willing to pay reasonable costs in terms of their own operations. They are willing to accept additional regulation to avoid damaging pollution. Firms in agriculture, aquaculture, finance, and the growing service sector are particularly robust in these beliefs. They report damages to their economic performance resulting from declining environmental quality.

We also find that a large number of firms have tried to combat pollution in their own businesses through self-regulation and training of employees. Seventy-five percent of foreign firms and 73 percent of domestic enterprises have some forms of Green Policy for employees. They also report reasonably high levels of compliance with provincial regulations, but also a willingness to pursue environmental protection beyond those strictures.

As a result of the Formosa Steel Company pollution event, firms also appear to be more tolerant and accepting of provincial efforts to regulate the environment, even with the understanding that it may cause some injury to their business prospects (95 percent of foreign firms and 91 percent of domestic firms agreed). They also tend to be more supportive of increased self-regulation (97 percent foreign firms and 96 percent domestic firms).

The clear message of this chapter is that the characterization of a single, dichotomous, choice between business growth and environmental health is a false one. A substantial portion of the business community benefits from a green Viet Nam and is supportive of efforts to keep it that way.



2016





# SURVEY OF DOMESTIC ENTERPRISES AND THE 2016 PROVINCIAL COMPETITIVENESS INDEX

Viet Nam's economy faced considerable challenges during 2016. On the domestic front, the country had to endure the worst drought in a century in the Mekong region. Serious environmental incidents in four central coastal provinces adversely affected people's lives, economic productivity, and activities.<sup>1</sup> Internationally, the world's economy recovered slowly with a marked reduction in global trade growth. In addition, major political changes in the international arena, including "Brexit" accompanied a rising trend of protectionism. Together, these events posed major challenges to Viet Nam's economy that relies heavily on international trade.<sup>2</sup>

In this volatile context, Viet Nam successfully maintained macroeconomic stability with a GDP growth rate around 6.2 percent, and kept its inflation under control.<sup>3</sup> With its strong messages of promoting "entrepreneurship" and "a strong enabling government"

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<sup>1</sup> General Statistics Office 2016

<sup>2</sup> Electronic People Newspaper 2016

<sup>3</sup> General Statistics Office 2016

in 2016, Viet Nam has seen a record high level of 110,100 new start-up businesses, with nearly 1.3 million new jobs created. Business failures also declined. About 73,145 businesses ceased operations, fewer than the 80,828 that folded in 2015.<sup>4</sup>

Despite the unfavorable global conditions, positive signs of the business environment in Viet Nam were recorded by the Provincial Competitiveness Index (PCI) 2016 survey. Over the past year, 65 percent of private enterprises reported profits, the highest level in 5 years. Twenty-three percent of businesses recorded losses, nevertheless an improvement over a record high in 2014, when 26 percent reported being in the red. For the first time in 12 years, the average capital size of enterprises has risen to the highest level of 18.1 billion Vietnamese Dong (\$797,000), twice the size recorded in 2006 (7.5 billion Vietnamese Dong, or about \$330,000). The percentage of firms that hired more workers also increased from 12 percent (in 2015) to 13 percent (in 2016).

**Table 1.1: Performance of Domestic, Private Firms over Time**

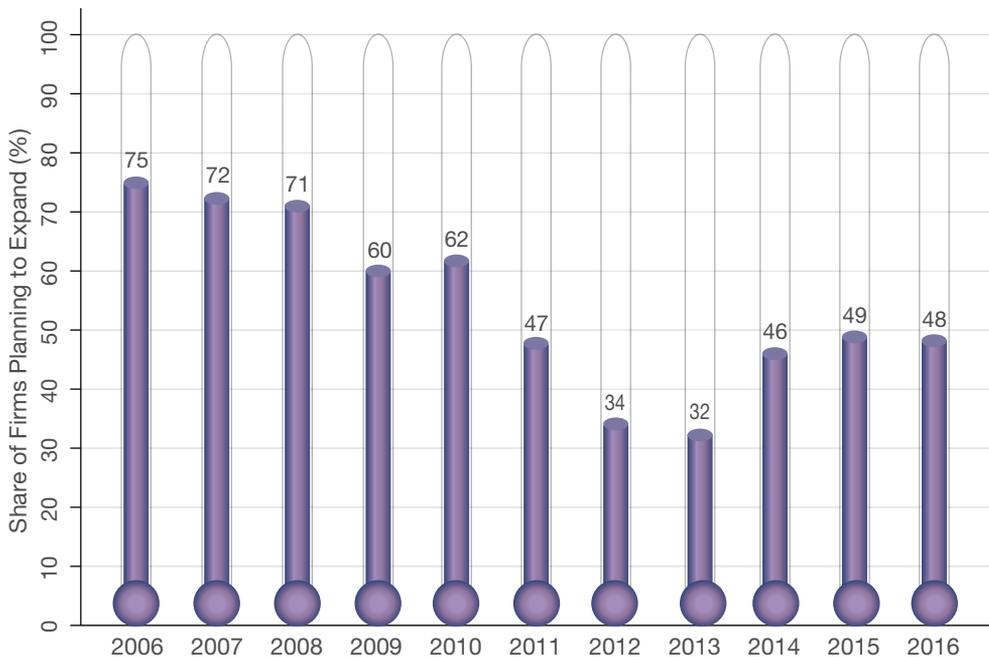
Year	Firms Increasing Investment (%)	Average Investment Size (Billion VND)	Firm Adding Employees (%)	Average Size (Employees)	Firms Reporting Profits (%)	Firms Reporting Losses (%)
2006	27.6	7.3	22.0	31.6	77.5	10.8
2007	27.1	8.1	20.9	33.2	81.1	9.3
2008	29.3	10.2	21.6	40.6	82.3	8.7
2009	15.4	12.0	12.3	45.9	69.2	19.9
2010	22.1	12.8	17.1	47.6	74.9	16.0
2011	14.1	12.2	11.2	45.4	72.9	14.4
2012	6.4	11.1	6.0	26.3	58.9	21.9
2013	6.4	14.9	6.2	28.9	64.3	20.8
2014	10.8	15.1	11.5	26.8	60.3	26.4
2015	10.9	16.5	12.0	26.6	63.1	24.1
2016	11.0	18.1	13.0	26.6	65.0	23.0

The level of optimism and confidence among the business community about their economic prospects has been steadily recovering since 2013. Forty-eight percent of PCI 2016 survey respondents said that they planned to increase the size of their

<sup>4</sup> Business Registration Agency, *Business Survey in the 2011-2016 Period*.

operations over the next two years, nearly equivalent to last year’s level (see Figure 1.1). The percentage of enterprises that said they would continue operations at their present size was 44.5 percent, while the number of firms planning on scaling down or closing the business made up less than 7 percent. Optimism about the prospects for growth are even more pronounced among Foreign Invested Enterprises (FIEs). This year, just over 50 percent of FIEs plan to expand the size of their operations in Viet Nam, similar to the preceding two years and a significant increase compared to the 2012-2013 low.<sup>5</sup>

**Figure 1.1: PCI Business Thermometer over Time**



## 1.1. THE 2016 PCI SURVEY METHODOLOGY

The 2016 PCI continues to be a trusted voice of the business community that jointly reflects its assessment about governance quality as well as business conditions in 63 provinces and cities across Viet Nam. It has been twelve years since the Viet Nam Chamber of Commerce and Industry (VCCI), in collaboration with the United States Agency for International Development (USAID), first conducted the PCI survey. Over

<sup>5</sup> See Figure 2.1 in Chapter 2 - The Foreign Investment Survey

this time, support for and confidence in the survey has grown, reflected by the increasing responsiveness of firms. The number of private enterprises participating in this year’s survey again surpassed 10,000 enterprises. Specifically, 10,037 domestic private firms, including 2,042 newly established enterprises (those having registered in 2015 and 2016), answered the 2016 PCI survey, sharing their experiences in dealing with administrative procedures as well as expressing their perceptions of economic governance quality and the effectiveness of the local government bodies with which they worked. For the foreign investment survey, the number of responding firms was 1,550.

### 12 Years of PCI 2005 - 2016

**93,378**

Domestic private firms

**10,933**

Foreign invested enterprises responded since 2005



1 out of 5 operating firms has responded to PCI survey

### Number of Respondents over Time





It should be noted that 2016 will be the last year of the four-year cycle in which the PCI methodology remains unchanged. Starting in 2017, broad adjustments and updates will be made to the PCI construction, including the addition of new indicators, and the removal of indicators that are no longer appropriate. The goal will be to provide the most accurate reflection of the latest changes in Viet Nam's provincial business environment and better convey the needs and aspirations of the private business community to the provincial governments. The PCI research team has engaged in preparatory work for this task since mid-2016. We sent out survey questionnaires seeking the advice of experts from research institutes, universities, ministries and particularly provincial and municipal governments. The responses we have received so far are extremely helpful. Knowledgeable policy-makers, researchers and entrepreneurs have offered insights based on their expertise and experience, and provided useful information on how the index needs to be adjusted to reflect changes in the Vietnamese economy from 2017 onward.

## **1.2. THE 2016 PROVINCIAL COMPETITIVENESS INDEX**

Figure 1.3 presents the composite PCI 2016 ranking. Taken as a whole, we can see quite a few interesting developments in this year's results. The five provinces listed among the top five best performers in PCI 2016 are Da Nang (70 points), Quang Ninh (65.6 points), Dong Thap (64.96 points), Binh Duong (63.57 points) and Lao Cai (62.76 points), respectively.

**Figure 1.3: The 2016 Provincial Competitiveness Index**

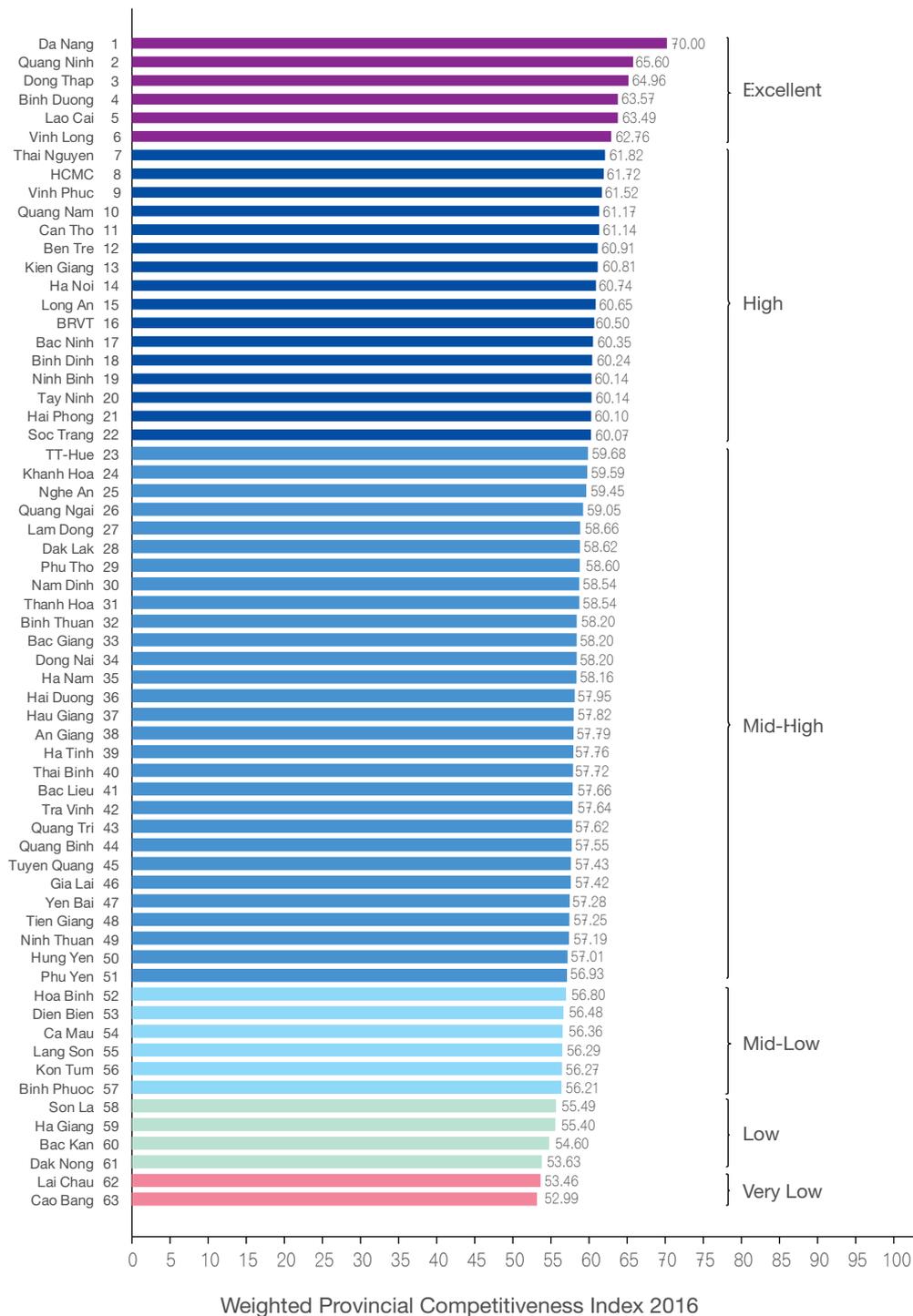
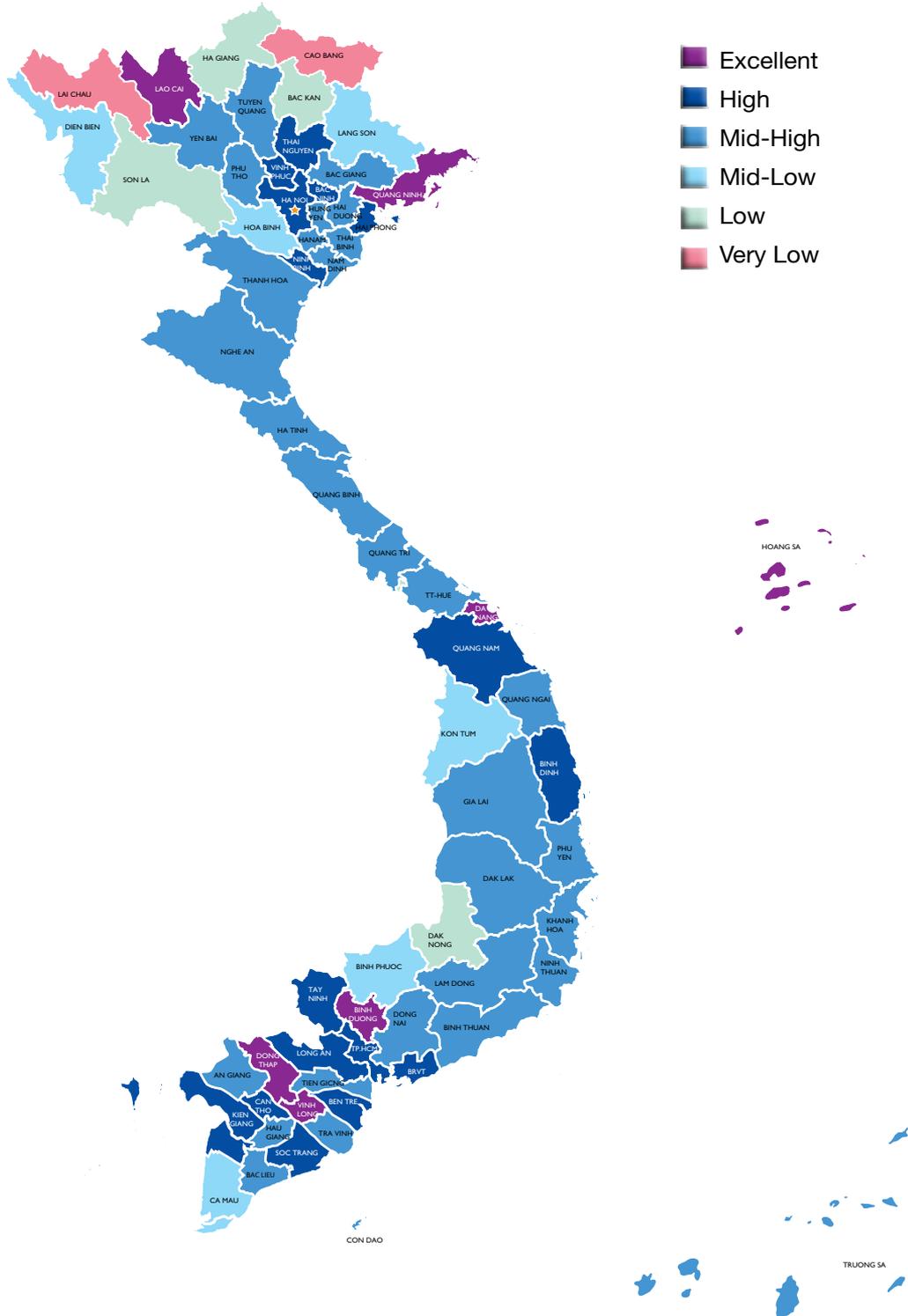


Figure 1.4: The PCI 2016 Map



This year, Da Nang continued its run at the top of the ranking of the 63 provinces and cities of Viet Nam. This is the fourth consecutive year, and the seventh in the 12 years since the first PCI survey, that this city is honored by the business community as the PCI champion. Da Nang's score also broke the threshold of 70 points, the first time since 2010 that a province has achieved this level of performance.

The PCI 2016 ranking also witnessed the switch in places of Quang Ninh and Dong Thap. Quang Ninh climbed up to second place, its highest position ever in PCI history, leaving Dong Thap in third. This result, however, still helped Dong Thap maintain its status as one of the 5 best-performing provinces nationwide in governance quality for the ninth consecutive year.

The biggest surprise we found in this year's PCI ranking is Binh Duong's spectacular return to the top five group. In the PCI's history, Binh Duong received the top ranking in the report's first three years. In the years afterwards, its scores declined and did not stop until it hit an individual low of 58 points, after which it returned to the Mid-High performance tier. This year, having earned 63.57 points, the province made an impressive return to the Excellent tier, finishing in 4th position overall after an astonishing climb of 21 places up the ranking.

Such an achievement is the result of tremendous, sustained reform efforts by the province. After two years in operation, the Centralized Administration Center of Binh Duong proved to be effective, providing professional, quick, and user-friendly services to citizens and businesses. A model, piloted by the province, allows citizens and businesses to submit administrative dossiers from home. Businesses can also arrange an appointment with state agencies via email. State agencies can likewise communicate rapidly with businesses if they fail to deliver services by a promised deadline. Binh Duong's Provincial People's Committee, together with other departments and agencies, attached special importance to promoting the image of a friendly and proactive government by consulting citizens and businesses about their satisfaction with administrative procedures. Public-private dialogues and meetings with businesses have been held to address the needs of businesses and strengthen the role of business associations.<sup>6</sup> These efforts were lauded by the business community in the PCI 2016 survey. The percentage of firms that claimed "it is common for businesses to experience informal charge related [to] harassment during administrative procedures" significantly dropped from 76 percent in 2014 to 52 percent in 2016. The percentage of enterprises that said "our firm does not have to make many trips to obtain stamps

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6 *Interview with Representatives of State Agencies and Members of the Federation of Enterprises in Binh Duong Province, February, 2017*

and signatures” increased dramatically from 56 percent in 2014 to 70 percent in 2016. Finally, the proportion reporting a positive attitude of provincial government officials towards private business was 45 percent, notably higher than the 36 percent who made this claim in 2015.

The provinces of Vinh Long, Thai Nguyen, Ho Chi Minh City, Vinh Phuc and Quang Nam rounded out the top 10 best performing provinces and cities. Particularly noteworthy was Vinh Long, which showed remarkable improvement, moving from 19th place (59.49 points) in 2015 to 6th place in 2016 (62.78 points).

It is also notable that there was a pronounced improvement in the scores of all five centrally-run cities. In particular, Ha Noi and Hai Phong outdid themselves to score over 60 points for the first time ever, finding their way to the High tier, at the 14th and 21st place, respectively, out of 63 provinces and cities. Can Tho scored 61.14 points, ranking 11th. This score led to its return to the High tier after two consecutive years in the Mid – High group.

In 2016, Ha Noi focused on strengthening administrative discipline in the spirit of the “Five Clear” principle, emphasizing clarity in “personnel, tasks, processes, responsibilities, and effectiveness” when handling administrative procedures for businesses and citizens. Further, the city also introduced a policy of “one task, one focal point,”<sup>7</sup> whereby businesses or citizens may come to a single office at the government agency to have their administrative issues resolved. These efforts have been appreciated by the business community, which was most clearly reflected by an increase in the sub-indices of Time Costs and Informal Charges, which rose 0.3 and 0.4 points, respectively, from the previous year. Specifically, 53 percent of enterprises said “our firm doesn’t have to make many trips to obtain seals and signatures,” a remarkable increase compared with 49 percent in 2015. Forty-nine percent of businesses said “Government officials are friendly in resolving administrative procedures,” a sharp increase from 2015 (36 percent). Additionally, the percentage of firms claiming “it is common for businesses to experience informal charge related [to] harassment during administrative procedures,” declined from 78 percent in 2015 to 69 percent in 2016.

Ho Chi Minh City, despite an increase of 0.36 point in its overall score, dropped by 2 places and is ranked eighth in the PCI 2016. This is chiefly due to even greater improvements by other provinces such as Binh Duong and Vinh Long. The city’s increased scores were largely due to improvements in firms’ perceptions of the sub-

index Market Entry -- time for business' registration was reduced by 3 days compared to the previous year -- and Informal Charges -- firms' perception of harassment in resolving administrative procedures for enterprises declined from 76 percent in 2015 to 64 percent in 2016. Although the Xin Chao Coffee Shop<sup>8</sup> legal dispute was satisfactorily resolved, the PCI 2016 survey showed that businesses in HCMC did not seem to feel fully confident in legal and dispute resolution procedures in the city. The sub-index, Legal Institutions, of HCMC went from 5.03 points in 2015 to 4.24 points in 2016; only 26 percent of businesses agreed "The legal system always has a mechanism to help enterprises to denounce acts of corruption of public officials," a marked decline from 34 percent in 2013.

On the other side of the ledger is the notable drop of Thanh Hoa from the High to the Mid-High tier, placing 31st out of 63. Its total score declined by more than 2 points compared to 2015. Enterprises in Thanh Hoa claimed that the performance of local officials was much lower in 2016 than in 2015. The number of firms that said "government officials are effective in processing procedures" fell by more than 20 percentage points, from 61 percent in 2015 to 40 percent in 2016. Only about 32 percent said that "paperwork and procedures are simple" in 2016, down sharply from 49 percent in the previous year. Up to one-third of businesses had to spend more than 10 percent to understand and comply with administrative procedures over the past year.

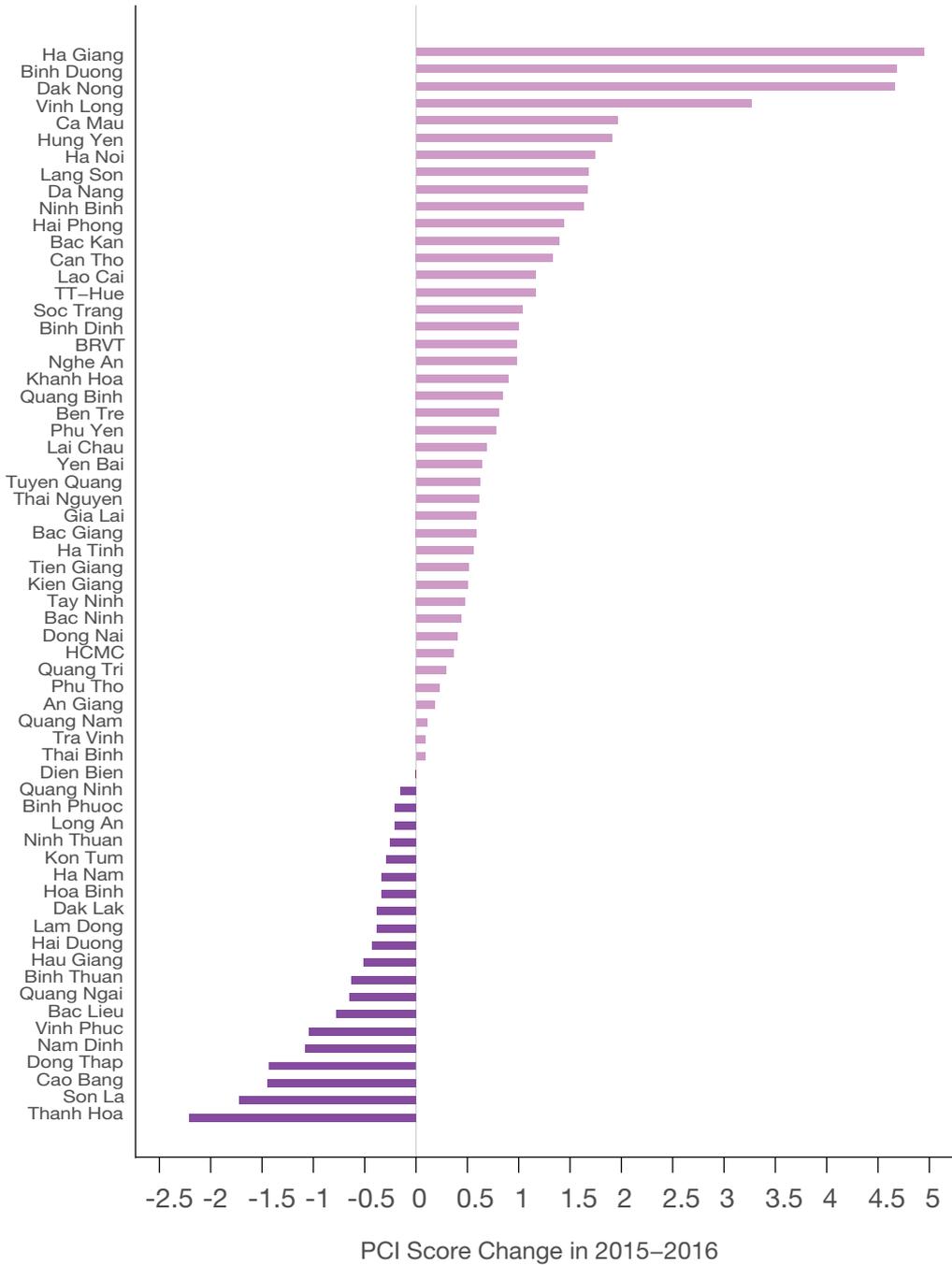
As we noted in the PCI 2015 report "...good economic governance reform across the country has seen constructive new transformations not only in "star" provinces, but also at the provinces listed in the bottom tier. These positive signs allow us to hope for a brighter period of reforms in economic governance in times to come."<sup>9</sup> The most positive developments in the PCI 2016 ranking were actually seen in the bottom tier. This year, we see "pink shading," indicating the low economic governance group, in only the two provinces: Lai Chau and Cao Bang. This has never happened in the history of the PCI. Despite losing nearly 1.5 points and falling to the bottom place, Cao Bang still scored 4 points higher than Dak Nong, which held the bottom position in 2015 (52.99 points versus 48.96 points). Interestingly, even many provinces that have traditionally been listed in the low performing group made significant improvements in 2016. Ha Giang (up 4.95 points) and Dak Nong (up 4.66 points), are two of the three provinces that have the highest improvement in PCI scores compared to 2015 (Figure 1.5). This list also includes the provinces of Ca Mau (+ 1.96 points), Lang Son (+1.68 points), Bac Kan (+1.40 points) and Lai Chau (+0.69 points), which also received a better assessment of economic governance quality.

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8 The case of Mr. Nguyễn Văn Tấn – the Owner of the Coffee Shop Xin chao at the Street No. 3, Tân Túc town, Bình Chánh District, HCMC was prosecuted for "illegal business practices." VietNamnet 2016

9 VCCI-USAID. 2015. The Provincial Competitiveness Index Report. Page 4.

Figure 1.5: PCI Score Change in 2015 and 2016



## 1.3. HIGHLIGHTS OF PROVINCIAL GOVERNANCE OVER TIME

Figure 1.6 shows changes in the minimum, median, and maximum PCI scores over a period of 10 years. The positive highlight is the major improvements that the poorest-performing provinces have made. Specifically, the lowest ranked province in the PCI 2016 survey still scored 52.99 points, up nearly 4 points over the previous year. This was also the highest low score in the 12-year history of the PCI survey.

The gap between the top and bottom groups narrowed to 17 points this year, smaller than the gap of 19 points in 2015. This appears to be the result of impressive efforts in many provinces in the bottom group to apply lessons learned from other cities and provinces, particularly in the relatively “easy” reform areas, such as reducing the time for business registration. The four provinces in the bottom group of PCI 2015, including Bac Kan, Lai Chau, Ha Giang and Dak Nong, made the biggest improvements in the areas of Informal Charges (+3.85 points), Transparency (+2.15 points), Time Costs (+1.91 points) and Market Entry (1.01 points).<sup>10</sup> Examining just the bottom group, one can see that the gap between the bottom and median provinces also declined considerably, to only about 6 points, compared with the average 10-point spread in the 2010-2015 period, or the average 13-point divergence over the 2006-2009 period. This indicates that 2016 saw the greatest convergence ever recorded in PCI scores.

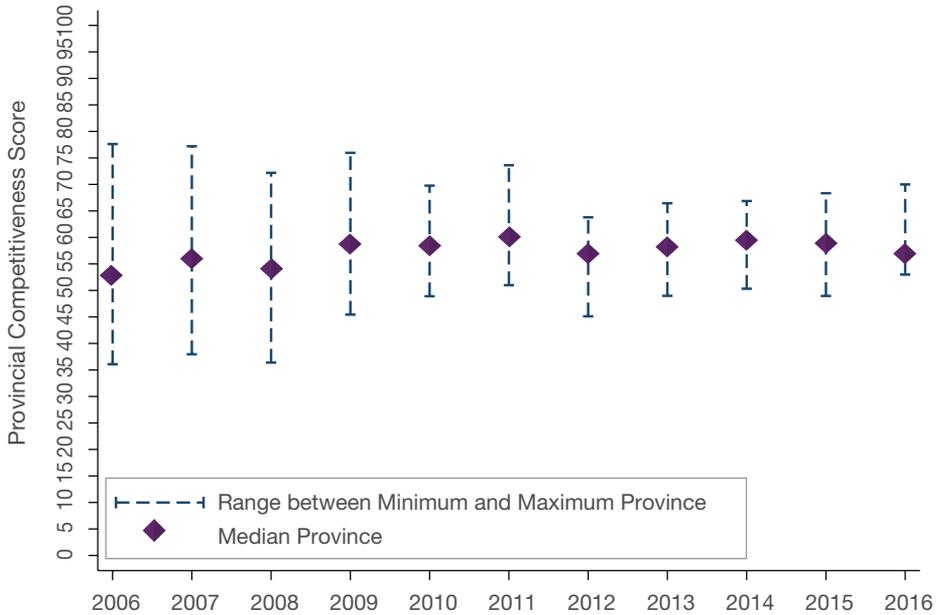
The northern mountainous and midland region, which is home to many low or very low performers, has adopted more action programs for improving the business environment than other regions in the past two years. According to the library records of the PCI research team, 14 provinces formulated and issued decisions and directives in 2015 on improving their provincial business environment and competitiveness, of which more than one-third came from the northern mountainous and midland region (including the five provinces of Dien Bien, Tuyen Quang, Bac Giang, Yen Bai and Hoa Binh). In 2016, 17 provinces issued formal documents about PCI improvement, and there were five provinces from this region (Dien Bien, Bac Kan, Cao Bang, Thai Nguyen and Son La). It should be noted that we did not count in this figure the action programs on business environment improvements issued by the provinces to implement Resolution 19/NQ-CP.<sup>11</sup> At least 28 provinces and cities adopted action programs from 2015 to 2016, of which there were eight provinces from the northern mountainous region.

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<sup>10</sup> The calculated score is the aggregate change in each of every sub-index of 4 provinces.

<sup>11</sup> Resolution No.19/NQ-CP/2014-2015-2016 on “Major tasks and solutions for improving the business environment and national competitiveness.”

**Figure 1.6: Changes in Minimum, Median and Maximum PCI Scores over Time (2006-2016)**



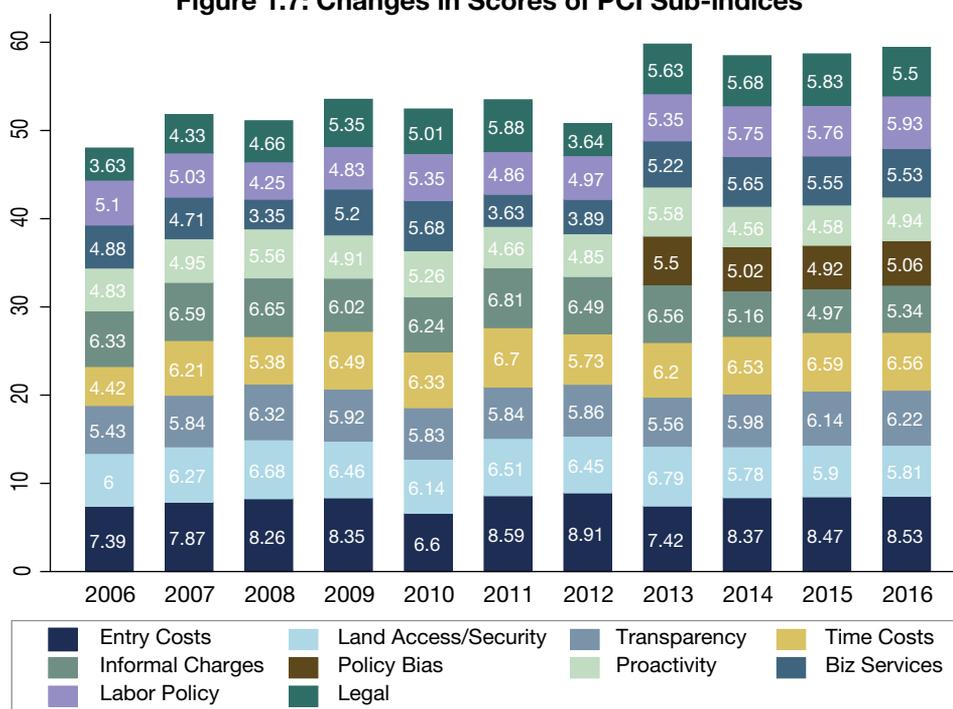
2016 is the third consecutive year that the PCI score of the median province, a general representative of Viet Nam, was recorded at 58 points. Apparently, many provinces have stagnated, particularly those in the upper half of the rankings. Except for Da Nang and a few provinces that experienced a positive trend, some of the best performing provinces in the rankings continued to show a worrisome pattern of paralysis as has been noted several times in previous PCI reports. The easy-to-implement reforms have largely been achieved, but provinces seem incapable of tackling new challenges and developing new governance breakthroughs. One of the major obstacles will be figuring out new ways of increasing administrative efficiency in order to promote economic development. On the positive side of the ledger this year, the convergence does indicate active learning and sharing of experiences among the provinces with regard to improving the business environment.

As observed by the research team at regional conferences and small-scale roundtables, study tours among the provinces about how to successfully plan and implement reform initiatives have gradually spread throughout the country, such as the model of “coffee with business” in Dong Thap and Tuyen Quang. Another example is the construction of the “District and Department Level Competitiveness Index” in Lao Cai, Tuyen Quang, and Quang Ninh. The good news is that the provinces did not just copy the same activities; they were actively seeking a version of their own that worked better for their particular conditions. For example, the “business doctor” model in Bac Ninh built upon

the experiences of several other provinces.<sup>12</sup> Quang Ninh’s business environment improvement programs were inspired by high achievers like Da Nang, Bac Ninh, Ho Chi Minh City, Tuyen Quang, and Nghe An.<sup>13</sup> This positive diffusion provides a solid basis for the PCI staff to believe that promoting the sharing and discussion of best practices and experiences with providing good governance among the provinces can be a highly effective means of improving Viet Nam’s national business environment.

Similar to 2015, the degree of reform witnessed in each specific domain of economic governance is relatively small. The two areas with the biggest improvements, Proactivity and Informal Charges, climbed up by only 0.3 points each; they were followed by Labor Training (up 0.17 points) and Policy Bias (up 0.15 points). A good sign was that these four areas slightly increased after two years of decline. However, four areas did not change much from the 2015 survey, including Transparency (+0.08), Market Entry (+0.06), Business Support Services (-0,02) and Time Costs (-0.03). Finally, Land Access and Legal Institutions fell slightly by 0.09 points and 0.3 points, respectively, compared to 2015.

**Figure 1.7: Changes in Scores of PCI Sub-indices**



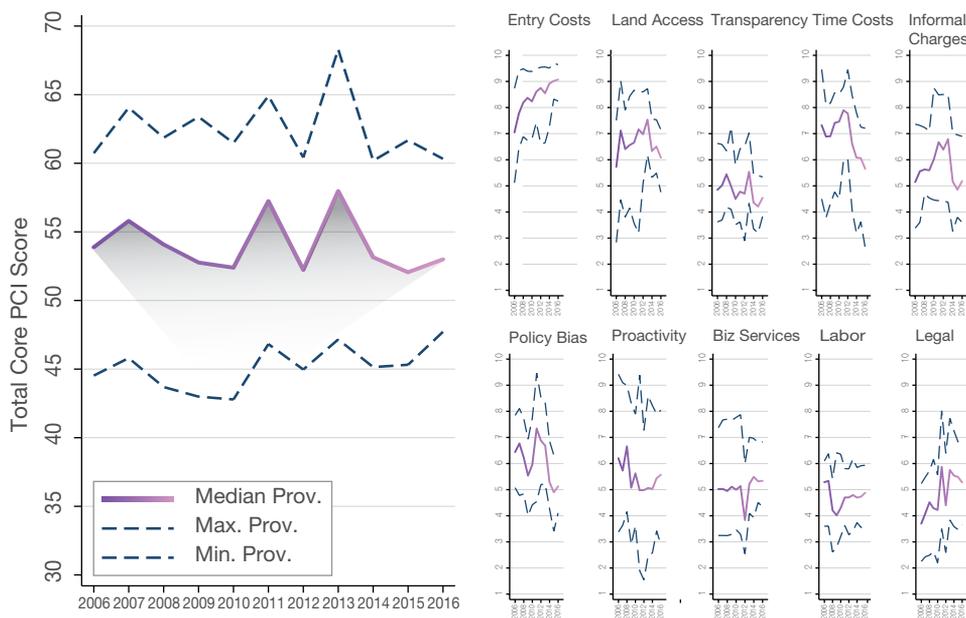
<sup>12</sup> Especially, Quang Nam, Quang Ninh, Binh Phuoc, Tuyen Quang, Da Nang, and Dong Thap. Learned in conversation with Mr. Nguyen Phuong Bac, Head of Bac Ninh Socio-Economic Development Institute at the Workshop on Sharing Experiences and Best Practices for Highlands and Southeast Region held by VCCI on September 8-9 at Buon Me Thuot, Daklak.

<sup>13</sup> Official Letter No. 768 / BXTDT-MC5

Visually observing patterns of change in each individual sub-index over time is very helpful for Viet Nam in general and for individual provinces to formulate targeted reform strategies. After all, the PCI is a continuous and exacting marathon, not a sprint. Therefore, careful consideration is required over a long period to be able to define trends and propose solutions with an eye to the future. With that goal, the PCI research team took advantage of the time series PCI data over the 2006-2016 period, to examine the long-term trends of each individual PCI domain. To do this, we relied upon the core PCI,<sup>14</sup> which is constructed from a smaller set of indicators that have remained fixed for 11 years.

In Figure 1.8, the purple line represents the score of the median province; the black dashed lines show the scores of highest and lowest provinces. Changes in governance of the country can be observed through the score of the median province, while the distance between two dashed lines represents the variation in scores between the top- and bottom-ranked provinces. From 2006 to 2016, the improvement of market Entry Costs has been the most pronounced and sustained. The two sub-indices that display a trend of steady recovery were Proactivity and Labor Training. Meanwhile, Transparency, Informal Charges and Policy Bias have signalled a slight increase over the past three years. Finally, the three sub-indices of Land Access, Time Costs and Legal Institutions have continuously declined.

**Figure 1.8: Changes in Score of the Original PCI and Sub-indices**



<sup>14</sup> For the list of indicators of the Core PCI, see Annex 2, e-version of the 2016 PCI report on the website [www.pcivietnam.vn](http://www.pcivietnam.vn)

The following section gives a brief recap of general economic governance in the provinces and cities in Viet Nam over the 2006-2016 period.<sup>15</sup>

### Positive Trends

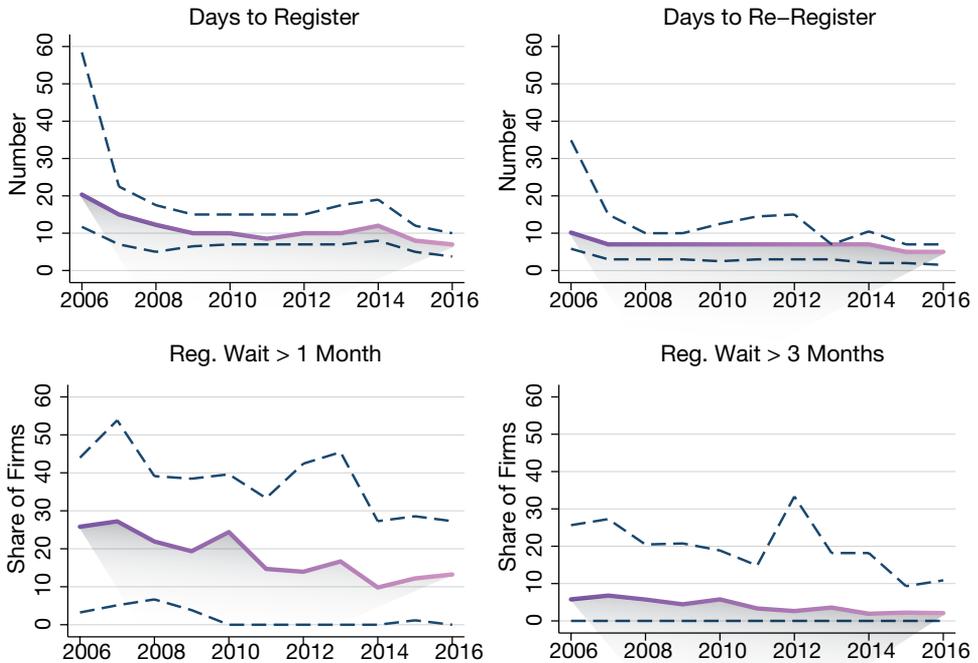
- **Entry Costs:** A series of policies to encourage and facilitate the establishment of businesses has been enacted and implemented with the goal of developing 1 million effectively operating businesses by 2020 in accordance with Resolution No. 35/NQ-CP (2016).<sup>16</sup> The PCI survey results show that, by end of 2016, business registration reform achieved positive results, illustrated by Figure 1.9. In 2006, it took 20 days, on average, for a business in the median province to register; in 2016, it took only 7 days to do so, a record low in the 12-year history of the PCI survey. It should be noted that this number takes into account the travel time of all the trips that a firm had to take to amend and supplement documents, before it had a complete registration dossier accepted by the government agency. The decreasing gap between the top- and bottom-ranked provinces in these two indicators demonstrates the convergence discussed above. Entry costs no longer generate large differences in competitiveness between cities and provinces.

The average waiting period for the issuance of land use rights certificates dropped from 120 days in 2006 to 30 days in 2016. At the same time, the percentage of businesses that had to wait for more than one month to be legally recognized fell from 26 percent to 13 percent. Compared to 11 years ago, business registration procedures have been dramatically simplified. These achievements by central and local government agencies should be applauded, as they play an important role in encouraging the establishment of new businesses.

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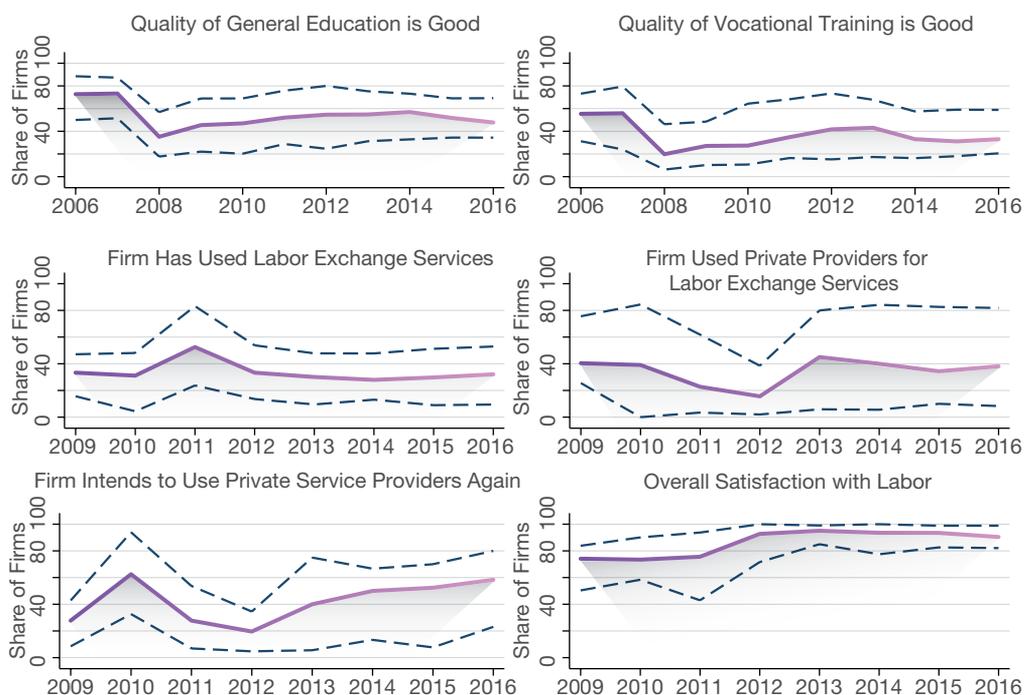
<sup>15</sup> Details of 10 PCI sub-indices, see Annex 3, e-version of the 2016 PCI report.

<sup>16</sup> Resolution No. 35/NQ-CP, dated May 16, 2016 of the Government on Supporting and Developing Enterprises by 2020

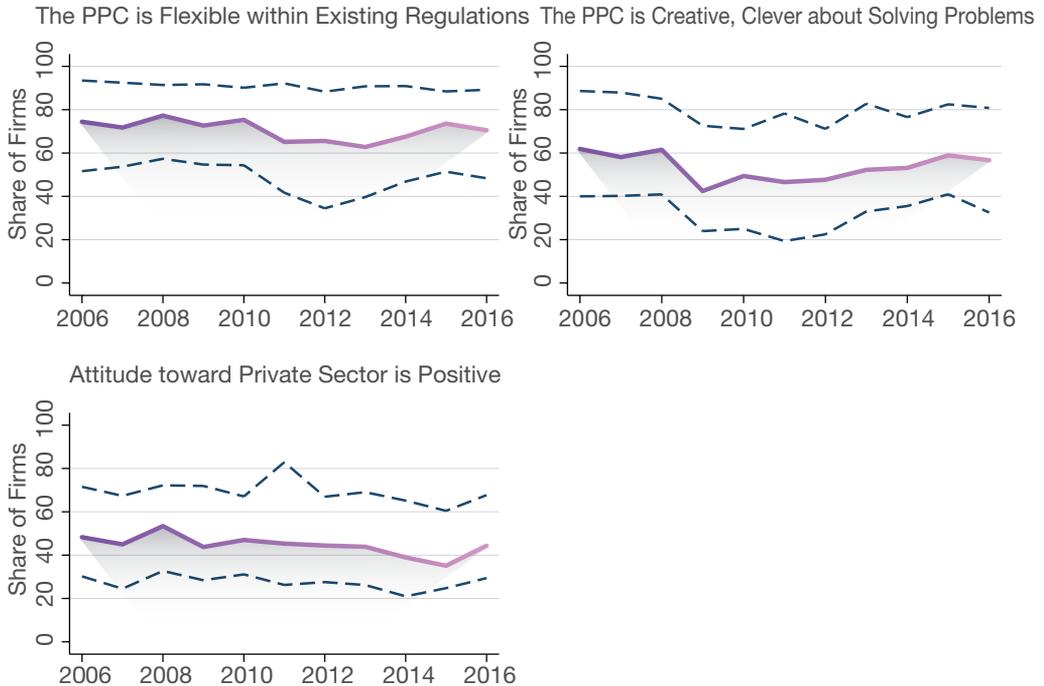
**Figure 1.9: Indicators of the Sub-index “Market Entry” over Time**

- **Labor Training:** After significant drops in 2008, the level of satisfaction with the quality of labor training gradually went up again (Figure 1.10). According to the PCI data, in 2016, 47 percent of firms were satisfied with the quality of general education in the province (compared to 35 percent in 2008). At the same time, 33 percent said they were satisfied with the quality of vocational training (compared to 19.8 percent in 2008).

**Figure 1.10: Indicators of the Sub-index “Labor Training” over Time**



- Proactivity:** Three indicators assessing the proactivity of provincial leaders experienced positive changes (Figure 1.11). In 2006, nearly 62 percent of businesses in the median province agreed with the statement “Even when central regulations are unclear, my provincial People’s Committee Chairman (PPC) is creative and clever in solving newly arising problems.” After 5 years, this fell below 47 percent, indicating that provincial leaders were having trouble acting autonomously on behalf of the business sector. However, since then, firms’ perception of the proactivity and creativity of local authorities improved to 57 percent in 2016. The flexibility within the scope of laws to create a favorable business environment for private enterprises recorded incremental, positive improvements during this period. Currently, 70.5 percent of businesses in the median province believe their provincial leadership is flexible, 10 percentage points higher than the low recorded in 2011. As for the final indicator, “the provincial government has a positive attitude towards the private sector,” this year, the percentage of firms agreeing with this statement was up nine percentage points (44 percent) following a record 2015 low point of 35 percent, so there was only a net decrease of four percentage points compared to 2006 (48 percent).

**Figure 1.11: Indicators of the Sub-index “Proactivity” over Time**

Note: PPC: Provincial People's Committee

- Business Support Services:** Time series analysis of the changes shows that business support services have gradually improved in both quality and quantity. The PCI survey asked firms to reflect on five categories of business support services: 1) Market information search; 2) Legal consultancy; 3) Business matchmaking services; 4) Trade promotion and trade fair/exhibition services; and 5) Technology and technology-related services. It is noteworthy that the perceived quality of all five services has improved from the 2009 baseline when this sub-index was introduced. This was demonstrated by a higher percentage of firms that intended to use the services again. Compared with 2009, intent to reuse market information search increased to 60 percent, legal consultancy went up to 48 percent, business matchmaking services rose to 55 percent, trade promotion or trade fair/exhibition services improved to 45 percent, and technology related services reached 36 percent. However, the analysis suggests that provincial policy support should be provided to three types of services (legal advice, trade promotion and technological services) in order to encourage greater use by the private sector firms.

# POSITIVE TRENDS IN GOVERNANCE REFORM

2006-2016

## ENTRY COST



Wait time to register a business

13%

Had to wait more than 1 month to be legally recognized



Firms satisfied with the quality of training



## LABOR TRAINING

47%

General education



33%

Vocational training



## PROACTIVITY



57%

Said local authorities are proactive and creative



71%

Said provincial leadership is flexible



44%

Agreed provincial government has a positive attitude toward private sector

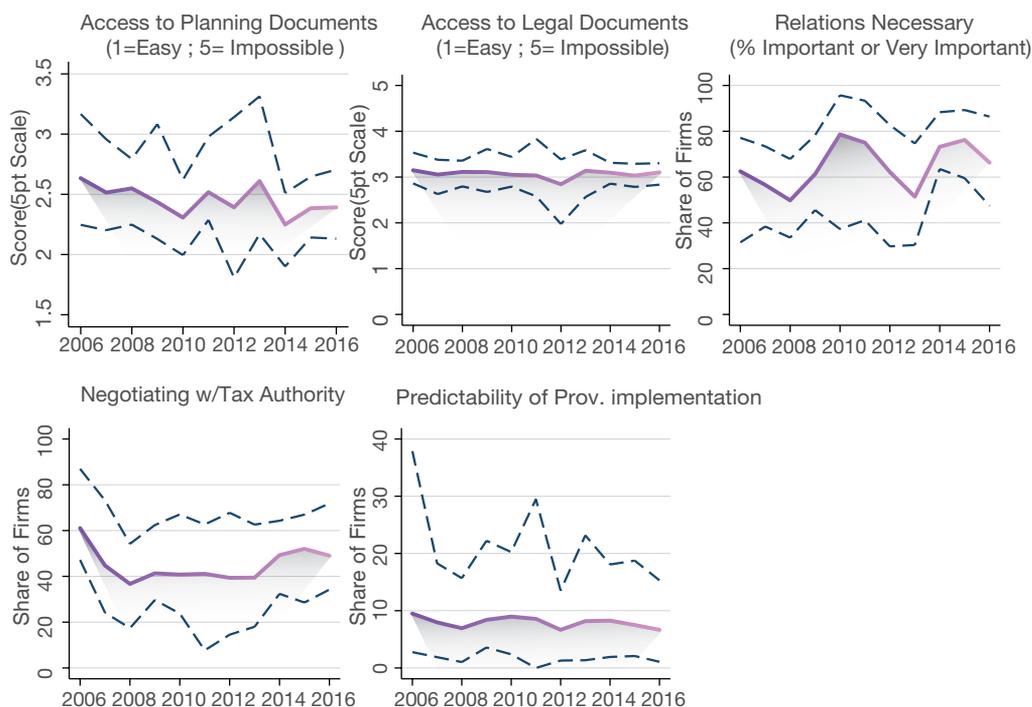
## Worrisome Trends

The core PCI survey over the 2006-2016 period shows worrisome deterioration in six areas: Transparency, Informal Charges Time Costs, Policy Bias, Land Access and Legal Institutions.

- **Transparency:** The time series data show that efforts to strengthen information accessibility for businesses are insufficient. On a scale of 1 to 5 points, with 1 representing inaccessibility and 5 representing complete access, the median province rated access to planning documents at only 2.39 points in 2016. This score remained lower than the 2.63 points in 2006 despite its improvement in comparison with the score of 2.25 points in 2014. These planning documents cover important business-related topics such as budgeting, land use, infrastructure projects, and investment incentives. Access to legal documents (such as laws, decrees, guiding documents of the central level, provincial gazette, and administrative forms) came in at 3.10 points in 2016, lower than in 2006 (3.15 points) and followed some volatility in the intervening 11 years.

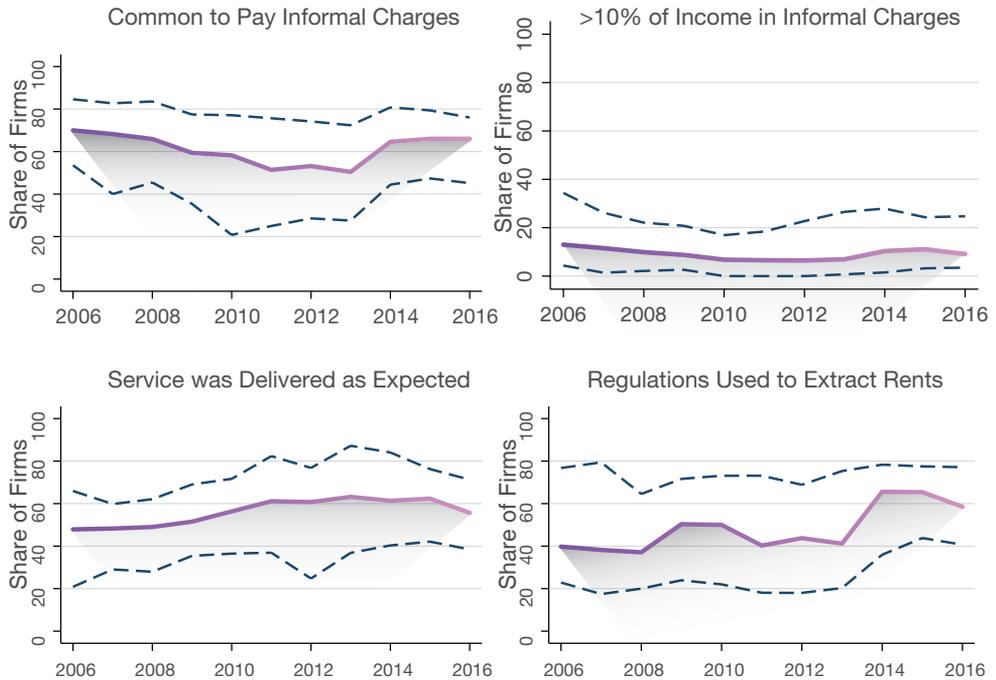
It appears that personal relationships with public officials continues to play an important role for whether businesses can access important information and documents. In 2016, 66 percent of enterprises in the median province claimed that they had to use connections to obtain access to information, more than 16 percentage points higher than the record lows in 2008. After a period of decline the percentage of firms that claim “Negotiations on payable taxes with provincial tax officers are a necessary part of doing business” is once again on the rise. The lack of transparency at some government agencies could lead to undesirable consequences for the economy as many businesses have to spend time and resources to develop personal relationships with government agencies in order to obtain important information instead of growing their business.

**Figure 1.12: Indicators of the Sub-index “Transparency” over Time**



- Informal Charges:** A business environment that lacks transparency will also create more opportunities for corruption (Figure 1.13). The PCI survey results over the years have confirmed this.<sup>17</sup> The informal charges in the 2014-2016 period saw no signs of improvement compared with the 2006 baseline. In 2016, about 66 percent of businesses in the median province had to offer a bribe or make informal payments to public officials, which was 12-15 percentage points higher compared to the 2008-2013 period. Eleven percent of firms in the median province claimed that such informal payments represent more than 10 percent of their total revenue, a sizeable financial burden for any business. In addition, many enterprises agreed that “It is common for businesses to experience informal charges related [to] harassment during administrative procedures.” This indicator, despite improvements over the last two years, remained much higher than in the early years of the PCI.

<sup>17</sup> See “The Correlation between Transparency and Corruption”. The 2015 Provincial Competitiveness Index Report. VCCI- USAID. Page 90-94.

**Figure 1.13: Indicators of the Sub-index “Informal Charges” over Time**

- **Time Costs:** The time costs of regulatory compliance hit a record low core index score in 2016 (Figure 1.14). For the three consecutive years (2014–2016), one in every three enterprises in the median province had to spend more than 10 percent of its time on compliance with administrative procedures, a record high rate in the history of the PCI survey (Figure 1.14). For the 2006–2013 period, this rate was only one in five or sometimes one in ten (2011).

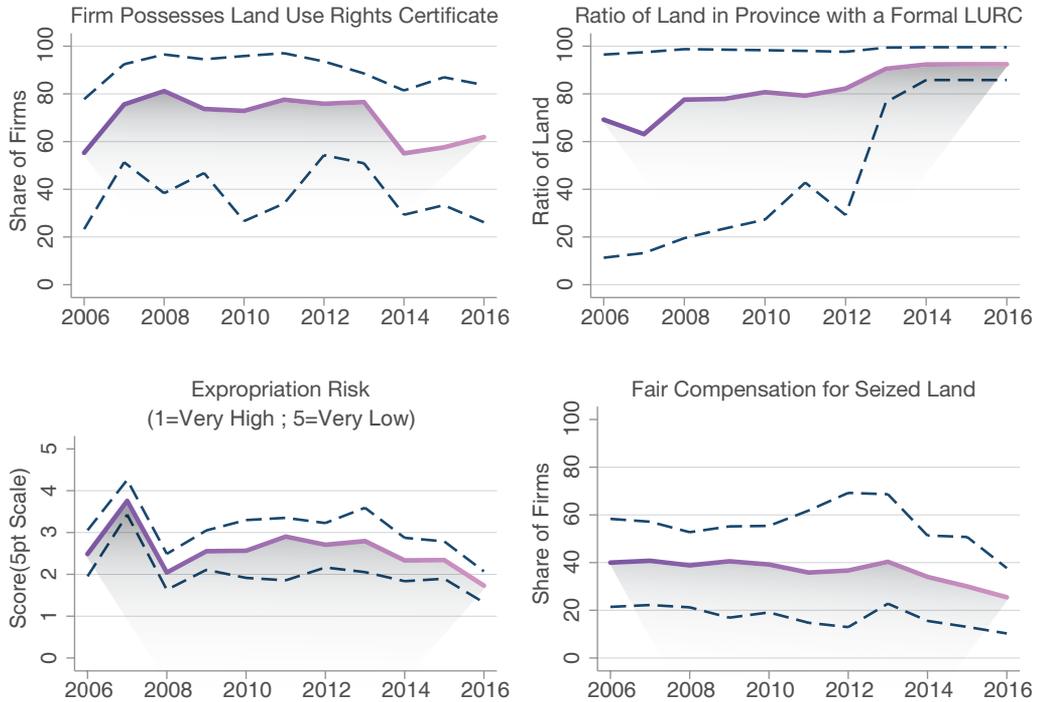
This year, the median firm experienced only one [tax] inspection, though the time spent for each inspection visit increased to 8 hours. New indicators added since 2013 to better measure administrative reform effectiveness showed undesirable trends. The local officials’ efficiency in handling work was regarded worse than the previous years. The share of firms agreeing that government officials are effective fell from 70 percent in 2013 and 67 percent in 2015 to 58 percent in 2016. Despite numerous national and provincial efforts to simplify administrative procedures, the percentage of firms that rated “Paperwork and procedures are simple,” continued to decline from 62 percent in 2013 to 51 percent in 2015 and 49 percent in 2016. Administrative procedures continue to place a heavy burden on firms that has shown no signs of easing over time.

**Figure 1.14: Indicators of the Sub-index “Time Costs” over Time**



- Land Access:** The Land Access Sub-index (Figure 1.15) plunged after increasing steadily during the 2008-2013 period. The first two indicators in Figure 1.15 are related to obtaining land use rights certificates. Nearly 62 percent of median firms in the 2016 PCI survey respondents obtained a land use right certificate, a higher figure than in the 2014-2015 surveys. However, the remaining land use criteria show increased uncertainty. The median firm claimed in 2016 that its risk of land appropriation by local authorities was at a record high (1.73 points).<sup>18</sup> Only 25 percent of firms at the median believed that they would be adequately compensated, down sharply from previous years.

18 1= highest risk level, 5= lowest risk level

**Figure 1.15: Indicators of the Sub-index “Land Access” over Time**

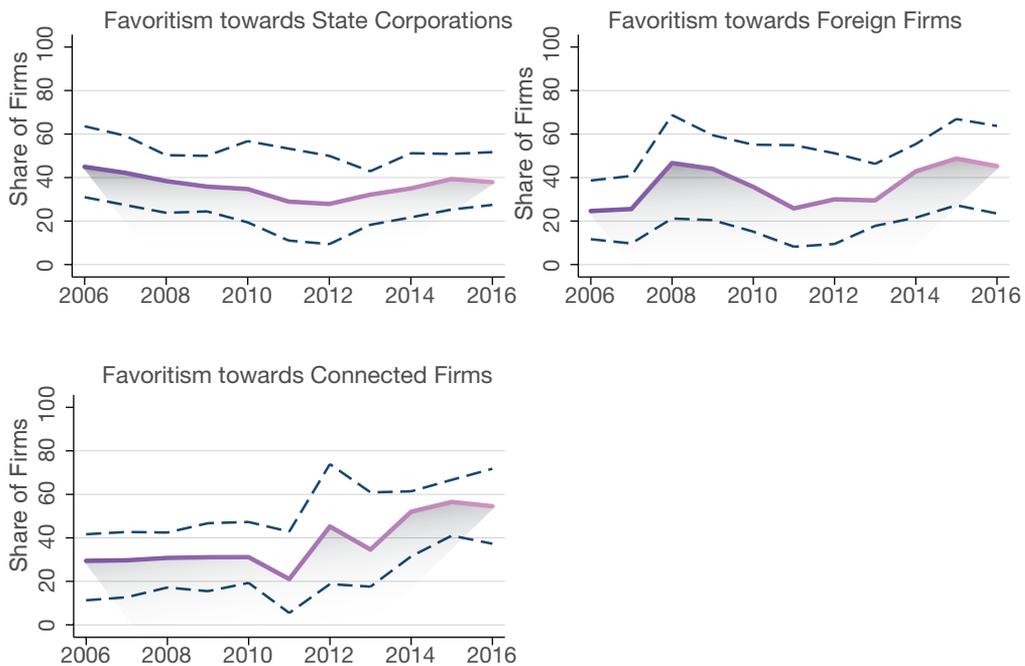
Note: LURC: Land Use Rights Certificate

- **Policy Bias:** The core PCI survey results over the 2006-2016 period reveal a playing field that is not level for enterprises in the provinces and cities of Viet Nam (Figure 1.16). Small- and medium-sized private firms (SMEs) remain the most disadvantaged group. In the median province this year, more than 38 percent of businesses claimed that “the favoritism of provincial authorities towards state owned enterprises (SOEs) causes difficulties to their firm’s business operation,” a statistically significant increase of 6 percent compared to 2013. At the same time, more than 42 percent of businesses at the median agreed with the statement “the provincial authorities seem to prioritize FDI attraction to domestic private sector development,” up 14 percent from 2013.

A worrying trend is that using personal connections has become increasingly essential for firms to do business. Seventy-two percent of businesses in the median province in 2016 claimed that “Government procurement contracts, land and other business resources mostly fall into the hands of enterprises that have a strong connection with the provincial authorities.” Beyond ownership and connections, many firms believe their size is an obstacle, expressing growing concerns about

policy bias against small businesses. In 2013, only 35 percent of businesses in the median province agreed with the statement “Favoritism towards big companies (both state-owned and private) is an obstacle to the operation of my business.” This figure rose to 56 percent in 2015 and 55 percent in 2016. If strong efforts are not made to rectify the situation, the small and medium sized enterprises (SMEs), which account for 97 percent of private operations in Viet Nam, may not fully develop into engines of growth, as they have done in many developed economies.

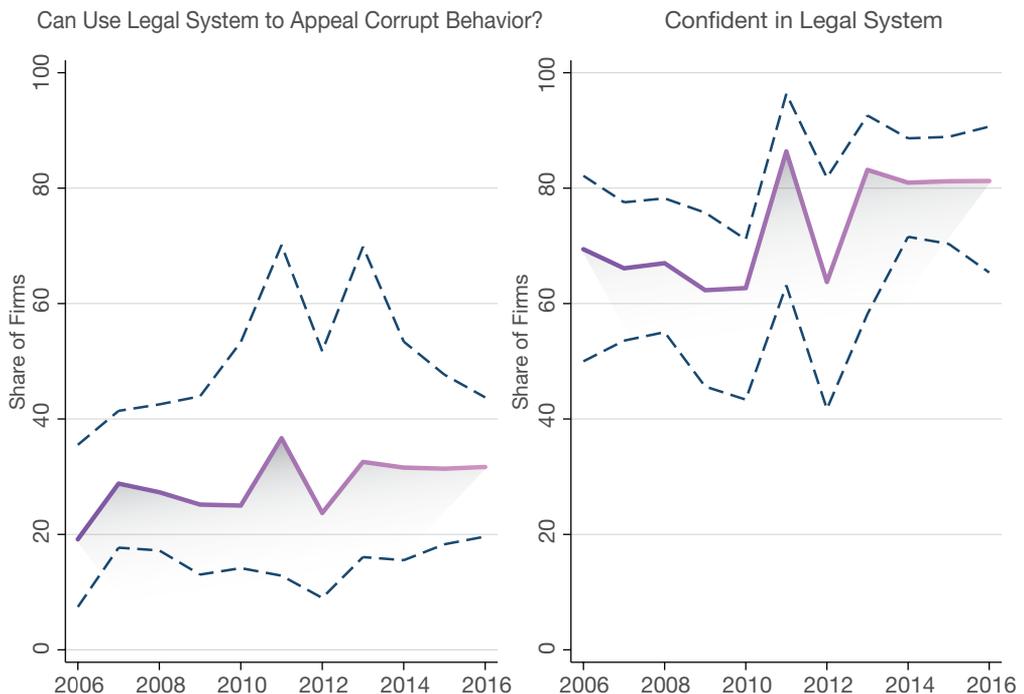
**Figure 1.16 Indicators of the Sub-index “Policy Bias” over Time**



- Legal Institutions:** Finally, the Legal Institution sub-index (Figure 1.17), which reflects business confidence in the courts and the laws of Viet Nam, leveled off during the three most recent years. Since 2013, thirty-one percent of PCI survey respondents in the median province have consistently said “if a state official breaks the law, the legal system will provide a mechanism to report the behaviors of that official.” Although this rate is higher than before 2013, it does not reflect any substantial improvements. Similarly, the number of firms expressing confidence that the enforcement system is able to uphold contracts and property rights in business disputes in the past four years is higher than the figure of 62-69 percent in the previous eight years, but remained around 81 percent.

Most other indicators of dispute resolution via the court system in 2016 saw a decline from the previous period. The percentage of firms in the median province saying that “Judgments by the court are fair” has fallen from 86 percent in 2013 to 78 percent by 2016. Notably, enterprises’ willingness to use the courts to settle disputes has sharply declined over the past four years, falling from nearly 60 percent in 2013 to only 36 percent in 2016. Of about 2,300 businesses that had a legal dispute but did not appeal to the court for resolution in 2016, many claimed that “It takes too long for the dispute to be resolved” (52 percent), followed closely by “offering bribes to solicit favorable judgment is common” (41 percent), and “the cost of dispute resolution is too high” (31 percent). For these reasons, more than half of enterprises said that other dispute resolution methods were more appropriate. The most effective method cited was trade arbitration (47 percent). More than 32 percent of enterprises would use personal connections for help, asking an influential person in the government to handle a situation. Interestingly, the press was also one option chosen by 14 percent of firms as a means to resolve a dispute. The percentage of firms using other informal methods of resolving conflict, such as engaging criminal gangs or mafia groups, was relatively small (less than 4 percent), but still noteworthy.

**Figure 1.17: Indicators of the Legal Institution Sub-index over Time**



# WORRISOME TRENDS IN GOVERNANCE REFORM

2006-2016

## Access to documents



Legal documents

3.10

on a scale of five, where five is the easiest access



Planning documents

2.39

## TRANSPARENCY



66%

Had to use connections to obtain access to information

## INFORMAL CHARGES



2013



2014



2015-2016

66%

Had to offer bribe to public officials

33%

Spent more than 10% of their time on compliance with administrative procedures



## TRANSACTION COSTS



8 hours for tax inspection

## LAND ACCESS



1.73

on a scale of five, where five is least risk of land appropriation

38%

Agreed that state corporation received preferential treatment



## POLICY BIAS

42%

Agreed that province prioritizes FDI attraction over private sector development

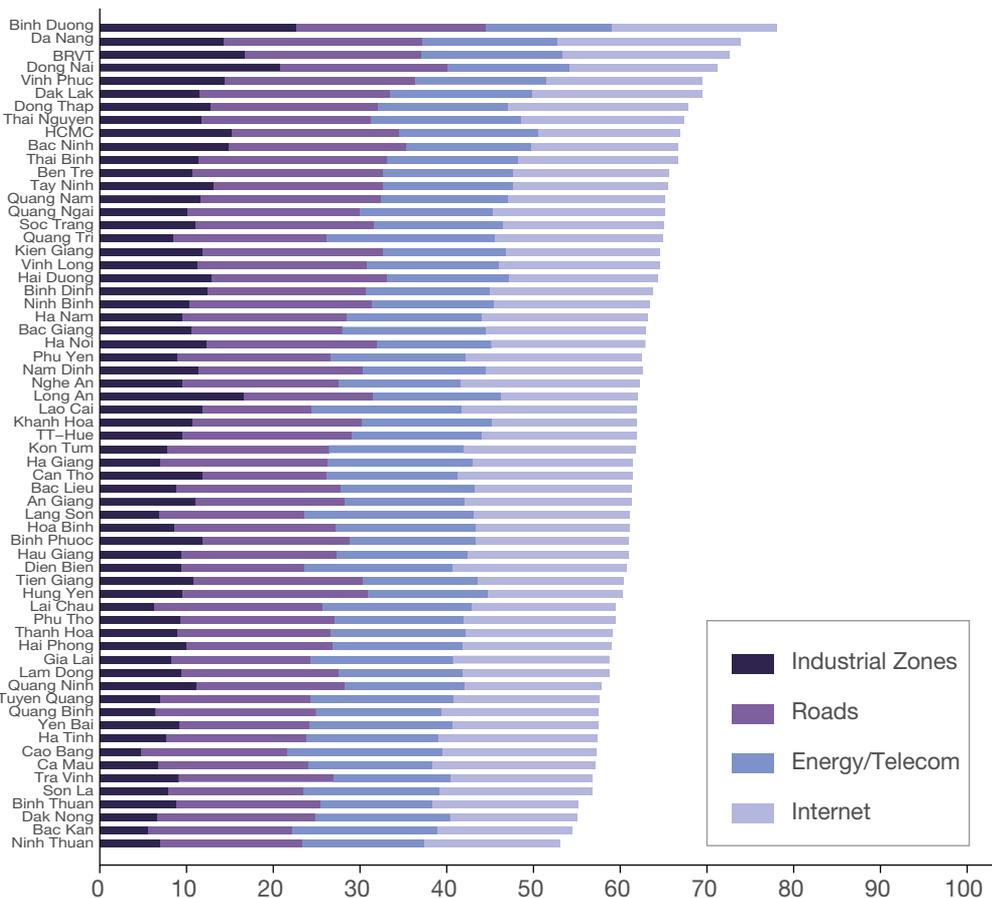


## 1.5. THE INFRASTRUCTURE INDEX

The following section presents the PCI Infrastructure Index 2016 for the 63 provinces and cities of Viet Nam (Figure 1.18). The infrastructure index is not included in the calculation of the PCI scores. However, it can serve as a useful reference for businesses as well as policy makers.

This index is built upon the survey results of firms' perceptions about infrastructure quality across provinces and cities and published data from government sources, including four sub-indices of: (1) industrial zones; (2) roads; (3) public services (telecommunications, energy); and (4) information technology. In 2016, Binh Duong, Da Nang, Ba Ria Vung Tau, Dong Nai, and Vinh Phuc were the five provinces that were rated as having the best infrastructure.

**Figure 1.18. The Infrastructure Index 2016**



Note: For details of Indicators for the 2016 Infrastructure Index, see Annex 4, e-version of the 2016 PCI report on the website [www.pcivietnam.vn](http://www.pcivietnam.vn)

With regard to public services, in 2016, 77 percent of businesses in the median province rated the quality of telephone service as good or very good. This is the area receiving the highest level of satisfaction among firms in the survey. The power supply ranked second with 69 percent of the firms being satisfied. Water (63 percent) and internet services (57 percent) took third and fourth places, respectively. Finally, only 42 percent of businesses on average expressed their satisfaction with the quality of roads and bridges. However, there is a good deal of local variance. In Ha Noi, the percentage of firms satisfied with roads and bridges was only 36 percent, which was significantly lower than Da Nang (79 percent) or Ho Chi Minh City (45 percent). This partly explains why Ha Noi was downgraded in the infrastructure index for this year.

Infrastructure improvements cannot be achieved overnight; they require tremendous resources as well as concerted efforts by both the central and local governments. Provinces can potentially make up for limited infrastructure endowments by improving economic governance quality and creating a favorable business environment with streamlined administrative procedures. On the other hand, those provinces with advantageous geographical location and good infrastructure run the risk of falling into an overconfidence trap. They may assume that investment projects flowing to the province are due to good governance, which may result in further loss or lack of motivation for reform.

## 1.6. GOVERNANCE QUALITY AND ECONOMIC PERFORMANCE

One question frequently received by the PCI research team in PCI workshops, which is also a matter of concern to many provinces and cities, is whether the hard work of improving economic governance, as the PCI defines it, is worth the effort. Will such efforts lead to greater business activity and ultimately economic growth? In this year's report, we test the strength of this relationship using an advanced statistical technique for measuring such time series processes.<sup>19</sup> We find strong evidence that improvements in governance are associated with growth of the private sector. Furthermore, initial investors create market opportunities that, in turn, generate new businesses. In this way, the positive effect multiplies over time, leading to healthier business environments in provinces that invest in governance.

To examine this outcome, we analyze the relationship between changes in the core PCI and the number of new domestic investors in a province, after accounting for the

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<sup>19</sup> See Annex 1 for a more detailed analysis

effects of structural conditions such as population, economic size, infrastructure, and urbanization. We find that each one point improvement in the PCI is associated with short term growth in new enterprise registrations of 2.7 percent (see Figure 1.19). While sizable, this relationship is only the immediate return to governance improvements in the year after reform. The benefits of governance also accumulate over time. The statistical framework helps us calculate the long-run multiplier of governance improvements in a given year. Our findings indicate that changes today are associated with a 3 percent increase in additional enterprises over the next ten years.

**Figure 1.19: Statistical Relationship between Governance and New Investment after Controlling for Structural Determinants**

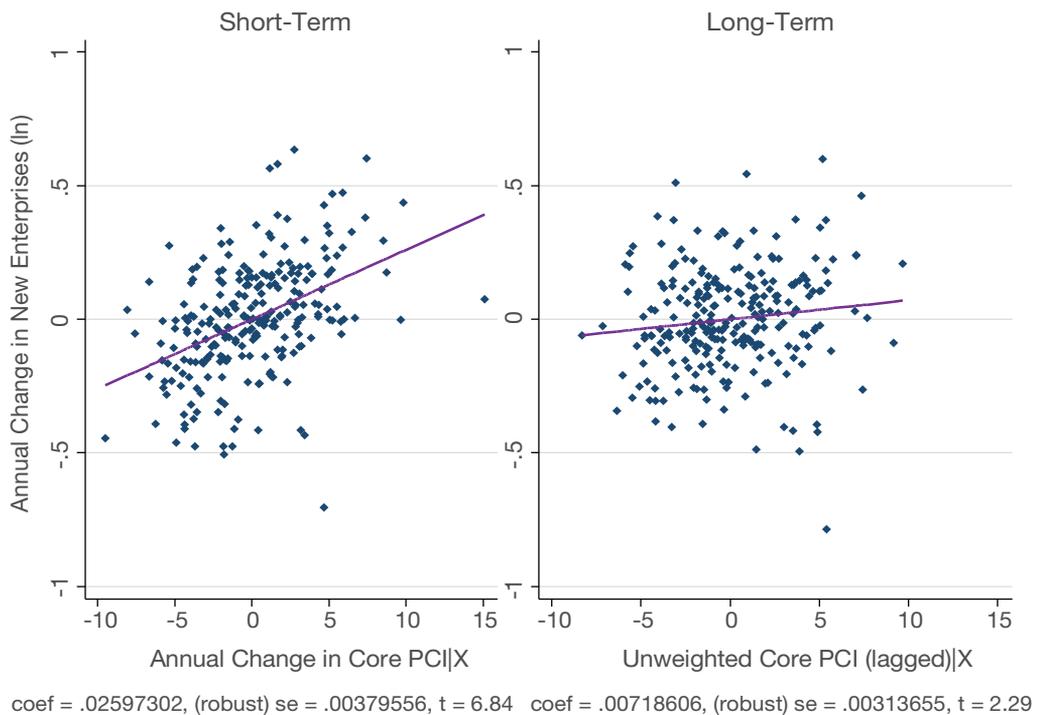


Figure 1.20 further identifies the extent to which particular sub-indices are responsible for the positive relationship between governance and economic performance, plotting the coefficients along with their 90 percent confidence intervals. Sub-indices to the right side of the chart whose confidence intervals do not overlap with the zero line have a positive and statistically significant relationship with governance. These are the most fruitful target areas for local government officials to concentrate their efforts.

**Figure 1.20: Statistical Relationship between PCI Sub-indices and New Investment after Controlling for Structural Determinants**



Provinces wishing to improve economic performance in the short term should focus on improving land access and labor training as well as lowering informal charges. They should also work to reduce the prevalence of bias toward state owned enterprises and make a concerted effort to improve transparency. These all have quite dramatic and profound short term relationships with growth. A one point improvement on the Land Access or Labor training sub-index, for instance, is associated with nearly a 12 percent increase in the number of new enterprises.

Long-term multipliers are particularly large for land titles (0.15) and reducing bias toward SOEs (0.12). One point improvements on these indices today could generate as much as a 15 percent increase in the number of new business entrants over the next ten years.

In addition, the PCI survey annually asks how firms make investment decisions in order to better understand the key determinants in this process. The question in the PCI survey questionnaires is: “If your firm were planning to expand your business to another province/city in Viet Nam or another country, which location would you choose?”

Although this is a hypothetical question, it is a valuable bellwether of investors already present in Viet Nam.

Nearly 8,000 enterprises participating in the PCI 2016 survey were asked to select an investment destination from among the remaining 62 provinces and cities when planning an expansion. The firms were also asked to provide the reasons why they would choose that new location. The responses received from 3,462 firms revealed the 10 most attractive places for future Vietnamese investment (Table 1.2). Topping the list is Ho Chi Minh City (selected by 662 firms), followed by Da Nang (475 firms), Ha Noi (334), Binh Duong (186) and Can Tho (97).

Of course, when choosing a place to expand their business and production, investors often consider multiple factors beyond governance, including geographical location, infrastructure, market size, costs, and labor quality. Nevertheless, every one of the top ten locations is in a PCI performance tier that is Mid-High or above, and eight are ranked eight High or Excellent. All selected locations, with the exception of Dong Nai, also have PCI scores well above the median province in 2016. Clearly, while other factors may influence the final decision, economic governance appears to create a floor condition. Very few firms would consider expansion into a province ranked low in the PCI, even if it had stellar infrastructure and market conditions.

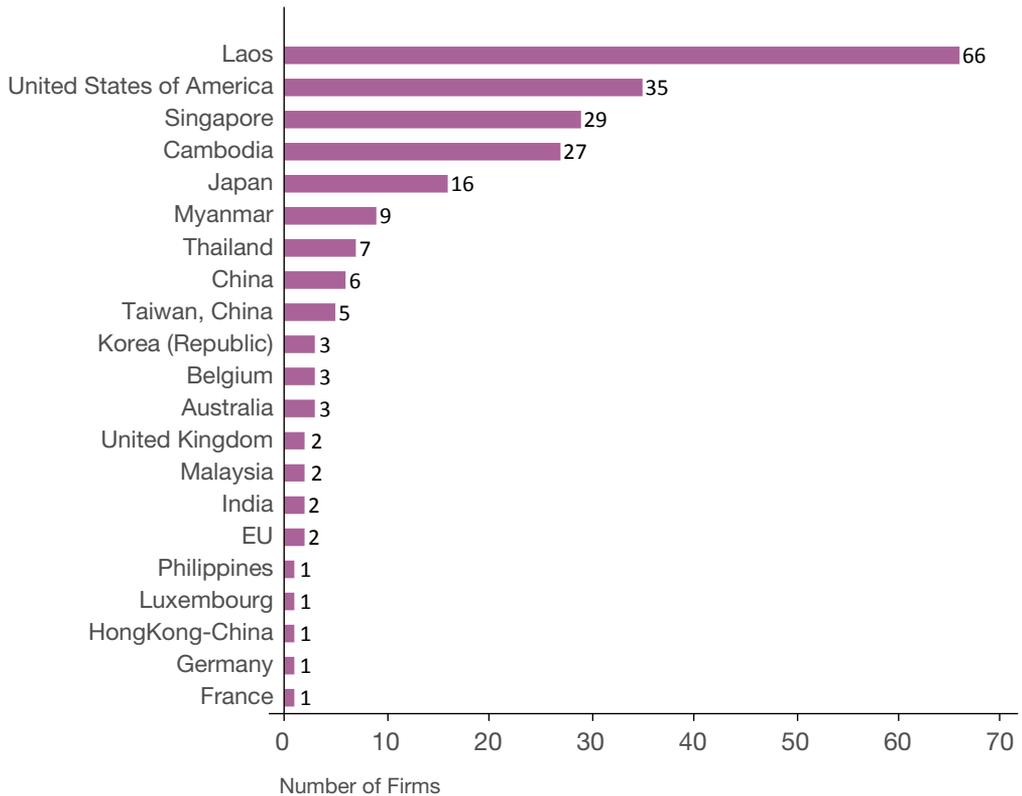
By looking at what firms have revealed as mattering most to them when considering expansion, local governments can better identify their own advantages and limitations and formulate policies to attract additional investment.

As Table 1.2 shows, most enterprises chose HCMC or Ha Noi for these two cities' business opportunities (81-85 percent) or market size (74 percent), while good governance was only responsible for attracting 29 percent of investors to HCMC and 22 percent of investors to Ha Noi. However, in Da Nang – the city that has topped the PCI ranking seven times – good governance has helped this beach city to attract 65 percent of potential investors seeking to expand their operations, according to respondents. Lao Cai also has a good story to tell. This province, which is disadvantaged by its less favorable geography and poor infrastructure, also found its way to the top 10 provinces and cities for attracting investment. Firms that selected Lao Cai cited its favorable business environment and good governance among its biggest advantages, over the factors of infrastructure and labor quality.

**Table 1.2: Ten Most Attractive Destinations For Investment Expansion In Viet Nam**

No.	Province	2016 PCI Ranking	Performance Tier	Number of firms	Share of firms (%)	Share of firms checking Infrastructure (%)	Share of firms checking Governance quality (%)
1	TP HCM	8	High	662	19.1	42.5	29.1
2	Da Nang	1	Excellent	475	13.7	54.7	65.3
3	Ha Noi	14	High	334	9.6	41.0	21.9
4	Binh Duong	4	Excellent	186	5.4	59.1	43.7
5	Can Tho	11	High	97	2.8	50.5	14.4
6	Lao Cai	5	Excellent	68	2.0	28.8	33.3
7	Bac Ninh	17	High	67	1.9	41.8	26.9
8	Dong Nai	34	Mid-High	53	1.5	34.6	30.2
9	Hai Phong	21	High	52	1.5	28.9	13.5
10	Khanh Hoa	24	Mid-High	47	1.4	29.8	10.6

As a special feature in this year’s survey, aside from asking domestic firms to choose a new investment location among the provinces and cities within Viet Nam, the PCI report extended the survey to inquire about investment preferences when comparing Viet Nam with other countries. Given this option, 222 businesses said that they would choose to invest in other countries instead of expanding in Viet Nam. Topping the list of investment attractiveness was Laos (selected by 66 enterprises), the United States (35 enterprises), Singapore (29 enterprises), Cambodia (27 enterprises), Japan (16 enterprises), and Myanmar (9 enterprises).

**Figure 1.21: Potential Destinations of Vietnamese Investors**

Notably, in addition to the two main reasons of business opportunities and market size, good governance was also regarded as an important factor in attracting investment. Seventy-five percent of enterprises would choose Singapore, not only for its business opportunities, but also for its good governance. For Japan, the rate is 75 percent for business opportunities and 69 percent for good governance. This finding confirms that governance quality to create a fair business environment is a major determinant for attracting investment and strengthening economic development.

Vietnamese businesses wishing to expand to other countries, although representing only 6 percent of the total sample, reinforce the notion that governance and business environment are critical factors in their investment decisions.

## Conclusion

To conclude, the PCI 2016 continues to reveal positive signs for the business environment in Viet Nam. Optimism related to future business prospects has remained high over the last three years. Furthermore, the quality of economic governance in provinces experienced important developments. While stellar performance was limited to a select few provinces and cities in this year's ranking, remarkable improvements were observed in almost all provinces at the bottom tier. The report also shows, however, that much remains to be done by local governments to reduce time costs, facilitate land access and useage permissions, and strengthen businesses' confidence in Vietnamese legal institutions. Finally, analysis of 11 years of data has shown that improving economic governance toward a business-friendly and enabling environment is worth the effort in both the near- and long-term, especially provinces with poor endowments of infstructure and proximity to major markets.

2016





# THE FOREIGN INVESTMENT SURVEY

## 2.1 INTRODUCTION

In 2016, Viet Nam remained among the hottest locations for foreign direct investors. According to *fDi Intelligence*, a division of the *Financial Times*, Viet Nam ranked first in 2015 among all emerging economies in its Greenfield FDI Performance Index for the second straight year. The organization calculates the ranking based upon a simple ratio of a country's global share of new investment capital to its global share of GDP. Viet Nam's score is 6.45, meaning that, in 2016, it attracted over six times more new investment capital than one would expect given its share of global output, placing it substantially above its nearest competitors (Hungary, 4.32; Romania, 3.48; Malaysia, 2.86; and Thailand, 2.43), and far ahead of China (0.41).<sup>20</sup>

The message is clear: Viet Nam punches far above its weight in the global investment game, attracting far more investment than its level of development would predict. In an

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<sup>20</sup> Barklie 2016

exuberant article in the *Wall Street Daily* titled, “It’s Time to Invest in Viet Nam,” Carl Delfeld proclaimed, “Looking over the world right now, the best market I can find is Viet Nam .”<sup>21</sup>

Investment figures for 2016 demonstrate that investors are acting on their optimism. According to Viet Nam’s General Statistical Office (GSO), Viet Nam licensed 2,556 projects with a total registered capital of \$15.2 billion. The amount of new investment represents a 27 percent increase over 2015. Among these new entrants were Samsung Electronics Company Ltd.’s \$300 million R&D Center and Zincox Resources’ \$115 million steel plant. These large projects, however, are not the norm. While the number of projects has increased, total capital invested declined by 2.5 percent, which indicates that, for the second straight year, average project size declined.

The vast majority of the new projects were aimed at manufacturing, especially garments, electronics, and food processing, but a sizable number also entered the service sector, including real estate, health, and education projects. South Korea (828) and Japan (341) alone accounted for nearly half of the new projects, followed by the other Asian investors of China (278), Singapore (210), Taiwan-China (122), and Hong Kong (166).<sup>22</sup>

In addition to the greenfield investment, a large number of existing investors expanded their investments. According to the GSO, 1,225 previously licensed projects applied to adjust their investment licenses, representing a \$5.8 billion in expanded investment.<sup>23</sup> These expansions represent additional votes of confidence in the Vietnamese market. Examples of such projects include Nestle’s \$70 million investment in its sixth new factory and LG Display’s doubling of its manufacturing capacity with a \$1.5 billion expansion.

Further positive signs are visible in the share of realized investment of \$15.8 billion, up 9 percent from 2015 and the highest level of aggregate implementation recorded during the Vietnamese reform era.<sup>24</sup> As a large number of Vietnamese economic analysts have indicated, disbursement rates are one of the most important signs of faith in the Vietnamese market. Licensed FDI numbers can be inflated by investors wishing to impress domestic decision makers and by local politicians wanting to claim credit for creating attractive investment environments. In addition, foreign investors often enter the Vietnamese market incrementally, obtaining a large investment license to provide them room for growth, but allocating the investment slowly over time. This gives investors time to learn about the Vietnamese market and develop faith in its institutions.

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21 Delfeld 2016

22 GSO 2017

23 GSO 2017

24 GSO 2017

For these reasons, many projects never allocate the full amount of pledged capital. According to Prof. Nguyen Mai, Chairman of the Viet Nam Association of Foreign Investment Enterprises, less than half of the \$300 billion FDI that Viet Nam has licensed since its first foreign investment law in 1987 has been realized.<sup>25</sup> As a result, the sharp uptick in FDI disbursement this year represents an important turning point in Viet Nam's economic development trajectory.

As we highlight in this chapter, a successful FDI policy is about far more than just attraction; it is also about creating an enabling environment that allows FDI to contribute to the broader economy. Here, there are positive signs as well. Export turnover by Foreign Invested Enterprises (FIEs) totaled \$123 billion, just under a 12 percent increase from the prior year, and accounting for nearly 70 percent of the country's export turnover. Although it is difficult to link conclusively, FDI also appears to be playing a role in increasing labor productivity in the general economy, which now accounts for an output of \$3,853 per worker. This represents 5.3 percent growth from 2015.<sup>26</sup>

What accounts for these remarkable figures? Analysts point out that economic activity always picks up in the year after the distractions of a Party Congress and new policy-makers assume leadership responsibilities. Other analysts, such as Carl Delfeld,<sup>27</sup> have cited Viet Nam's tremendous investments in infrastructure and connectivity over the past few years. Still others point to Viet Nam's excellent demographics with a large, literate, working age population and relatively low labor costs. Certainly, in past PCI reports we have documented the importance of labor costs and labor quality on investors' selection of Viet Nam over its competitors.<sup>28</sup>

Far less attention, however, has been paid to the ongoing economic reform efforts, which were initiated at the end of the Nguyen Tan Dung administration and have been continued and expedited since Nguyen Xuan Phuc took office. Although controversial, legal experts have heralded these changes. Cooper and Pham (2015), for instance, in an excellent review of the 2014 Enterprise<sup>29</sup> and Investment<sup>30</sup> Laws conclude:

This new regulatory landscape is clearly the most favourable for foreign investment in Viet Nam since the beginning of the economic reforms process. It also appears that despite all the remaining challenges and issues, the two new laws are considered the most liberal and investor-friendly in the region.<sup>31</sup>

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25 *VLLF 2016b*

26 *GSO 2017*

27 *Delfeld 2016*

28 *Malesky 2016*

29 *Nguyen 2014a*

30 *Nguyen 2014b*

31 *Cooper and Pham 2015: 5*

Oscar Mussons of Dezan Shira & Associates expands on these views, arguing that, next year, Viet Nam will start to “collect the fruits of having a more structured and competitive business legislation, which is having an impact on attracting more FDI and also helping Viet Nam become one of the major manufacturing hubs in the world.”<sup>32</sup>

In this year’s report on the PCI-FDI survey, we study the perceptions and experiences of investors in regard to four of the most important reform initiatives: 1) improvements in registration and licensing that have expanded the opportunities for foreign investors; 2) attempts to reduce the structural biases toward state owned enterprises through legal reform and equitization; 3) efforts to increase policy predictability and transparency through the Law on Access to Information;<sup>33</sup> and 4) efforts to combat corruption. We document significant and even startling improvements in the reduction of entry costs and reductions in corruption, but find efforts to reduce post-licensing regulatory burdens, increase transparency, and reduce bias in favor the state sector have yet to bear fruit.

The 2016 PCI-FDI survey covers the responses of 1,550 businesses from 46 different countries whose operations are located in the 14 Vietnamese provinces with the highest concentrations of foreign invested enterprises. As with the survey of domestic firms, the PCI-FDI respondents were selected from the General Tax Department (GTD) list. While the PCI-FDI survey is not the only profile of foreign investment in Viet Nam, it is the largest and most comprehensive. In fact, the number of respondents in the PCI-FDI module accounts for 8.2 percent of the entire population of foreign invested projects (19,277) that have registered in Viet Nam since 1988.<sup>34</sup>

This remainder of this chapter is divided into six sections. In Section 2.2, we explore the performance of FIEs in the past year, showing increases in optimism and expansion. In Section 2.3, we profile FIEs in Viet Nam, finding that they are predominantly from neighboring Asian countries (especially Taiwan-China, South Korea, and Japan), are relatively small in both employment and investment size, have the majority of their operations in low-end manufacturing, and are primarily interested in the export market for goods. Section 2.4 studies regulatory risk. Section 2.5 looks at bias in favor of the state owned sector. Section 2.6 focuses on FIEs’ perceptions of access to information and Section 2.7 examines the government’s efforts to reduce corruption.

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<sup>32</sup> *Jennings 2017*

<sup>33</sup> *VLLF 2016a*

<sup>34</sup> *GSO 2015*

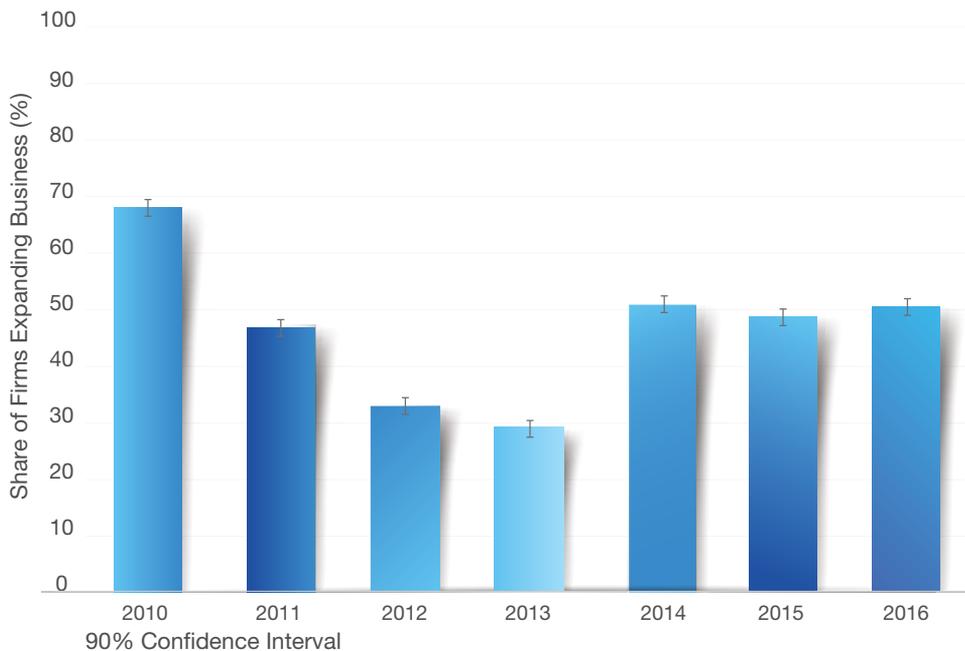
## 2.2. PERFORMANCE OF FOREIGN FIRMS IN 2016

Consistent with trends observed over the two previous years, FIEs in the PCI-FDI survey remain positive about their investment prospects. Table 2.1 shows that, in 2016, 11 percent of FIEs increased their investments in existing operations and 63 percent added new employees to their payrolls. These numbers are nearly identical to 2015 levels and show significant improvement from the doldrums of 2012 and 2013. These figures are also consistent with the aggregate data on investment realization cited above. Sales, measured in inflation-adjusted dollars, remain low compared to earlier periods, but total business expenditures are down from previous years. As a result, 59 percent of foreign investors self-report profits - the highest number since 2013.

**Table 2.1: Performance of Foreign Firms over Time**

Year	Firms Increasing Investment (%)	Firm Adding Employees (%)	Firms Reporting Profits (%)	Firms Reporting Losses (%)	Median Sales (Millions of 2010 USD)	Median Expenditures (Millions of 2010 USD)
2010	37.3	54.0	70.1	24.6	1.0	0.8
2011	27.8	47.1	73.9	20.5	1.4	0.7
2012	5.1	32.2	60.0	28.0	1.5	1.0
2013	5.1	33.4	64.1	23.8	1.4	0.9
2014	16.3	65.1	57.9	34.3	1.1	0.7
2015	11.3	62.4	55.0	37.8	0.7	1.4
2016	11.0	63.3	59.0	33.4	0.7	0.5

Furthermore, foreign investors remain cautiously optimistic according to the annual PCI-FDI Business Thermometer. Figure 2.1 reports that 50.6 percent of investors plan to expand their operations over the next two years. This number is nearly the same as the shares recorded in the past two PCI-FDI surveys, suggesting that confidence has plateaued. Nevertheless, investors are far more confident than during the 2012-2013 slump, yet have not returned to the heady optimism of 2010.

**Figure 2.1: PCI-FDI Business Thermometer**

Source: PCI-FDI Survey Question A12, “Which statement best characterizes your firm’s investment plans over the next 2 years?” Figure reports the percentage of firms that responded that they will increase or considerably increase operations.

## 2.3. CHARACTERISTICS OF THE FIE RESPONDENTS

As we have reported in previous years, the typical FIE in Viet Nam remains relatively small, export-oriented, and operates a low-margin business that is subcontracting to a larger multinational producer—and is therefore usually situated among the lowest nodes of a product’s value chain.

**Size:** Foreign operations in Viet Nam are growing, but remain quite small by international standards. The median size of an FIE is about 125 employees, and 81.5 percent of FIEs in Viet Nam have fewer than 300 employees. Indeed, 44.8 percent of FIEs have fewer than 50 employees. As Table 2.2 shows, this share of small FIEs has increased over time, consistent with aggregate data. As the number of projects has increased in Viet Nam, the average size of the ventures continues to decline. A few sizable operations are represented in the PCI survey; about 95 operations have over 1,000 employees. We find similar results when we disaggregate by equity—the median operation has \$1.2 million and 71 percent of FIEs have licenses for operations that are less than

\$2.5 million. Consistent with 2014, 6 percent of the sample is licensed for investments greater than \$25 million. More importantly, capital and employment size do not appear to be increasing over time. The size distributions have remained quite stable since 2010, and, in fact, have declined slightly.

**Table 2.2: Size of Foreign Firms over Time**

Employment Size: Percent of Firms with Employment of								
Year	Less than 5	5 to 9	10 to 49	50 to 199	200 to 299	300 to 499	500 to 1000	1000 and over
2012	2.5	7.7	27.4	29.1	9.9	8.4	8.1	7.0
2013	3.7	5.4	28.4	30.3	9.5	7.9	8.5	6.3
2014	5.4	8.4	29.2	29.6	6.5	7.7	6.9	6.4
2015	5.8	9.3	31.1	27.4	6.5	7.1	6.8	6.0
2016	5.9	9.7	29.2	29.8	6.9	7.3	4.9	6.3

Equity Size: Percent of Firms Reporting Equity of								
Year	Under 0.5 BVND (\$25,000)	0.5 to under 1 BVND (\$50,000)	1 to under 5 BVND (\$250,000)	5 to under 10 BVND (\$500,000)	10 to under 50 BVND (\$2.5 million)	50 to under 200 BVND (\$10 million)	200 to under 500 BVND (\$25 million)	500 BVND (\$25 million)
2012	2.2	4.2	14.8	17.1	29.4	19.5	6.8	6.0
2013	2.5	4.2	15.7	19.1	31.3	16.4	6.1	4.7
2014	5.6	5.5	13.9	15.5	30.8	16.8	6.4	5.5
2015	6.0	6.1	17.5	17.0	25.7	15.8	6.3	5.6
2016	7.0	3.5	16.3	13.3	31.6	17.0	5.8	5.7

BVND=Billions of Vietnamese Dong; \$=United States Dollars

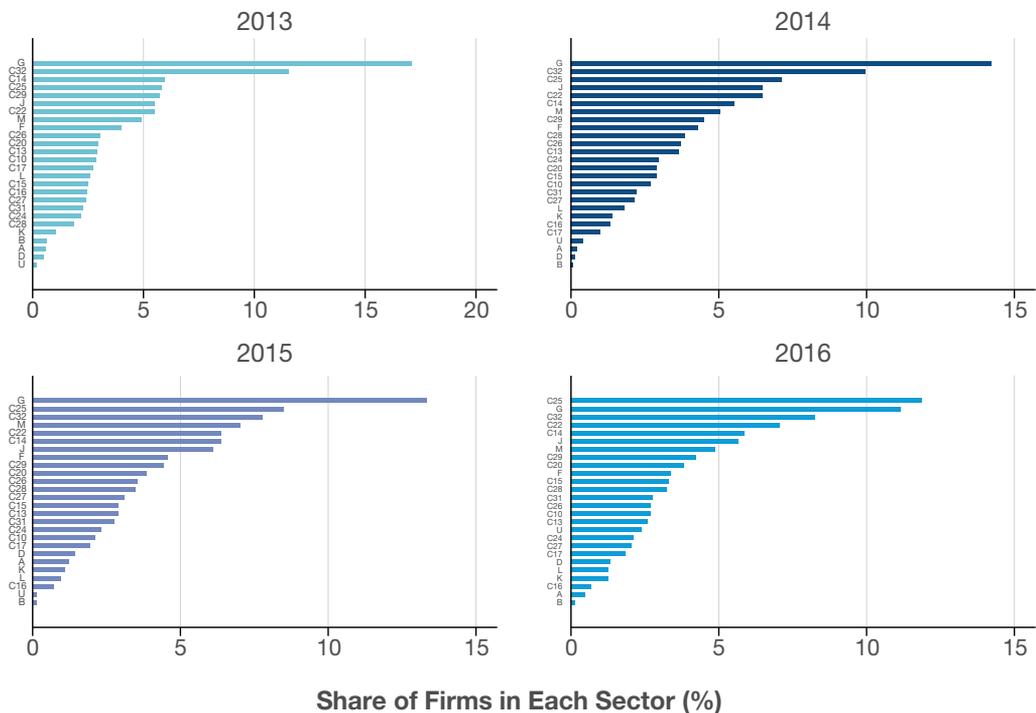
*Type of Investor:* Over 89 percent of the FIE respondents indicate they are wholly foreign-owned, up from 87 percent in 2015. Only 7 percent of respondents are in joint ventures. Less than 6 percent are registered as domestic operations.

The low number of foreign investors in domestic operations is likely to change over time. One interesting feature of the 2014 Investment Law is that an Investment Registration Certificate (IRC), the law's substitute for an investment license, is not required for firms with over 51 percent local ownership. The Vietnamese government considers firms above that level to be domestic investors and does not require them to complete foreign

investment registration procedures.<sup>35</sup> Moving forward, analysts should keep track of the share of foreign firms registered treated as domestic operations in order to assess the impact of the new investment procedures. As more and more foreign investors take advantage of the new procedures to merge with and acquire successful Vietnamese operations, we are likely to see this category increase.

*Sector:* As Figure 2.2 shows, there has been remarkable stability in the main foreign invested sectors over time. In 2016, 67 percent of FIEs are in manufacturing, while only 33 percent of FIEs operate in services and other sectors. Activity in manufacturing is extremely diverse, however. No particular type of manufacturing is particularly dominant in the economy. Dissecting manufacturing more precisely, we find that the three biggest sectors within general manufacturing in 2016 continue to be fabricated metal products (12.3 percent), rubber and plastics (7.3 percent), and apparel (6 percent). Manufacture of motor vehicles, chemical products, leather, other machinery, and furniture follow with about 4 percent of the sample each. The most populated service sectors are wholesale and retail trade (11.5 percent), information and communications (5 percent) and professional and scientific activities (5 percent).

**Figure 2.2: Sectoral Distribution of Foreign PCI respondents**



ISIC: Sector Codes		Subdivisions of Sector C (Manufacturing): 2 Digit Level			
A	Agriculture, forestry and fishing	10	Manufacture of food products	25	Manufacture of fabricated metal products, except machinery and equipment
B	Mining and quarrying	12	Manufacture of tobacco products	26	Manufacture of computer, electronic and optical products
C	Manufacturing	13	Manufacture of textiles	27	Manufacture of electrical equipment
D	Electricity, gas, steam, and air-conditioning supply	14	Manufacture of wearing apparel	28	Manufacture of machinery and equipment n.e.c.
F	Construction	15	Manufacture of leather and related products	29	Manufacture of motor vehicles, trailers and semi-trailers
G	Wholesale and retail trade; repair of motor vehicles and motor cycles	16	Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials	31	Manufacture of furniture
J	Information and communication	17	Manufacture of paper and paper products	32	Other manufacturing
K	Financial and insurance activities	19	Manufacture of coke and refined petroleum products	32	Other manufacturing
L	Real Estate Activities	20	Manufacture of chemicals and chemical products		
M	Professional, scientific and technical activities	22	Manufacture of rubber and plastics products		
U	Activities of extraterritorial organizations and bodies	24	Manufacture of basic metals		

*Customers:* Table 2.3 studies the major customers of FIEs over time by looking at the share of firms that have at least one customer from each category. The overwhelming majority are either purchasers of exports (to the home country or third parties), other foreign companies, or private individuals and firms in Viet Nam . This pattern suggests multinational supply chains comprise a great deal of the customer base for FIEs in Viet Nam. Sales to state-owned enterprises (SOEs) and state agencies remain low.

In past years, the PCI-FDI survey asked whether foreign firms sold domestically to foreigners or Vietnamese, but was not clear about whether those sales were to citizens or firms. Clearly, the groups represent very different markets. In 2016, the customer question was sharpened to differentiate between individuals versus enterprises for sales to both Vietnamese and foreign customers living in Viet Nam . The disaggregation is now visible in the last row of the table. Importantly, the distributions are inverted. For foreign companies targeting Vietnamese customers, 41 percent sell to individual consumers, while only 19 percent have sold products or services to Vietnamese companies. By contrast, 53 percent of sales to foreigners in Viet Nam are to other foreign enterprises, which is a strong indication of the presence of supply chains within the country. Many foreign investors in Viet Nam offer goods and services to larger foreign investors that serve as anchor companies the supply chain. Only 13.5 percent of companies target foreign individuals living in Viet Nam for sales.

**Table 2.3: Customers of Foreign Invested Firms  
(Percent Share with at Least one Customer):**

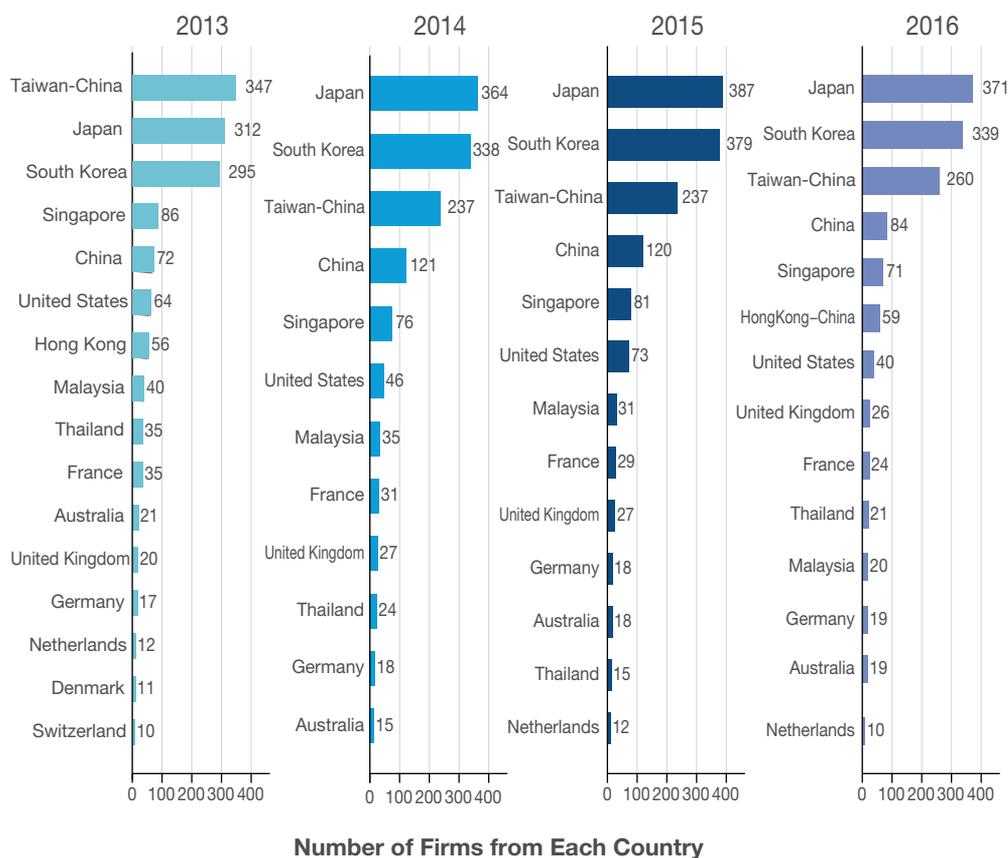
Year	Sales to Vietnamese State		Exports	
	SOEs (%)	Agency (%)	Home (%)	Third Country (%)
2010	10.4	4.0	49.9	9.8
2011	7.9	6.8	40.5	3.8
2012	13.0	5.3	32.6	28.3
2013	16.6	6.3	33.9	39.6
2014	12.6	5.1	36.7	28.7
2015	13.7	4.1	39.5	32.6
2016	11.7	4.9	38.5	33.7

Year	Sales to Foreigners in Viet Nam			Sales to Private Vietnamese		
	Individual (%)	Both (%)	Enterprise (%)	Individual (%)	Both (%)	Enterprise (%)
2010		28.3			29.0	
2011		15.6			38.3	
2012		25.3			41.4	
2013		35.7			49.1	
2014		45.7			38.8	
2015		51.6			40.2	
2016	13.6		52.9	41.4		18.6

*Country of Origin:* As in previous years, we find that investors from East Asia dominate the PCI-FDI sample (see Figure 2.3). Investors from South Korea, Taiwan-China, Japan, Singapore and mainland China account for 68 percent of the active businesses surveyed. When we add investors from neighbors in Southeast Asia, the figure passes 80 percent. These numbers correspond closely to the calculations made by the Ministry of Planning and Investment (MPI) and GSO.<sup>36</sup> Sizable numbers exist for Western investors as well. US representation in the survey declined noticeably this year with only 40 investors participating compared to 70 in recent years. This may not indicate a reduction in US enthusiasm for Viet Nam, however. It is important to note that a great deal of U.S. investment is listed as originating in Hong Kong and Singapore for a variety of logistical and tax-based reasons; thus, U.S. investment is very likely understated.

**Figure 2.3: Respondents by Country, 2013-2016**



## 2.4. REGULATORY BURDEN

In last year's PCI Report, a sizeable number of investors cited regulatory risk as one of their top three concerns, with 20.5 percent listing it as their primary issue. Apprehensions about regulation have escalated over time; the comparable figure was only 15 percent in previous years.<sup>37</sup> We can divide Viet Nam's regulations into two general categories. The first set covers regulations that govern entrance into the market, such as registration and licensing. The second set comprises post-entry regulations that govern the operations of investors. As we detail in the next chapter, many of the second set have important public interest considerations, such as environmental protection, health and sanitary standards, fire safety, and labor rights. Others have more dubious social or economic motivations, such as regulations covering storefront signage or rules about foreign language use in marketing.

The 2014 Enterprise Law and 2014 Investment Law along with their implementing documents made remarkable changes to the first category of regulations. The government has yet to fully address business concerns associated with the second group.

### *Entry Regulations*

In terms of pure time costs, legal analysts consider Decree 78, issued on November 1, 2015, to be extremely influential.<sup>38</sup> The document expedited foreign entry by facilitating online registration and significantly reducing required documentation. Importantly, the decree expressly prohibited registration authorities from requesting documents that are not required by law in the registration dossier. Finally, the decree reduced the timeline for receipt of an Enterprise Registration Certificate (ERC) after submission of a valid ERC application from five to three days.

Beyond these mechanical changes, however, Cooper and Pham (2015) insist that the biggest change for foreign investors in these documents is the philosophical embrace of the "freedom of enterprise" of foreign investors, which has manifested itself in two ways. First, foreign investors now have much more autonomy to engage in business activities not specifically listed in their ERC, as long as such activities are not prohibited or restricted by the law.<sup>40</sup> This allows investors to be more responsive

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<sup>37</sup> Malesky 2016

<sup>38</sup> Nguyen 2015b

<sup>39</sup> Cooper and Pham 2015

<sup>40</sup> Formal notification of provincial authorities, however, is still mandatory

to the Vietnamese market, altering their services and goods to the changing needs of Vietnamese consumers and endowments without risking legal violations for engaging in unregistered activities. In the past, foreign investors tried to achieve this same level of responsiveness by listing all the activities that might potentially be of interest, whether or not these projects were in their immediate business plans. This shotgun style approach ended up tremendously increasing the paperwork and time necessary to complete registration procedures. Even worse, if any of these potential activities were in restricted sectors, additional licensing and paperwork was required.

Second and even more importantly, the 2014 Investment Law shifted the country from a “positive list” to a “negative list” approach to regulating foreign investment.<sup>41</sup> Before 2015, investors could only operate in a list of specific sectors specifically outlined by the law. Foreign investors could not enter 57 sectors that were prohibited due to national security reasons, while 386 sectors were deemed restricted and required special licensing procedures and central permissions to enter that increased the time and costs of engaging in the project. Research has also shown that the artificial monopolies granted by the arrangement increased the informal costs of entering these markets.<sup>42</sup> After July 2015, new implementing legislation allowed investors to freely enter many more sectors. In practice, this dropped the list of prohibited sectors from 51 to 6 and reduced the list of conditional sectors from 386 to 267.<sup>43</sup>

As a result of these changes, Table 2.4 illustrates that regulation of entry is no longer a tremendous burden for foreign investors. The table displays all respondents to the PCI-FDI survey between 2010 and 2016, calculating their answers by the year they first applied for the license. The later years have lower respondents, as many of these firms were too new to be recorded in our sampling frame from the GTD. Because the survey picks up only 16 respondents licensed in the first half of 2016, we combined their answers with those of the 2015 firms to achieve a more reliable sample. On several key measures, regulatory costs continue to decline. Over 90 percent of firms were able to obtain all the documentation they need to operate legally within three months of starting the procedures. According to our data, this is the highest share ever achieved in Viet Nam, up dramatically from the five previous years. In fact, just over 40 percent of firms in 2015 and 2016 were fully legal within a month. Median waiting periods for Investment Registration Certificates (IRCs), tax codes, and ERCs are now 35, 21, and 25 days, respectively. Beyond that, only 38 percent of firms were required to obtain additional documentation, which on average consists of just under two additional pieces. This number again is down from the previous years. Finally, the median formal

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41 *ITA 2016*

42 *Malesky, Gueorguiev, and Jensen 2015*

43 *ITA 2016*

fee for entry documentation is \$1000, which represents a 50 percent reduction from 2010 to 2014. Because of the wide variance in this measure, we also include the low end (25th percentile) and high end (75th percentile) for comparison.<sup>44</sup>

**Table 2.4: Entry Regulations for Foreign Firms**

By Entry Year	Number of Firms	Fully Legal within 3 Months (%)	Additional Documents Required (%)	Final Cost of Registration Procedures US Dollars			License and Registration Issued Concurrently (Mean)
				25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	
2000	301	89.0	37.3	300	1000	2100	0.7
2001	349	89.1	32.2	300	1000	5000	0.7
2002	552	89.1	35.0	200	1000	5000	0.8
2003	473	89.6	33.9	200	1000	3250	0.8
2004	417	88.5	29.1	250	1775	5000	0.8
2005	642	87.5	34.1	500	1950	5000	0.8
2006	682	82.8	35.2	400	2000	5000	0.8
2007	868	84.3	33.3	500	2000	5000	0.7
2008	692	85.7	33.7	500	2000	5000	0.8
2009	432	82.9	35.5	500	2000	5000	0.8
2010	463	79.0	36.4	500	2000	5000	0.7
2011	436	77.8	40.6	500	2000	8000	0.8
2012	263	78.3	44.8	200	1150	5000	0.8
2013	283	79.9	42.9	300	2000	5500	0.8
2014	227	83.3	46.2	150	2000	5000	0.7
2015 & 2016	66	90.9	38.4	18.5	1000	3000	0.6

2015 and 2016 are combined to provide a larger and more reliable sample of firms.

<sup>44</sup> One concern that the PCI-FDI team is tracking is the increasing variation in costs. Although, the average fees are declining, some firms report paying tremendous amounts. Three respondents cited formal charges of over \$1 million and one firm reports costs of over \$3 million.

A final interesting item is the share of firms that had their license and registration issued concurrently has now dropped to a historical low of 64 percent. This drop results from a change in the 2014 Investment Law that reversed previous efforts to unify the two documents and thereby ease entry by creating a one-stop shop. The 2005 Investment Law formally initiated concurrent issuance, but pilot efforts had existed before that, especially at the provincial level. After 10 years of the policy, however, it became clear that concurrent issuance was actually slower than issuing the two documents separately for some firms. In particular, investors attempting to acquire domestic companies felt it delayed the merger process. Moreover, existing investors wishing to alter or expand business activities were obligated to adjust their investment license because of its connection to registration, which made expansion and entry into new markets extremely burdensome. Removing dual issuance, while simultaneously expediting ERC issuance, is part of an effort to address these concerns.<sup>45</sup>

### *Post-Entry Regulations*

While entry to the Vietnamese market is now streamlined, foreign firms are still extremely concerned about post-entry regulations. Two indicators in the PCI-FDI survey are useful for capturing the full regulatory burden faced by foreign enterprises in the country: 1) the share of the top manager's time spent complying with business regulations; and 2) the number of inspections by regulators that the firm experienced in the past year.

Table 2.5 studies the first of these issues by looking at a PCI-FDI question that asks firms to indicate what percentage of their time is spent annually complying with administrative procedures. In 2016, 72 percent of firms answered that they spend over 5 percent of their time on such activities, which means time away from managing and growing their business. This figure is markedly higher than the historical low of 56 percent achieved in 2010. Interestingly, there is very little variation in responses to these questions across provinces or sectors, which all average around 70 percent.

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<sup>45</sup> Cooper and Pham 2015

**Table 2.5: Post-Entry Regulations for Foreign Firms**

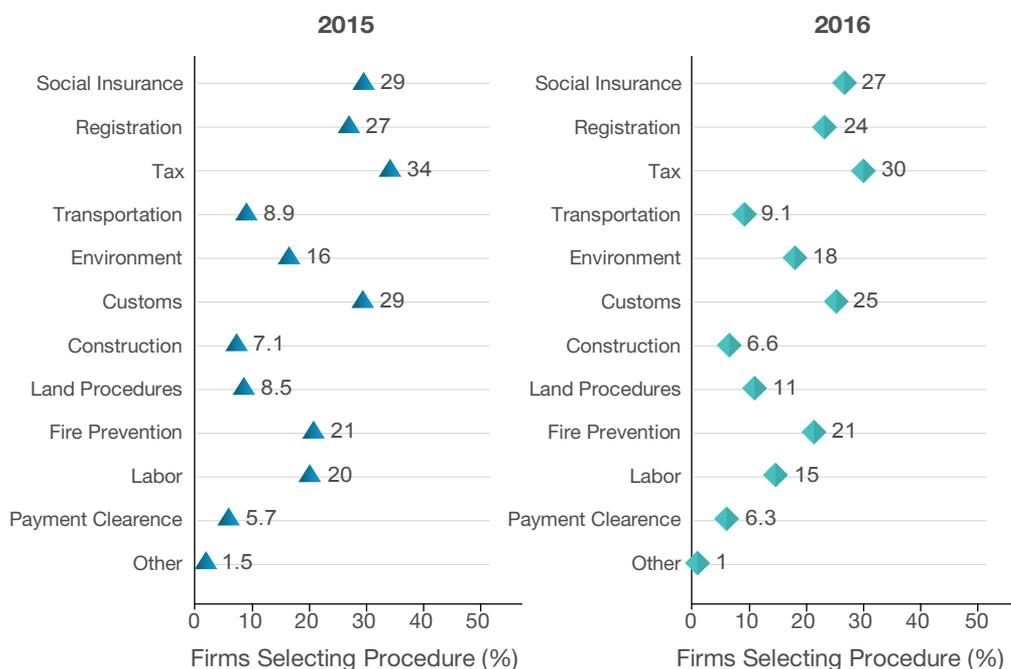
By Year	Over 5% of Time Spent on Bureaucratic Procedures (%)	Inspections (Mean)	Harrassment (Firms experiencing 8+ Inspections) (%)	Days for Exports to Clear Customs (Median)	Days for Import to Clear Customs (Median)
Question	E3>=2	E1	E1	F7	F8
2010	56.6	2	28.0	1	2
2011	68.1	2	15.9	1.5	2
2012	79.4	2	2.9	2	2
2013	77.8	2	2.7	2	2
2014	70.2	2	3.3	1	2
2015	69.8	2	2.9	1	2
2016	71.9	2	4.5	1	2

Table 2.5 further demonstrates that for the vast majority of firms, inspections are not a very big burden. The average firm experiences about two examinations per year and this number has not changed much over time. Even at the high end, inspections do not appear to be overwhelming for the vast majority of FIEs. Ninety-five percent of firms experienced fewer than eight inspections this year. Where the table does illustrate cause for concern is that, each year, there are a large number of extreme values, where a small number of operations experienced harassment (defined as more than eight inspections over the course of a year). This number appears to be increasing dramatically. In 2016, for instance, seven firms were inspected over 20 times and one operation had 50 separate inspections. Harassment does not vary much across sectors, but was concentrated among medium to large FIEs. A firm with over 500 employees had a 10 percent probability of being in the extreme inspection group, and a one-point increase on the eight-point employment size scale in the PCI-FDI survey increases the probability of inspection by 8 percent. A similar pattern was observed for size measured by the monetary value of the investment license.

Figure 2.4 shows the share of firms selecting a particular procedure as most burdensome. The figure shows that the most cited procedures are related to taxes (including the handling of VAT receipts), social insurance (required in the 2014 Law on Social Insurance), and customs procedures. Importantly, the share of firms selecting all of these procedures has declined since 2015. These improvements represent efforts made in accordance with Resolution 19/2015/NQ-CP to simplify and streamline

administrative procedures. This is especially true of customs obligations, which were a focus area of the document.<sup>46</sup>

**Figure 2.4: Burden of Administrative Procedures (by Agency)**



Source: PCI-FDI Survey Question D4: “From your experience in the province, please indicate the administrative procedures you find troublesome.”

## 2.5. BIASES IN FAVOR OF STATE OWNED ENTERPRISES

There are 2,000 SOEs in Viet Nam in which the state retains a majority interest and 781 SOEs where the state holds 100 percent of shares.<sup>47</sup> While the number of SOEs is a mere fraction of the 400,000 private firms, the state sector accounts for about one third of GDP and 10 percent of the adult labor force. Studies have demonstrated that SOEs are economically inefficient, but benefit from privileged access to natural resources, capital, land, and government procurement.<sup>48</sup>

46 Nguyen 2015c

47 WB 2016

48 Nguyen 2015a

These benefits are thought to be distortionary, crowding out productive private and foreign investment.<sup>49</sup> The literature documenting barriers to entry in SOE-dominated sectors in Viet Nam focuses on five factors.<sup>50</sup> First, certain sectors face formal restrictions for purported national security reasons. These sectors require special approval from the Prime Minister's Office to receive an investment entry license. While provinces can locally register any investment up to a specified amount, restricted projects still require central approval and the Prime Minister's signature.<sup>51</sup> One frustration for foreign firms is that SOEs have been able to use these protected enclaves to cross-subsidize their expansion into mixed sectors. Second, many SOEs operate in capital-intensive sectors for which private firms currently do not have the scale or access to capital necessary to compete. Utilities, shipbuilding, and steel and cement production are all industries that are formally open but actually feature little private activity.<sup>53</sup> Third, it has been shown that access to credit is greater when firms have close connections to the party and government. Even after the dramatic growth of the private sector in 2013, roughly 60 percent of lending by the state-owned banking sector in 2016 went to SOEs. Fourth, market access is easier for SOEs than for private firms,<sup>54</sup> particularly for government procurement. Researchers have observed that "government agencies and state-owned enterprises prefer to do business with SOEs, which forces private firms to sub-contract to SOEs rather than sell directly."<sup>55</sup> Fifth, previous studies have found that for land use right certificates, private firms face processing times that can be up to two hundred times greater than those faced by SOEs.<sup>56</sup>

Figure 2.5 shows that foreign firms remain concerned about bias toward state owned enterprises (SOEs) in the Vietnamese economy. While the share has dropped marginally since 2014, roughly 68 percent of foreign firms still believe that there is an unfair preference toward SOEs.

To address the problems, Viet Nam's government pledged to equitize (convert to joint stock companies) over 400 SOEs in 2014.<sup>57</sup> This ambitious plan was not met, but Prime Minister Phuc indicated a desire to rectify these problems and move forward. Continued equitization of SOEs and reductions in their soft budget constraints derived from biased land and capital access will go a long way toward resolving this structural

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49 *Vu-thanh, forthcoming*

50 *WB 2016*

51 *Cooper and Pham 2015; Malesky, Gueorguiev, and Jensen 2015*

52 *Nguyen and Freeman 2009*

53 *Coxhead and Phan 2013*

54 *Nguyen and Freeman 2009*

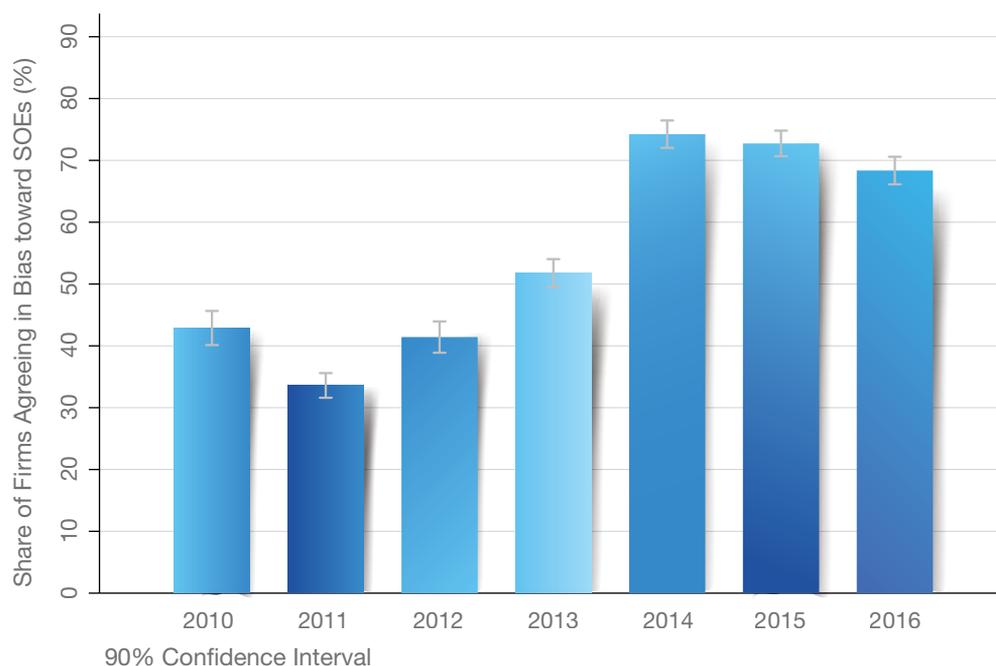
55 *Pincus et al. 2012: 10*

56 *Pincus et al. 2012*

57 *WB 2016*

barrier. Similarly, pledges by Viet Nam's leadership to limit the ability of SOEs to operate outside of their core competencies and cross-subsidize businesses in non-strategic sectors will further liberate the Vietnamese economic environment.

**Figure 2.5: Percent Share of Foreign Firms Agreeing There is Bias in Favor of SOEs**



Source: PCI-FDI Survey Question J23 "Do you agree with the following statement "The provincial authorities favor state owned enterprises." Line graphs report the average of a five-point scale for both questions: 1) Strongly Agree; 2) Agree; 3) Disagree; 4) Strongly Disagree.

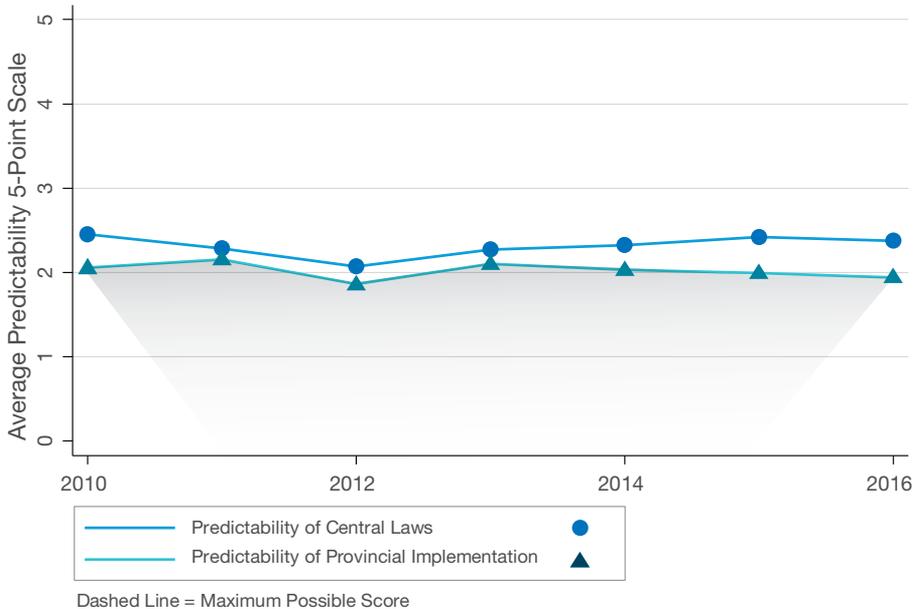
## 2.6. ACCESS TO INFORMATION

Since 2005, the PCI research team has strongly advocated for access to new laws, implementing documents, and provincial decisions as way of enhancing business performance. The transparency sub-index is consistently the highest weighted sub-index in the PCI because of its strong correlation with business entry, investment expansion, and business performance.<sup>58</sup> The Vietnamese government is certainly aware of the benefits of openness. On April 6, 2016, the Vietnamese National Assembly passed the Law on Access to Information, designed to enhance transparency in the country, but it will not be implemented until the summer of 2018. Consequently, we may be able to identify greater change in this area next year.

<sup>58</sup> Malesky, McCulloch, and Nhat 2015

In this section, we examine more closely the question of predictability, which is strongly affected by transparency policy. Predictability is critical because it cuts the transaction costs of information gathering, helps firms make more targeted investments, and reduces the probability of costly mistakes. Each year, the survey asks foreign investors to rate the predictability of central laws and provincial implementation of those laws on a five-point scale with five representing the highest level of predictability. The line graphs clearly demonstrate that predictability has effectively not changed since 2010. Predictability of the passage of laws averages between 2.0 and 2.4 throughout the period, while predictability of implementation averages a consistently lower 1.8 to 2.1. As a result, there is evidence that there is a great deal of room for improvement in the transparency of the policy-making environment. While both scores have improved marginally over time, there is little evidence to indicate substantive reform.

**Figure 2.6: Predictability of Laws and Regulations over Time**



Source: PCI-FDI Survey Question G3 “How predictable are changes in laws at the central level which affect your business?” & G4 “How predictable is the implementation of these rules, laws, and regulations at the provincial level?” Line graphs report the average of a five-point scale for both questions: 1) Never; 2) Seldom; 3) Sometimes; 4) Usually; 5) Always.

As predictability is partly a function of access to laws and documentation, we next study how foreign firms rate their ability to acquire information about key legal and planning documents that affect their businesses. As scholars have shown in other

work,<sup>59</sup> facilitating access to these documents has the largest substantive impact of any governance reform on increasing the growth of investment in Viet Nam. We evaluated the six most critical documents necessary for strategic planning on the part of foreign businesses. These are very similar to the documents we use to measure transparency in the Provincial Competitiveness Index for domestic firms in Transparency sub-index. For each document, we asked respondents to rate their ability to access the document on a five-point scale, ranging from Impossible (1) to Very Easy (5).

Access to two major types of legal documentation, especially central laws, ordinances, decrees, and official gazettes, has remained quite steady. The average foreign investor in Viet Nam believes access to these documents is possible, if not easy, to obtain. Notably, access to these documents was a requirement of the WTO and U.S.-Viet Nam Bilateral Trade Agreement (BTA). Due to domestic needs, and perhaps in anticipation of these agreements, Viet Nam's 1996 and 2002 revisions of Law on the Promulgation of Legal Documents (known as the Law on Laws) mandated timely publication of all legal normative documents.<sup>60</sup> Subsequent amendments in 2008 and 2015 have maintained these mandates and extended them to provincial People's Committees and Councils. Indeed, the Law on Laws actually insists upon the collection and posting of both national (Article 19) and provincial (Article 27) legal documents, including draft legislation. As a result, the information is readily available and there are few surprises.

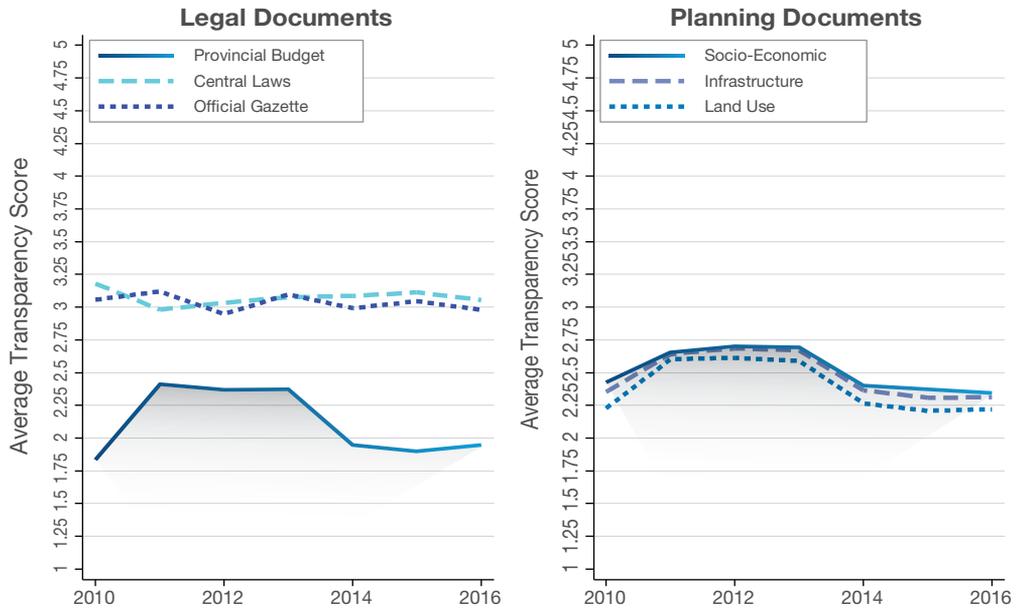
By contrast, much lower scores are observed in access to budget and planning documents as we observed above. These documents are not officially included on the list of documents required for publication by the Law on Laws. The divergence indicates how legal mandates can provide stability in access, and suggests FIEs would benefit from the specific inclusion of budgets and planning documents in the Law on Access to Information.<sup>61</sup>

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<sup>59</sup> Malesky, McCulloch, and Nhat 2015

<sup>60</sup> VLLF 2016a

<sup>61</sup> The revised State Budget Law, which took effect on January 1, 2017, includes a large number of transparency provisions. While it is too early for the law to affect this year's PCI scores, it should influence assessment of transparency in the near future.

**Figure 2.7: Transparency of Business Documentation over Time**

Source: PCI-FDI Survey Question G1: "Please rate your access to these provincial documents and information?" Bar graphs report the average of a five-point scale for all documents: 1) Impossible; 2) Difficult; 3) Possible; 4) Easy; 5) Very Easy.

Since provincial websites have been important conduits of transparency, the PCI-FDI survey asks specifically about access to information online. In Table 2.6, we present information on the share of firms that have accessed the provincial budget online and their opinion of the quality of that information. In keeping with general sentiment of foreign investors on transparency, the results are disappointingly low. Only 21 percent of FIEs have downloaded the provincial budget; of those, only 27 percent believed the quality of the information was good enough for their business purposes. That means that only 5 percent of foreign businesses in Viet Nam believe they have adequate budget information to plan for the future. The shaded panel of the table studies the other documents that firms have chosen to access online. Provincial regulations and legal documents stand out as the most frequently downloaded.

**Table 2.6: Online Access to Business Information for FIEs**

Online Budget Access by FIE			Documents Accessed by FIE				
Year	Accessed Provincial Budget (%)	Information Good (%)	Investment Incentives (%)	Provincial Regulations (%)	Planning Documents (%)	Guiding Documents (%)	Provincial Legal Documents (%)
2013	24.8	25.9	33.7	49.7	23.8	33.2	39.0
2014	24.0	32.6	36.8	58.8	17.8	26.8	44.4
2015	22.7	28.8	39.9	64.3	19.5	30.5	47.4
2016	21.1	27.0	34.3	61.5	15.4	23.5	43.4

## 2.7. EXPERIENCE WITH CORRUPTION

In accordance with duties assigned to the PCI team under Resolution No.35,<sup>62</sup> this section offers an assessment of corruption faced by foreign enterprises. To provide a more fine-grained measurement of corruption in Viet Nam, the PCI-FDI survey asks a large number of questions about activities that expose businesses to corruption. These include bribes paid at various times: during entry; in pursuit of government contracts; while performing customs activities; in the process of regulatory enforcement; and while courts are adjudicating contract disputes. We present the responses to these questions below in Table 2.7.

One issue in standard measures of corruption is that respondents might be reluctant to answer candidly because they may be exposed to legal ramifications or harassment. This is especially true of firms from countries that have signed the Organization for Economic Cooperation's and Development's Anti-Corruption Agreement, as they can also be held legally liable in their home countries for bribes paid in Viet Nam . As we have documented in our reports since 2012, the PCI has pioneered a question format called the Unmatched Count Technique (UCT), or list question, which shields respondents from culpability, allowing them to answer honestly about their exposure to corruption.

The general result is that corruption appears to be declining for foreign firms. The first two columns of Table 2.7 provide the percentage of firms responding affirmatively to

62 Nguyen 2016

the list questions about bribes paid during entry or during the government procurement process. When interpreting these answers, it is important to remember that these figures show the share of firms that actually engaged in the activity, not firms that heard about corruption or that may have indirectly paid through a facilitator, broker, or consulting firm. About 25 percent of FIEs admit that they paid bribes when they attempted to acquire their investment licenses, and 13.6 percent paid bribes when competing for government contracts. Both of these numbers represent declines from 2015.

The true cost of corruption does not just include the direct cost of the bribe; analysts must also take into account the inefficiencies created when less qualified companies are chosen over firms that refused to bribe. A follow-up question therefore asked firms if they were disadvantaged in the selection process if they refused to pay a bribe during procurement. While 88 percent agreed they were disadvantaged in some way, there was disagreement on the frequency: 32 percent indicated always; 26 percent said usually and 30 percent reported sometimes encountering disadvantage. This sizable result indicates that a culture of commissions in contracting may be impeding the best selection of service providers, leading to higher costs and lower quality compared with optimal selections.

The next three columns of Table 2.7 report scores for directly asked questions about: 1) whether firms paid bribes during customs procedures (at any stage in the process); 2) whether the businesses believe administrative and market regulations are an excuse for bureaucrats to extract bribes; and 3) whether firms with contractual disputes did not use courts because they feared bribery. For all these questions, corruption also appears to be demonstrably lower in 2016 for foreign firms. Forty-nine percent of operations paid bribes during customs procedures, ten percentage points below last year. Fifty-six percent of businesses answered that regulations were merely an excuse for bureaucrats to ask for bribes, 10 percentage points lower than in 2015. Nineteen percent of businesses chose to avoid the Vietnamese court system during disputes in 2016 because they were concerned about bribery during the process. Again, these figures demonstrate significant declines over the past two years.

While bribery is declining, it is also becoming less predictable. Less than half of bribe paying firms believed the service they paid for was eventually delivered.

**Table 2.7: All Questions about Corruption in PCI-FDI Survey**

<b>Type of Informal Charge</b>						
<b>Year</b>	<b>Informal Charge during Entry<sup>1</sup> (Percent)</b>	<b>Commission during Procurement<sup>1</sup> (Percent)</b>	<b>Bribe during Customs Procedure (Percent)</b>	<b>Regulations are an Excuse for Bribery (Percent)</b>	<b>Bribes Were a Deterrent to Using Courts (Percent)</b>	<b>Service Delivered after Bribe Payment (Percent)</b>
2010	18.5	NA*	64.4	31.4	8.9	47.3
2011	9.9	9.5	53.3	23.5	8.2	46.2
2012	9.0	12.0	56.2	24.1	12.7	54.5
2013	19.7	10.3	57.4	43.9	13.9	59.2
2014	17.2	31.4	66.2	60.1	22.3	58.2
2015	28.7	24.8	58.8	66.2	23.5	59.0
2016	24.7	13.6	49.7	56.4	18.7	45.3
<b>Cost of Informal Charges (Amount/Annual Income)</b>						
<b>Year</b>	<b>0%</b>	<b>&lt;1%</b>	<b>1-2%</b>	<b>2-5%</b>	<b>5-10%</b>	<b>&gt;10%</b>
2010	22.1	40.5	17.0	10.9	6.8	2.9
2011	31.0	33.5	19.7	7.7	6.5	1.6
2012	30.3	40.7	17.4	8.2	2.6	0.9
2013	19.5	48.6	18.4	8.6	3.2	1.7
2014	18.9	42.5	20.1	11.9	4.7	2.0
2015	16.5	44.6	18.1	12.8	6.3	1.8
2016	25.9	43.9	15.2	8.8	4.1	2.0

\* The procurement question was not asked in 2012.

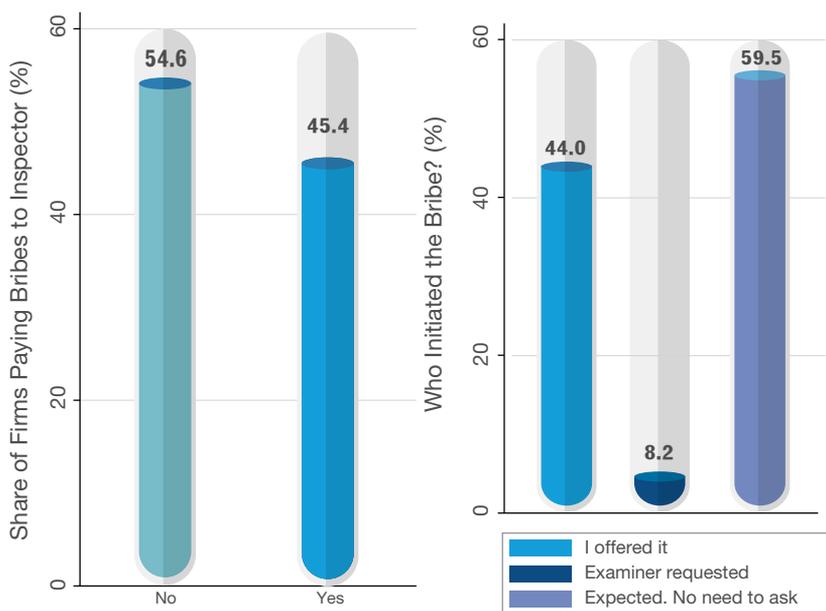
1. Derived using the Unmatched Count Technique or List Estimator, which relies on two randomized versions of the survey.

In order to combat corruption, it is critical to understand the specific circumstances in which it arises. Bribery is common, but, as the saying goes, “it takes two to tango.” In this year’s FDI survey, the PCI team further probed the question of who initiates the bribe request during regulatory inspections.

As we noted above in the section on regulation, for most firms in Viet Nam, inspections do not pose too much of a problem. For a small set of firms, however, inspections can generate unwanted harassment from regulatory agencies. Firms sometimes see bribes as a way to alleviate the burden of inspections as well as a way to reduce the probability of penalties and infractions. Consistent with this view, Panel 1 in Figure 2.8 shows over 45 percent of firms paid a bribe during an administrative inspection in 2016.

As Panel 2 in Figure 2.8 shows, however, it was extremely rare for the inspector to initiate the malfeasance. In cases where a bribe was paid, firms reported that the inspector made the request only 8 percent of the time. It was five times as likely that the manager himself offered the bribe (44 percent). The largest category was comprised of firms that believe bribery is common practice and offered payment without ever being asked (59 percent). The prevalence of this activity indicates the systematic nature of corruption in Viet Nam, illustrating how difficult the activity is to uproot. Bribery has become so common that words do not even need to be exchanged between the two parties.

**Figure 2.8: Bribery during Inspections (How Often and Who initiates?)**

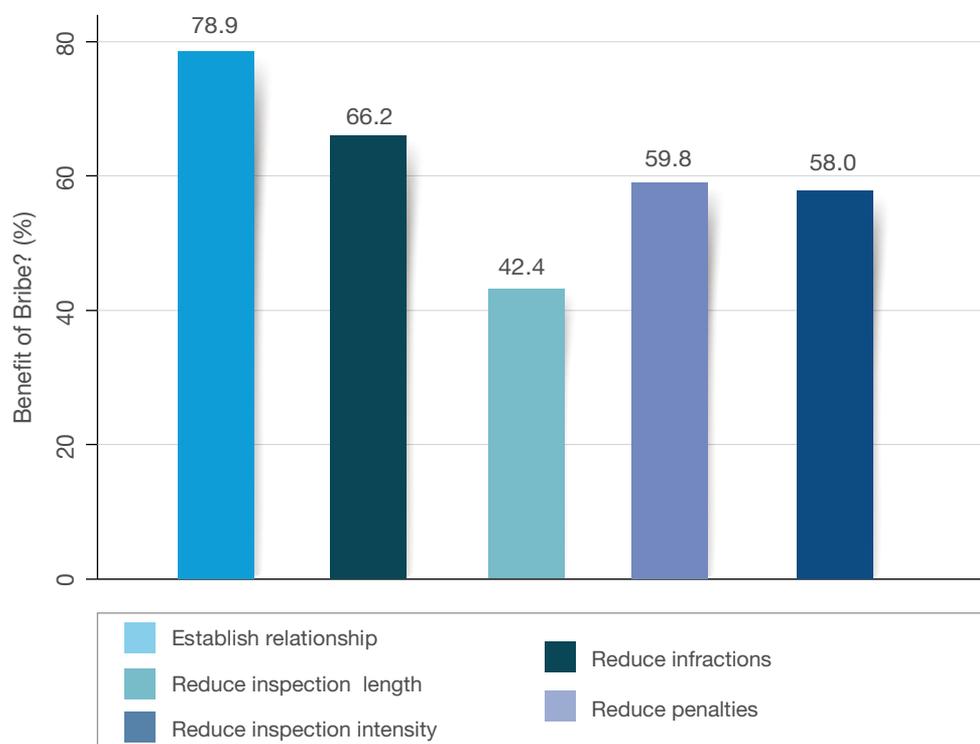


Source: PCI-FDI Survey Question D2.1: “During any of the inspections, did you provide a gift or informal payment to the examiner?” and D2.2: “Who initiated the informal payment?”

Figure 2.9 studies the benefits that foreign firms believe they receive from bribing during inspections. The survey invited the responding firm to select all the categories it deemed appropriate. The largest category, nearly 80 percent of bribe paying respondents, was for establishing a relationship. Firms selecting this category see the bribe payment as an insurance contract, whereby a small gift to a regulator today may help them with future exigencies. The second largest effect of the bribe payment was to reduce the length of the inspection, which limited the burdens and slowdowns associated with the investigation, but certainly also reduces the probability of an inspector identifying transgressions. Along these lines, reducing the number of number of infractions (59.8 percent) and reducing the cost of penalties (58 percent) were selected as third and fourth options.

These results clearly indicate that foreign firms are engaging in a cost-benefit analysis when dealing with regulatory inspectors. They appear to be weighing the benefits of avoiding delays in operations and penalties for infractions against the costs of small gifts to inspectors.

**Figure 2.9: Purpose of Bribing during Inspections**



Source: PCI-FDI Survey Question E2.3: "Was the payment effective at...?"

## 2.8. CONCLUDING THOUGHTS

The 2016 PCI-FDI survey offers a great deal of reason for optimism. Legal changes over the past two years have created a hospitable environment for foreign direct investors. These reforms are already bearing fruit in the form of increased optimism among foreign investors and evidence of greater expansion. Although it is early, reductions in business entry costs and petty bribery also appear to be taking place. In these areas, the grandiose prognostications of investment analysts appear to be correct. Investors seeking to enter Viet Nam over the next two years will face a far more hospitable climate than their predecessors.

At the same time, more work clearly remains for Viet Nam to reach its true investment potential. Foreign investors still believe that the policy environment is biased in favor of SOEs, and access to budget and planning information remains challenging. Furthermore, post-entry regulation in Viet Nam is burdensome, especially for a few firms that experience extraordinary harassment from inspectors. Addressing these challenges will allow Viet Nam to move beyond simply being a thriving location for attracting new investment, but help it mature into the best nation for those investments to grow and prosper.



2016





## BUSINESS AWARENESS OF ENVIRONMENTAL CONCERNS

### 3.1 INTRODUCTION

On April 6, 2016, millions of dead fish began to wash ashore on Viet Nam's North Central Coast. Within a short amount of time, it became very clear that the economic and social consequences of the incident would be severe given the importance of fishing to the Vietnamese economy and diet. After a thorough investigation, the Formosa Steel Company eventually admitted culpability for dumping pollutants into the ocean and agreed to pay a \$500 million compensation package to the anglers, restaurants, and citizens in the affected provinces.<sup>63</sup>

The Formosa Steel Company incident revealed a tension between regulation and economic activity that we explore in this chapter. Is it necessary to choose? Is it possible to have both economic development and a healthy environment? As Viet Nam's economy and population grow, and as modernization and urbanization put pressure on Viet Nam's air and water resources, this question is becoming increasingly salient.

It is easy to use this story to present a caricature of a business sector that does not care about the damaging externalities of its economic activity and that sees regulations

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63 Nguyen 2016

to protect the environment only as restrictive red tape, which ties its hands and delays Viet Nam's economic modernization. As we demonstrate in this chapter, however, that is only one voice and a minority voice at that. The stereotype overlooks the myriad businesses that are negatively affected by pollution and climate change. Fishermen and fish exporters are the most obvious examples, but numerous other enterprises were also hurt. Hotels and tour guides at popular beach destinations along the central coast suffered canceled trips and declining expenditures. Restaurants and food distributors around the country suffered lost sales because customers did not trust the provenance of their favorite condiment – fish sauce.<sup>64</sup>

The Formosa Steel Company fish kill was not the only major environmental crisis Viet Nam faced in 2016. Salt water intrusion in the Mekong Delta damaged 971,200 hectares of farming areas, destroying rice harvests throughout the region.<sup>65</sup> Air pollution in Viet Nam's major cities continues to worsen in Ha Noi and Ho Chi Minh City, which some believe is becoming a serious health and economic threat.<sup>66</sup>

In this chapter, we report the results of our asking firms in the foreign and domestic surveys to reflect upon the environmental consequences of their economic activity. We find that most firms believe that environmental health is important, and are willing to pay reasonable costs in terms of their own programming and additional regulation to avoid damaging pollution. Firms in agriculture, aquaculture, finance, and the growing service sector are particularly strident in these beliefs.

The PCI survey took a number of precautions to avoid biases caused by the sensitivity of the environmental questions.<sup>67</sup> Surveys were mailed out and respondents answered them anonymously, allowing firms the greatest freedom to speak their mind. Further, a great deal of care was devoted to designing each question to minimize the sensitivity of the information extracted. Nevertheless, it is important to remember that the ocean contamination by the Formosa Steel Company was still the cover story in major Vietnamese newspapers at the time the PCI survey was disseminated in the summer

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64 Pham and Chau 2016

65 *Tuoi Tre News* 2016

66 *Thanh Nien News* 2016

67 *Survey researchers can never know what lies in deep in their hearts of their respondents; we can only record what the respondents are willing to tell us. For most of the questions in the PCI survey, this issue does not pose too much of a problem. Most firms benefit from governance improvements, and see the PCI survey as a vehicle for promoting their goals of faster registration or greater transparency. In these cases, respondents have an incentive to answer accurately. In other situations, surveys may have difficulty eliciting honest opinions. Where revealing behavior may lead a firm to face penalties or sanction, it is likely that some firms will not be willing to answer and will seek to hide their true actions. This is the reason why the PCI survey uses shielded response techniques in asking about sensitive issues such as corruption to protect respondents and elicit responses that are more accurate (Malesky, Gueorguiev, and Jensen 2015). A related problem is called social desirability bias, whereby the respondent seeks to curry favor with the interviewer by offering answers they believe the interview wants to hear. Respondents who hold unpopular beliefs may alter their responses to avoid social retribution (Nederhof 1985).*

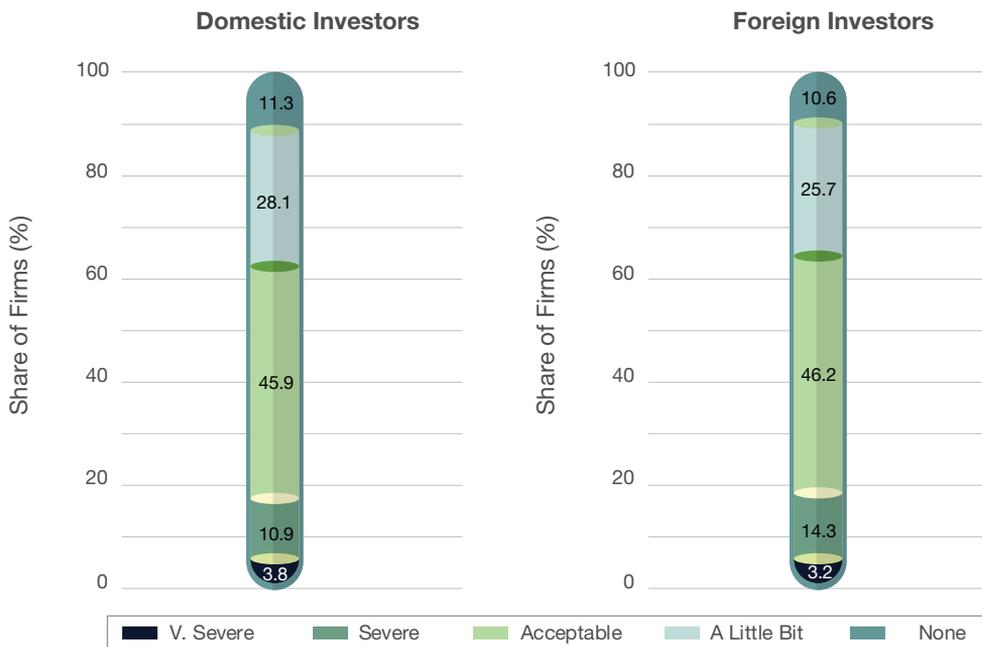
of 2016. It is certainly possible that the sensational headlines may have influenced responses and made firms more reluctant to admit to holding anti-environmental views.

This chapter is structured as follows. In Section 3.2, we ask firms to rate the level of pollution in their province and its effect on their business. In Section 3.3, we inquire about provincial efforts to combat pollution. Section 3.4 chronicles efforts of firms at self-regulation. Section 3.5 probes the policy effects of the Formosa Steel Company crisis, using a survey expert to pinpoint how the fallout from the fish death is affecting firm, provincial, and national attitudes about the environment.

## 3.2 ENVIRONMENTAL AWARENESS AND CONCERNS

Figure 3.1 illustrates that most firms are not concerned about pollution in their home province. Roughly 46 percent of domestic and foreign respondents report that they find the current level of pollution to be acceptable. Only a handful of domestic and foreign respondents believe that pollution is severe enough to create problems, and a third of firms in each category believe pollution is only marginally problematic or not problematic at all.

**Figure 3.1: Rate the Severity of Pollution in Your Province**



Source: PCI Survey Question G14 and PCI-FDI Survey Question M8, “Please rate the severity of environmental pollution in your province.”

Figure 3.2 reports the results of a question asking managers who indicated their areas were severely polluted to think more concretely about the effect of pollution on their own business prospects. One third of both foreign and domestic respondents report no problems at all. Half of foreign firms and 45 percent of domestic firms report some negative effects. Critically, however, a sizable number (about one quarter) of domestic and foreign respondents believe that pollution has had negative or very negative effects on their business prospects.

**Figure 3.2: Effect of Pollution on Your Business**



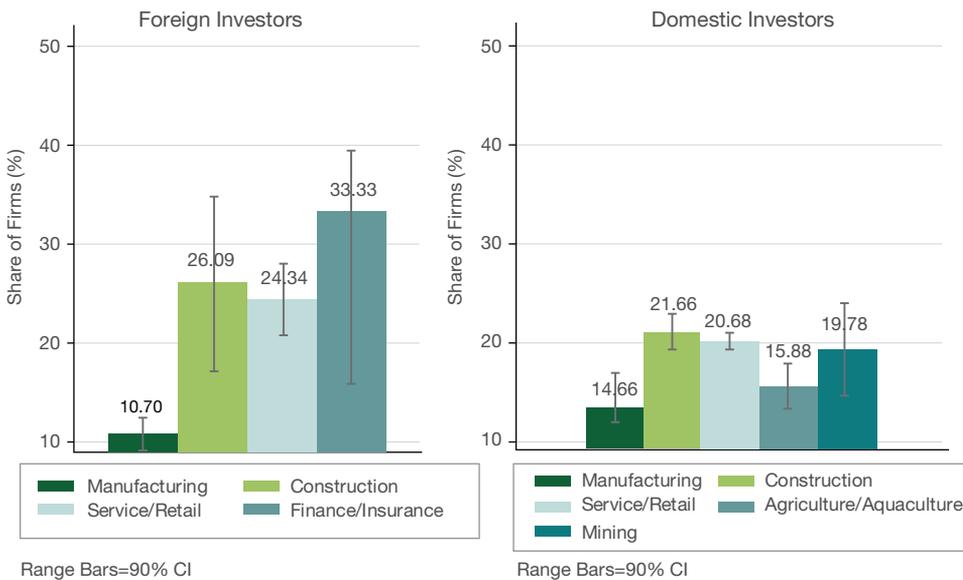
Source: PCI Survey Question G15 and PCI-FDI Survey Question M9, "If you answered severe pollution, please rate how the level of damage affects your business prospects?"

Which businesses have expressed concerns about the economic effects of environmental degradation? Figure 3.3 explores responses to the question based on broad economic sector from those who expressed concern about severe pollution in their province.<sup>68</sup> In general, the share of negatively affected respondents is quite low. No sector records more than a third of concerned respondents, despite the events of the past year. However, both graphs demonstrate statistically significant differences between manufacturing firms and those in construction, services, or finance. Only 11 percent of foreign and 14 percent of domestic manufacturers who reported severe pollution in their province believe that it is harmful to their operations. By sharp contrast, between 20 to 30 percent of business operators in other sectors express concern, and foreign firms in these sectors are more worried than domestic operations.

<sup>68</sup> The PCI-FDI survey reports only 10 investors in agriculture/aquaculture and two in mining. Their answers are dropped because they do not provide a sufficient sample size to offer reliable estimates.

The distinction between answers appears to be related to market orientation. Most foreign manufacturers are export-oriented, aiming to sell products to overseas markets. Pollution in Viet Nam has very little effect on overseas consumption. Most foreign customers have minimal knowledge of or interest in whether products were produced in a country with lax environmental standards. In fact, in a global market with complex production chains, very few overseas customers have any idea where the product was actually made. As a result, the primary objective of export-oriented firms is reducing their production costs. The retail and service sector, construction, and finance businesses, however, are domestically oriented operations. Their success depends on happy and healthy Vietnamese consumers as well as foreign visitors, especially in Viet Nam’s growing hospitality and tourist sectors. Pollution hurts these operations by damaging the quality of the services they can provide and reducing their customer base.

**Figure 3.3: Effect of Pollution on Your Business by Sector**

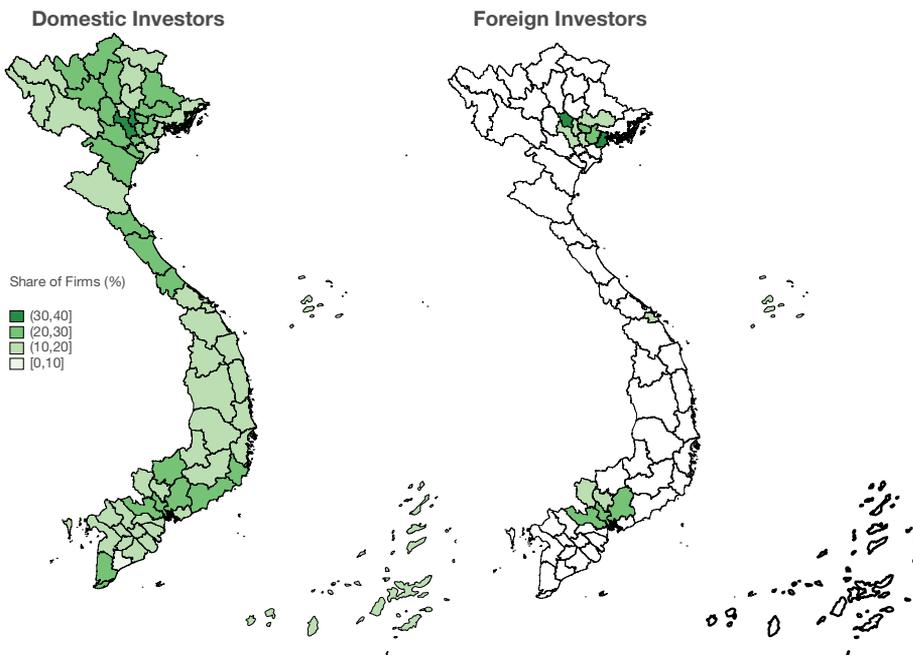


Source: PCI Survey Question G15 and PCI-FDI Survey Question M9, “If you answered severe pollution, please rate how the level of damage affects your business prospects?” Answers disaggregated by sector measured by responses to question A6 in the domestic survey and A7 in the foreign survey.

One puzzle is why firms involved in domestic agricultural or aquaculture production do not express greater concern about environmental damage to their businesses. After all, the Formosa Steel Company incident and Mekong Delta salinization hit these businesses the hardest. The most likely explanation is that the owners of these businesses tend to live in rural provinces and do not experience the daily reminders of pollution that urban dwellers routinely face. To explore this question, Figure 3.4 maps responses to the business effects of pollution question by province. The left panel reports the aggregate provincial scores for domestic investors, while the right panel reports the scores for foreign investors in the fourteen provinces covered by the PCI-FDI survey.

Several important regional patterns are immediately obvious. First, we observe the urban-rural differential discussed above. Firms in Ha Noi and the former Ha Tay province express the greatest concerns about environmental damage. For both domestic and foreign investors, Ha Noi is the only province to pass the 30 percent threshold of expected environmental damage. Relatedly, concerns about pollution are greatest in the provinces that border Ha Noi and Ho Chi Minh City. Second, as is to be expected, Ha Tinh province, the epicenter of the Formosa Steel Company crisis, and its neighbors, Thanh Hoa, Quang Tri, and Quang Binh provinces, are greatly concerned about pollution. Three of these provinces suffered severe losses from the fish deaths and are receiving compensation. Indeed, over 27 percent of businesses in Ha Tinh mentioned the negative effects of environment on their business prospects. Finally, Da Nang, an urban center, stands out for the small share of both foreign and domestic investors that express concern, despite the large-scale urban development of the city over the past few years.

**Figure 3.4: Effect of Pollution on Your Business by Province**



Source: PCI Survey Question G15 & PCI-FDI Survey Question M9, "If you answered severe pollution, please rate how the level of damage affects your business prospects?" Answers disaggregated by province.

Table 3.1 offers more detail into the question of economic injury from pollution. It reports the responses to a series of questions asking firms to recall a specific case of pollution in their province. Thirty-seven percent of domestic investors and 31 percent of foreign investors could recall an environmental incident in their home province in the past year. About 60 percent of foreign and domestic investors recalled provincial authorities addressing the problem in a timely manner. One quarter of domestic firms and 16 percent of foreign firms reported that their firm's business suffered injuries as a result.

At the same time, efforts by national and local authorities to alleviate the economic consequences of the environment are not deemed adequate by most respondents. Unfortunately, only one quarter of firms were compensated for their loss; approximately one third believed that the compensation was sufficient to alleviate the damages.

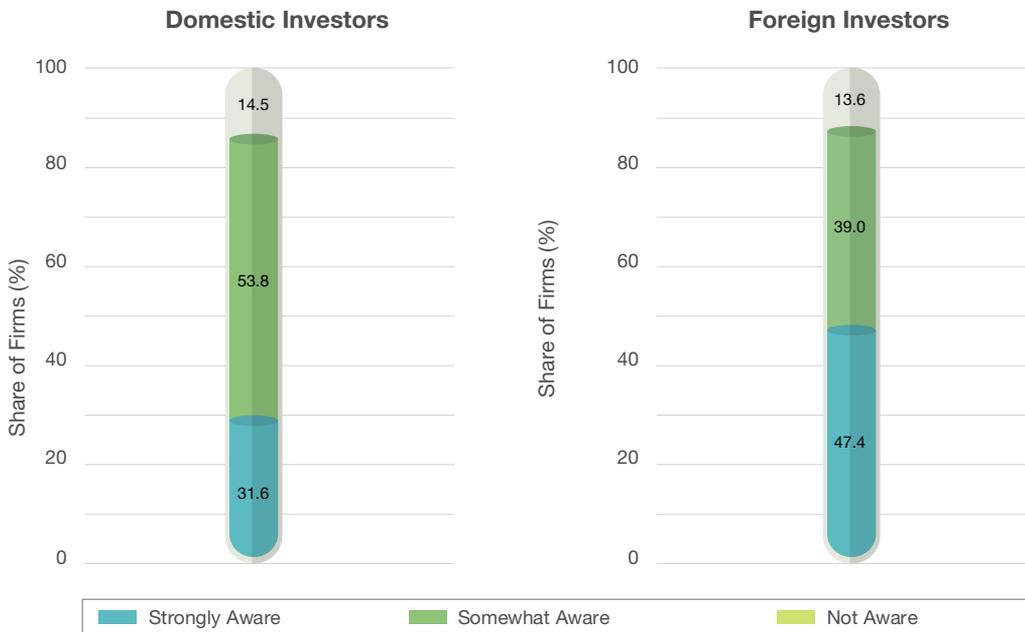
**Table 3.1: Enforcement of Environmental Regulation in Province**

PCI Survey Question G13 & PCI-FDI Survey Question M7	Domestic Investors				Foreign Investors			
	"Yes" Average		95% Confidence Interval		"Yes" Average		95% Confidence Interval	
	(%)	Number	(%)	(%)	(%)	Number	(%)	(%)
1. During the last year, do you know of any cases where enterprises caused environmental pollution in your province?	37.7	7,158	36.6	38.8	31.2	1,365	28.7	33.7
2. If yes, did the provincial authorities take timely action to deal with the pollution?	60.6	3,392	59.0	62.3	62.9	475	58.6	67.3
3. Did the environmental pollution cause any economic loss to your firm?	24.8	4,978	23.6	26.0	16.4	640	13.5	19.3
4. If Yes, was your firm compensated by local authorities?	26.9	1,666	24.8	29.0	21.5	158	15.0	28.0
5. If Yes, was the compensation fair?	37.6	1,105	34.8	40.5	32.7	104	23.5	41.9

### 3.3 ENVIRONMENTAL REGULATIONS

While the majority of businesses are not overly concerned about environmental damage, in this section we explore if they are aware of efforts to protect it. In particular, we examine how much they know about regulations designed to safeguard the environment. Figure 3.5 shows that about 87 percent of both domestic and foreign investors possess at least some awareness of applicable environmental regulations. Differences emerge, however, when we look at the level of awareness. Nearly half of foreign investors report strong awareness of environmental regulations, compared to only one third of domestic investors. This is consistent with other work demonstrating that regulatory awareness and subsequent compliance has been difficult for Viet Nam to achieve among its domestic small and medium size enterprises (SMEs).<sup>70</sup> Because they are often bigger and more visible, foreign investors appear to be more likely to face inspections and punishment for non-compliance. For them, it pays to be aware of and to follow the environmental rules.

**Figure 3.5: Awareness of Environmental Regulations**

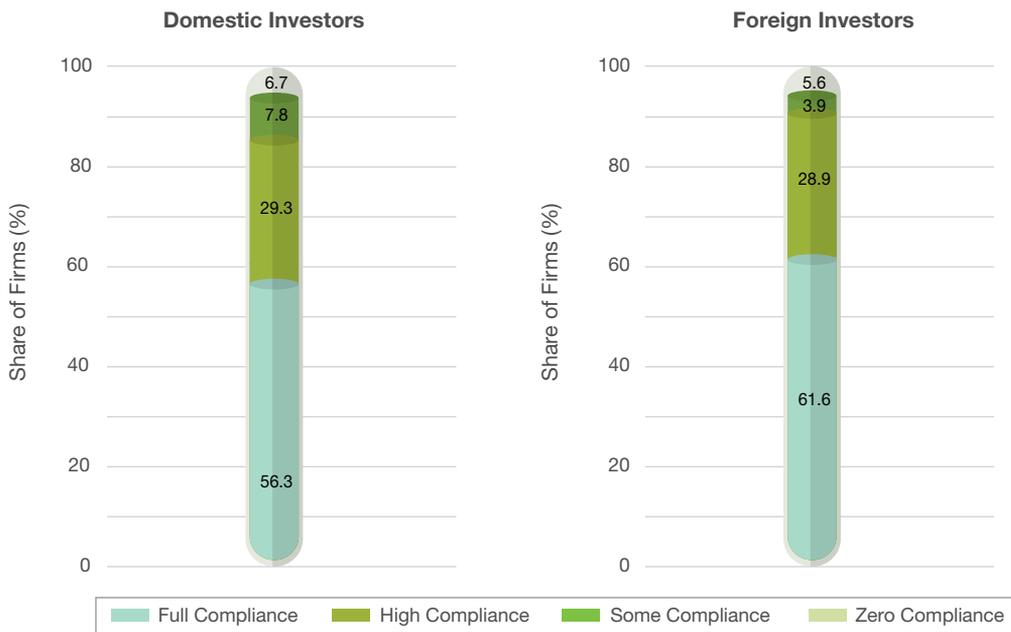


Source: PCI Survey Question G7 and PCI-FDI Survey Question M1, "Rate your level of awareness of environmental regulations that apply to your firm."

70 Malesky and Taussig 2016

Probing further, a follow-up question asked firms that claimed some level of awareness whether they were in compliance with the environmental regulations with which they were familiar. Clearly, this is a sensitive question and firms are reluctant to admit to activities that could lead to sanctioning or fines. As we noted in the Introduction above, this might lead to over-reporting of compliance. Nevertheless, as Figure 3.6 shows, 38 percent of foreign investors and 44 percent of domestic investors admitted that they were at less than full compliance. Furthermore, 14.5 percent of domestic investors and 9.4 percent of foreign investors reported moderate-to-severe deficiencies in their own compliance with environmental protocols.

**Figure 3.6: Self-Reported Compliance with Environmental Regulations**

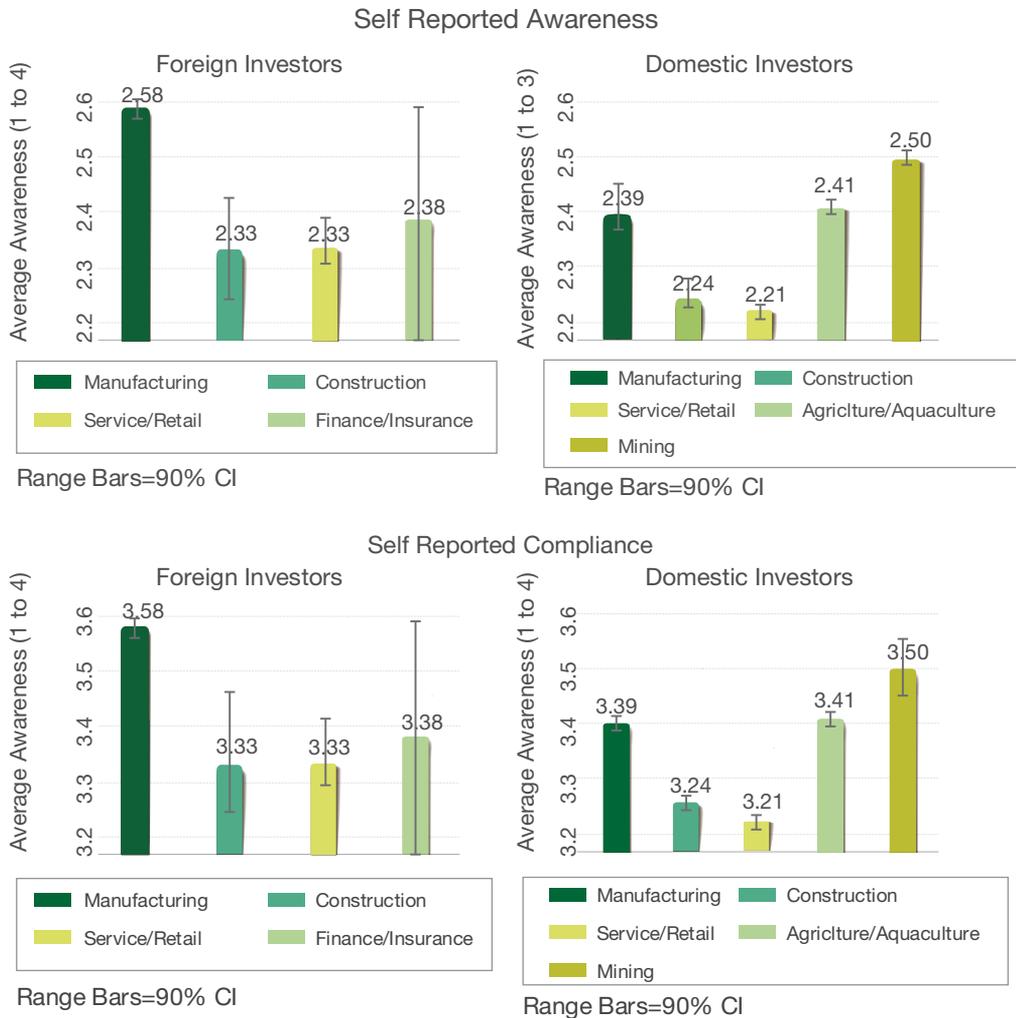


Source: PCI Survey Question G8 & PCI-FDI Survey Question M2, “Rate your current level of compliance with existing environmental regulations.”

Figure 3.7 disaggregates responses to the awareness and compliance questions by economic sector by coding the response categories so that the lowest level of awareness and compliance are coded as one, while the highest reported scores are coded as three and four respectively. On the three-point scale of awareness, firms in the manufacturing and mining sectors report the highest level of knowledge about the regulations that govern them. This makes sense as these sectors tend to be the most polluting and most regulations target

their operations. Further, foreign manufacturers stand out for reporting significantly more awareness (2.58) than their domestic counterparts do. Similar patterns are evident for self-reported compliance. Again, manufacturing and mining have the highest scores with foreign investors noticeably more concerned about compliance than domestic firms.

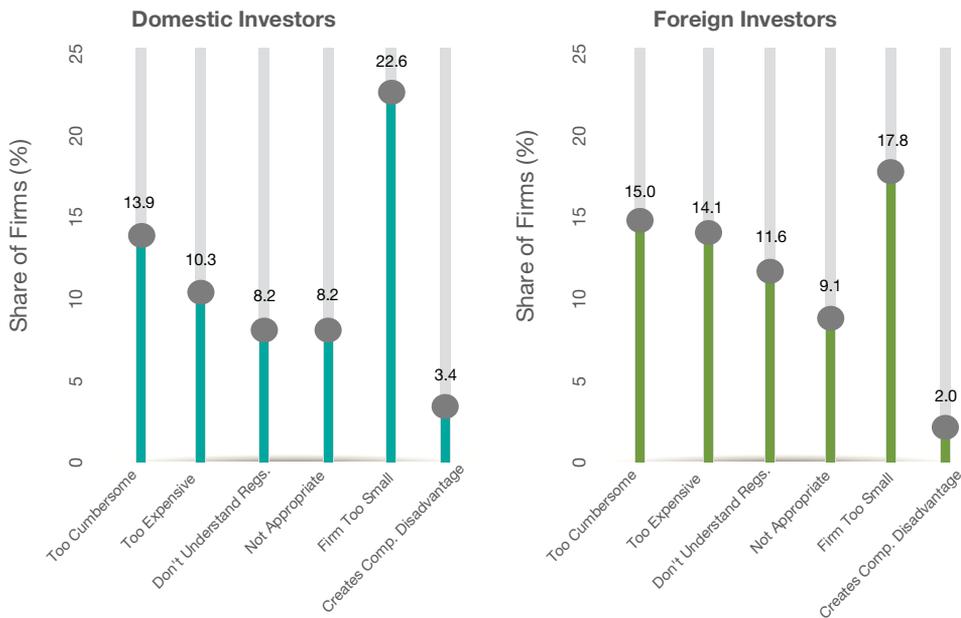
**Figure 3.7: Awareness and Compliance with Environmental Regulations by Industry**



Source: PCI Survey Question G8 & PCI-FDI Survey Question M2, “Rate your current level of compliance with existing environmental regulations.” Answers disaggregated by sector measured by responses to question A6 in the domestic survey and A7 in the foreign survey.

Given the potential penalties for non-compliance, why would any firm admit to shirking its obligations? A follow-up question, reported in Figure 3.8, asked firms that admitted to less than full compliance to explain their decisions. The survey offered respondents a range of common excuses and asked them to select the one that best matched their perspective. The most common answer for both foreign and domestic investors was that they thought their operation was too small for it to matter much. The magnitude for domestic firms (22.6 percent) was significantly greater than for foreign firms (17.8 percent). The second and third most selected options for both groups was that compliance with environmental regulations was too cumbersome and too expensive. These answers fit into the common narrative among Vietnamese investors that regulations tie them in red tape and constrain them from successfully operating their businesses.

**Figure 3.8: Why is Your Firm Not in Compliance?**

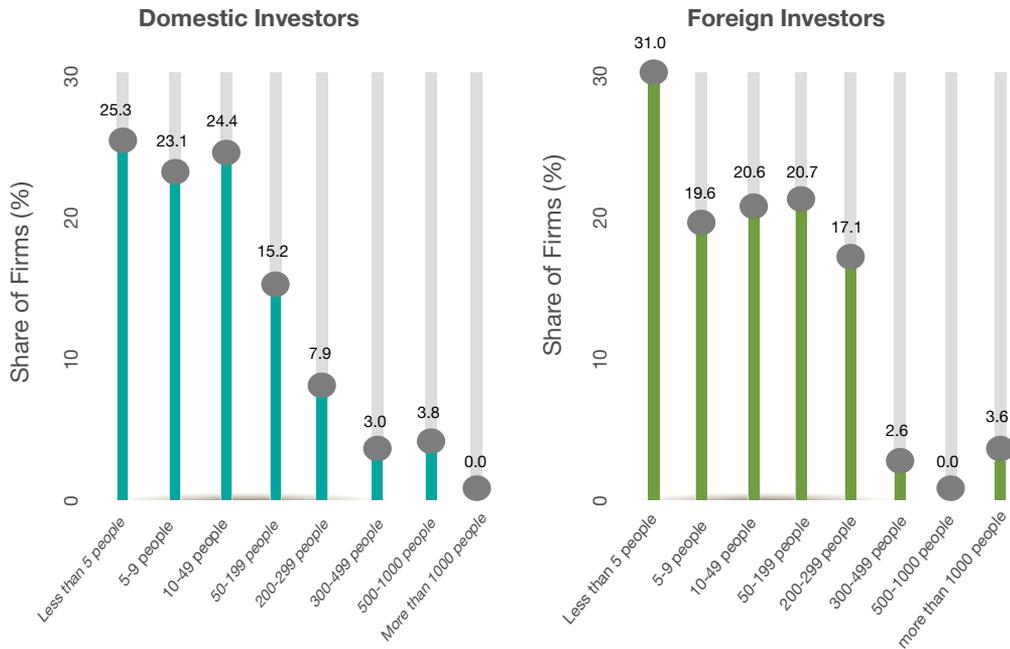


Source: PCI Survey Question G8.1 & PCI-FDI Survey Question M2.1, “If you’re not in full compliance, why not?”

In Figure 3.9, we disaggregated the “too small” answer to determine whether small firms were indeed more likely to select this option. In general, the pattern holds. On average, small firms are more likely to cite their size as an excuse than other categories. This is particularly true of foreign investors, where 31 percent of firms with fewer than five employees selected the burden of size as the primary obstacle to compliance.

Nevertheless, there are some anomalies. For instance, a substantial number of extremely large firms also complained that they were too small for regulation. This included 3.6 percent of foreign firms with over 1,000 employees and 17 percent of firms with 200-299 employees. Understanding why these respondents classify their firms as too small to adhere to regulations will be a critical policy task for ensuring a cleaner environment in Viet Nam.

**Figure 3.9: Why is Your Firm Not in Compliance?  
(Disaggregated by Employment Size)**



Source: PCI Survey Question G8.1 & PCI-FDI Survey Question M2.1, "If you're not in full compliance, why not?" Disaggregated by A8.3 in domestic survey and A10.3 in foreign survey.

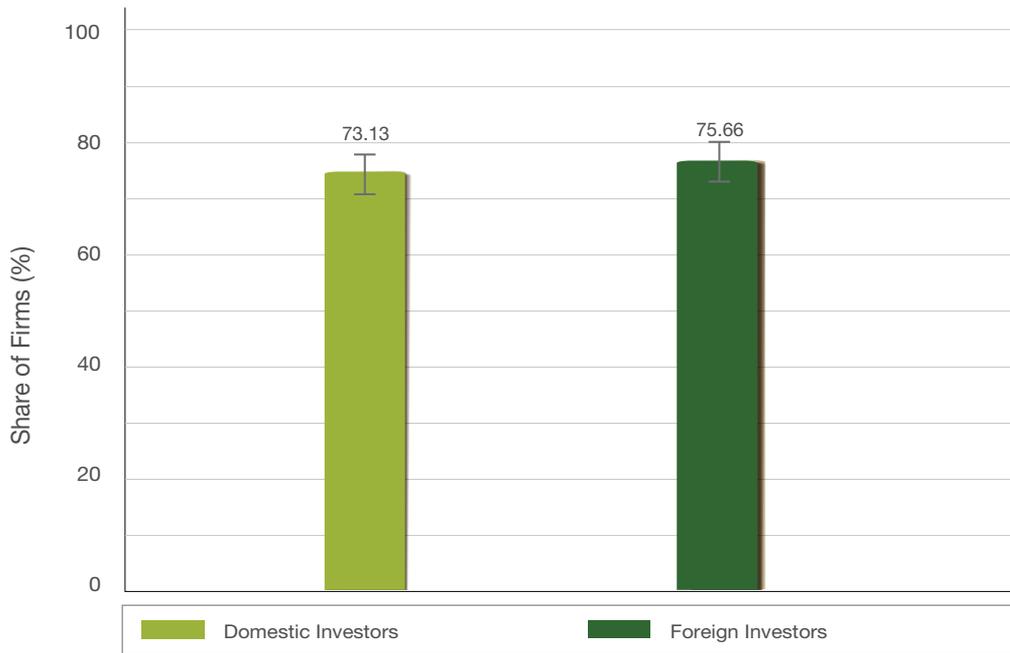
## 3.4 FIRM-LEVEL RESPONSES

Regulation addresses what national and provincial leaders are doing to help protect the environment. Firms, however, can also play a bigger role. Fascinating work on self-regulation discusses the potential benefits of firms choosing to be their own stewards of environmental and other social protections, and benefiting in terms of greater public acceptance and recognition.<sup>71</sup> How much self-regulation is taking place among firms in the PCI sample?

<sup>71</sup> Andrews 1998, Christmann and Taylor 2006

Figure 3.10 illustrates whether firms have instituted their own green policy. We find very little difference between foreign and domestic firms - about three-quarters of each claim to have such a policy in place.

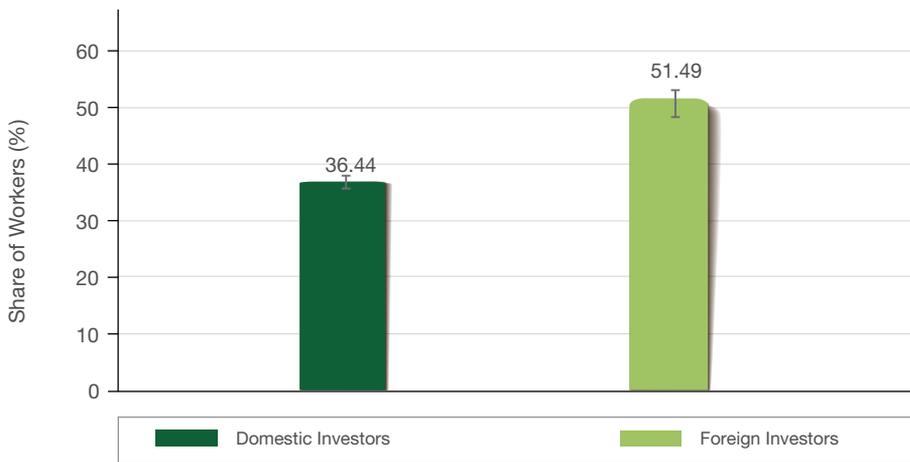
**Figure 3.10: Firms with a Green Policy**



Source: PCI Survey Question G11 and PCI-FDI Survey Question M5, “Do you apply a green policy (a policy that aims to reduce environmental pollution by using materials and energy effectively) in your firm?”.

Figure 3.11 looks at the specific activity of training managers and employees to be more environmentally conscious in their business activities. Here, we do detect quite salient differences. Foreign firms claim that about 52 percent of their employees have received such training, compared to only 36 percent of domestic firms.

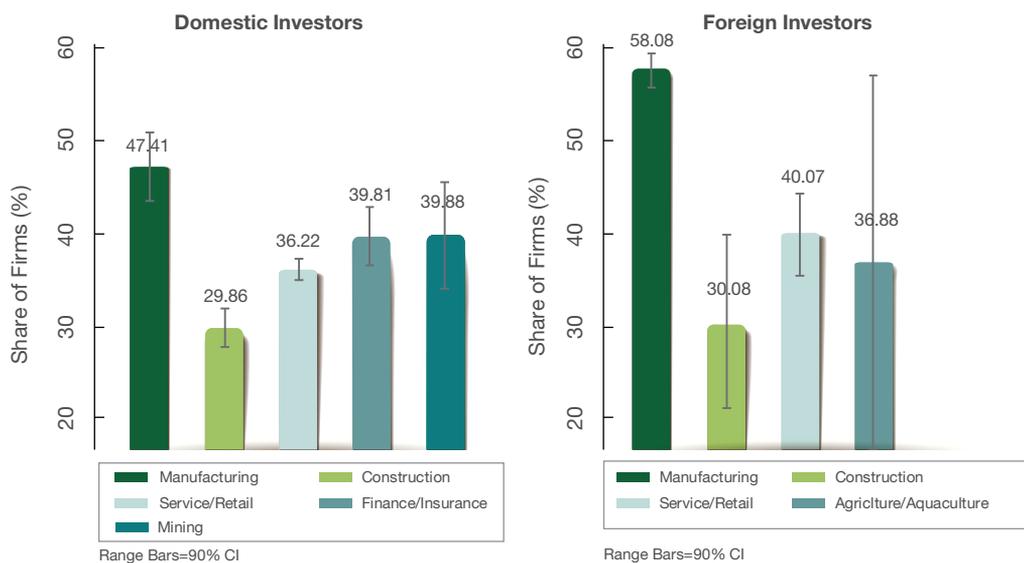
**Figure 3.11: Share of Environmentally Trained Workers**



Source: PCI Survey Question G10 and PCI-FDI Survey Question M4, “Percentage of your employees that received training on better protection of environment over the last 12 months”.

Examining the economic sector in greater detail in Figure 3.12, we find that environmental training is most common among manufacturing firms (58 percent), while workers in construction have very received very little training (30 percent). Although the magnitudes are smaller, the same general pattern holds for domestic firms.

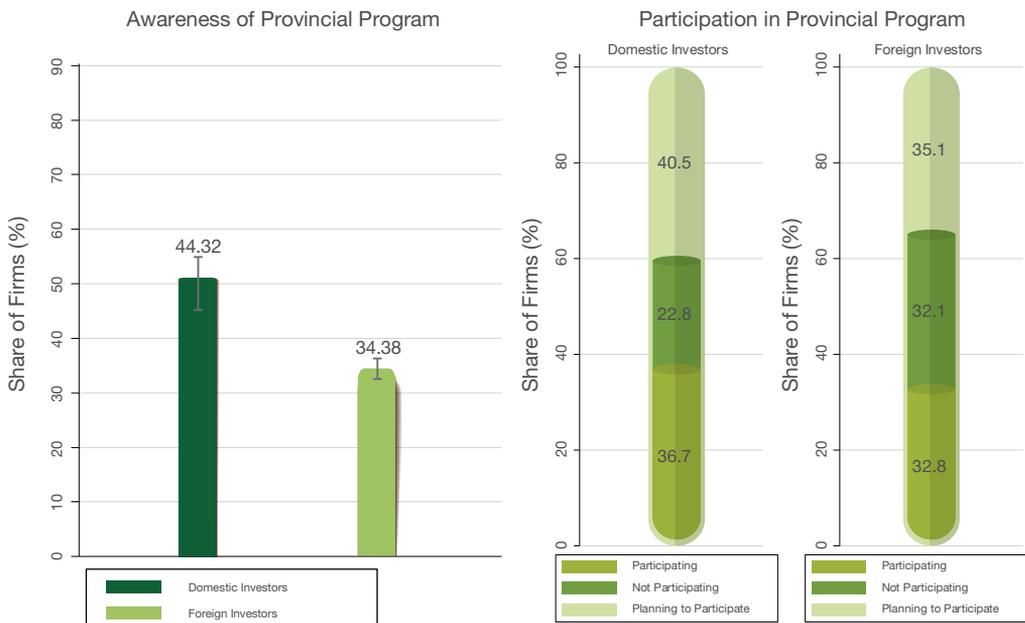
**Figure 3.12: Share of Environmentally Trained Workers by Sector**



Source: PCI Survey Question G10 and PCI-FDI Survey Question M4, “Do you apply a green policy (a policy that aims to reduce environmental pollution by using materials and energy effectively) in your firm?” Answers disaggregated by sector, measured by responses to question A6 in the domestic survey and A7 in the foreign survey.

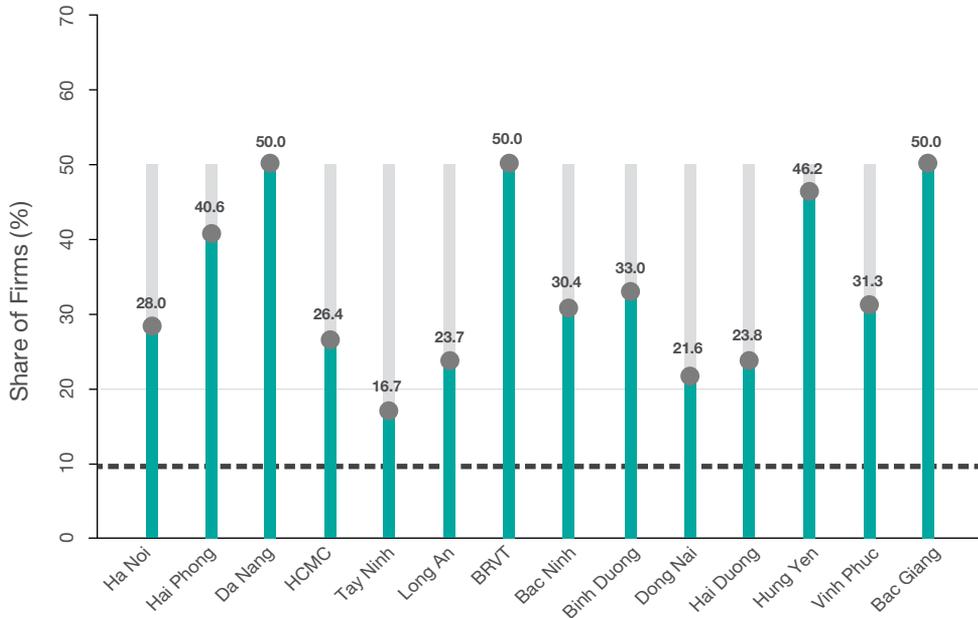
Some provinces have tried to create a hospitable climate for self-regulation by initiating voluntary programs that assist firms in committing to environmental protection. These programs range from training and education efforts to emissions reduction targets and pledges. Figure 3.13 shows that about 44 percent of domestic firms are aware of such programs; of these, 37 percent are actively participating. Foreign firms have lower awareness (34 percent) and participation (33 percent) rates.

**Figure 3.13: Awareness and Participation in Provincial Programs**



Source: PCI Survey Question G12 and PCI-FDI Survey Question M6, “Are you aware of any voluntary province-led programs that promote environmental protection?” PCI Survey Question G12.1 and PCI-FDI Survey Question M6.1, “If yes, what is the status of your participation in those programs, if any?”

As Figure 3.14 shows, however, the firms’ participation in these programs varies widely across provinces. Focusing only on the major FDI locations for simplicity, the participation rates are highest in Da Nang, Ba Ria-Vung Tau (BRVT), and Bac Giang, which all have about 50 percent of foreign operations claiming that they are involved. One factor may be that these are all well-known tourist locations. Da Nang and BRVT have their pristine, white sand beaches, while Bac Giang is well known for its forests and mountain vistas. By contrast, industrial provinces that border HCMC have the lowest participation rates. The lowest scores were recorded in Dong Nai (22 percent) and Tay Ninh (17 percent). The major urban centers of Ha Noi and HCMC also have comparatively low participation rates of 28 and 26 percent respectively.

**Figure 3.14: Awareness and Participation in Provincial Programs (By Province)**

Source: PCI Survey Question G12 and PCI-FDI Survey Question M6, “Are you aware of any voluntary province-led programs that promote environmental protection?” PCI Survey Question G12.1 and PCI-FDI Survey Question M6.1, “If yes, what is the status of your participation in those programs, if any?”

## 3.5 THE IMPACT OF FORMOSA ON ENVIRONMENTAL PERCEPTIONS AND COMPLIANCE

Both the domestic and foreign PCI surveys included a special battery of questions to gauge how the Formosa Steel Company pollution crisis affected the perceptions and activities of firms. The question prompt, listed at the top of Table 3.2, began by reminding firms about the incident before asking firms to state their level of agreement with seven statements about provincial and business responses to environmental protections.

There are two caveats to interpreting these answers. First, social desirability bias remains a problem. In the wake of such a disaster, firms that disagree with greater environmental protection may find it difficult to express their beliefs honestly. Second, this was the first time the questions were asked, so we cannot distinguish whether the expressed beliefs have remained constant or whether they were temporarily influenced by the contemporary publicity of the Formosa Steel Company incident.

With those conditions in mind, the table reveals that both foreign and domestic firms believe the Formosa Steel Company pollution inspired both greater firm- and provincial-level efforts to protect the environment. Moreover, firms appear to be supportive of such efforts, documenting clearly that they are in favor of greater protection, even in cases where these activities burden the business community. Finally, business leaders believe that such an incident could happen again.

Beginning with the behavioral response, about 94 percent of foreign and domestic firms claim that the incident inspired them to invest greater resources into environmental compliance. Foreign firms, however, appeared to have more fervent preferences. Twenty-nine percent answered strongly agree, compared to 22 percent of domestic firms. Relatedly, nearly 97 percent of both domestic and foreign business stated that they believe it is the responsibility of businesses to protect the environment, even if it increases business costs. Again, intensity of preferences was greater for foreign firms.

Beyond their own responsibilities, businesses believe that provincial governments have a responsibility to protect the environment. Ninety-one percent of both foreign and domestic firms believe provincial authorities should not approve projects that are prone to environmental damage. Ninety-one percent of domestic businesses and 95 percent of foreign businesses also believe that provincial governments have a responsibility to enforce regulations, even if it creates greater constraints for the business community. It is notable that these shares, while still extraordinarily high, are lower than the share of firms answering protection was a business responsibility.<sup>72</sup> This is consistent with our findings in Chapters 1 and 2 of this report that some businesses believe provincial regulation can be cumbersome and prone to exploitation. This indicates a preference for self-regulation as the best strategy for dealing with the negative environmental side effects of business activity.

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<sup>72</sup> *T*-tests confirms that these are statistically significant differences. For domestic firms the average business responsibility score is agreement of 3.17, compared to 3.10 for provincial responsibility  $t = -11.72$ ,  $p < 0.000$ . For domestic firms the average business responsibility score is agreement of 3.26, compared to 3.21 for provincial responsibility  $t = 5.28$ ,  $p < 0.000$ .

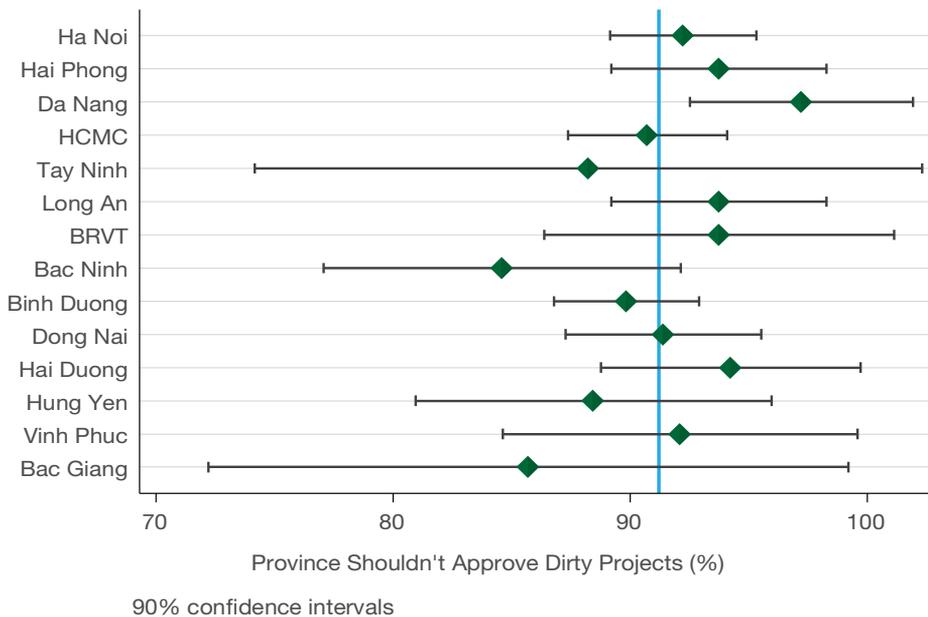
**Table 3.2: What Has Changed in Firm and Provincial Attitudes after the Formosa Incident?**

You may have heard in the media that this year an environmental incident occurred on the coast of 4 central provinces (Ha Tinh, Quang Binh, Quang Tri and Thua Thien Hue), causing mass fish death, severe socio-economic losses and affecting the marine and people's.... The incident was caused by Formosa Ha Tinh steel mill, who violated the protocol of waste treatment. Reflecting on the incident, please rate your level of agreement with the following statements.

Statement	Domestic Investors					Total Agreement (Percent)
	Strongly Agree (Percent)	Agree (Percent)	Disagree (Percent)	Strongly Disagree (Percent)	Scale (4=S. Agree)	
1. After this incident, I am more likely to invest money into complying with environmental regulations now	21.8	71.5	6.1	0.5	3.15	93.4
2. After this incident, my provincial government increased the amount of environmental regulations to avoid future incidents.	14.8	68.2	14.3	2.7	2.95	83.0
3. After this incident, my provincial government increased inspections regarding compliance with environmental regulations.	13.1	70.7	13.6	2.6	2.94	83.8
4. It is the responsibility of businesses to protect the environment, even if it increases business costs.	21.1	75.3	2.9	0.7	3.17	96.4
5. It is the responsibility of provincial governments to enforce environmental regulations, even if it burdens the business community.	19.2	72.2	8.1	0.6	3.10	91.3
6. Provincial governments should not approve new investments that could damage the environment, even if it leads to less employment in the province.	34.1	57.4	7.3	1.3	3.24	91.5
7. The risk of future environmental disasters like this one in Viet Nam is small.	7.3	33.9	47.0	11.8	2.37	41.2
Statement	Foreign Investors					Total Agreement (Percent)
	Strongly Agree (Percent)	Agree (Percent)	Disagree (Percent)	Strongly Disagree (Percent)	Scale (4=S. Agree)	
1. After this incident, I am more likely to invest money into complying with environmental regulations now	28.9	64.8	5.5	0.8	3.22	93.8
2. After this incident, my provincial government increased the amount of environmental regulations to avoid future incidents.	21.6	67.1	10.3	1.0	3.09	88.7
3. After this incident, my provincial government increased inspections regarding compliance with environmental regulations.	19.4	69.1	10.0	1.5	3.06	88.5
4. It is the responsibility of businesses to protect the environment, even if it increases business costs.	29.5	67.7	2.3	0.5	3.26	97.3
5. It is the responsibility of provincial governments to enforce environmental regulations, even if it burdens the business community.	25.9	69.2	4.4	0.5	3.21	95.1
6. Provincial governments should not approve new investments that could damage the environment, even if it leads to less employment in the province.	39.6	51.6	7.7	1.1	3.30	91.2
7. The risk of future environmental disasters like this one in Viet Nam is small.	6.7	30.5	47.9	14.9	2.29	37.2

The high scores on these questions mean there is not a lot of room for variation by industry or province. One important exception is whether or not provincial leaders should reject potentially dirty projects. Here, Da Nang, with its heavy reliance on the tourist industry and service sector is significantly different from its peers. Over 97 percent of firms in Da Nang agree with the statement, compared to the 91 percent national average.

**Figure 3.15: Do Provincial Leaders Have a Responsibility to Reject Polluting Projects? (By Province)**



Source: PCI Survey Question G16.5 and PCI-FDI Survey Question M10.5, “A provincial governments should not approve new investments that could damage the environment, even it leads to less employment in the province.” Question plots the share of firms in agreement with the statement.

In line with the perception that increased provincial regulation is warranted, business leaders believe that provincial leaders have responded to the Formosa Steel Company incident with increased activity. Eighty-three percent of domestic firms believe that provincial governments have increased the amount of regulations that govern businesses since the incident, and have correspondingly increased their inspections for compliance with existing regulations. Eighty-nine percent of foreign firms agree that the extent of regulations and regulatory inspections have increased since the incident. Answers to these questions do not vary dramatically across sectors or regions.

Finally, the last lines of Table 3.2 reveal that both foreign and domestic businesses believe there is tremendous room for improvement. Many firms believe that authorities have not

done enough to ward off future crises and that a similar incident could happen again. Only 41 percent of domestic respondents and 37 percent of foreign respondents believe the risk of future environmental disasters is small.

In sum, domestic and foreign business leaders around the country believe the Formosa Steel Company pollution crisis was monumental and worry that a similar environmental disaster could happen again. As a result, almost all respondents, regardless of sector or location, answer that they welcome greater provincial actions to thwart future incidents through greater regulation and implementation of those regulations. Furthermore, even more firms believe that businesses leaders themselves should assume greater responsibility and engage in self-regulation, even if it poses some costs to their businesses in the short term.

## 3.6 CONCLUDING THOUGHTS

In the wake of a series of damaging environmental challenges in the country, this chapter asks firms to reflect upon how pollution affects their business activities. We find that most firms believe that environmental health is important and are willing to pay reasonable costs in terms of their own operations and to accept additional regulation to avoid damaging pollution. Firms in agriculture, aquaculture, finance, and the growing service sector are particularly robust in these beliefs. Firms in these industries report damages to their economic performance resulting from declining environmental quality.

We also find that a large number of firms have tried to combat pollution in their own businesses through self-regulation and training of employees. They report high levels of compliance with provincial regulations, but also a willingness to pursue environmental protection beyond those strictures.

As a result of the Formosa Steel Company pollution event, firms also appear to be more tolerant and accepting of provincial efforts to regulate the environment, even with the understanding that it may cause some injury to their business prospects. This view is particularly strong among domestic firms. Foreign firms, however, are more supportive of self-regulation.

The clear message of this chapter is that the characterization of a single, dichotomous, choice between business growth and environmental health is a false one. A substantial portion of the business community benefits from a green Viet Nam and is supportive of efforts to keep it that way.

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# APPENDICES

## APPENDIX 1

### RELATIONSHIP BETWEEN GOVERNANCE AND INVESTMENT

One question raised by practitioners and analysts in recent years is whether the hard work of improving economic governance, as the PCI defines it, is worth the effort. Will such efforts lead to greater business activity and ultimately economic growth? In this year's report, we test the strength of this relationship using an advanced statistical technique for measuring such time series processes. We find that each one point improvement in the PCI is associated with short term growth in new enterprise registrations of 2.7%. While sizable, this relationship is the immediate return to governance improvement. The benefits of governance also accumulate over time, however. Changes to day may bear fruit several years down the road. The statistical framework also helps us calculate the long-run multiplier of governance improvements in a given year. This indicates that changes today are associated with a 3% increase in additional enterprises over the next ten years.

Theoretically, the Error Correction Model (ECM) is the most appropriate statistical technique for this issue because economic theory suggests that the effects of our key independent variable, as well as many of our controls, will be dynamic and accrue over time. Critically, the use of an ECM also allows us to estimate both short- and long-term effects (De Boef and Keele 2008, 191). The theoretical assumption underlying the use of ECM is that the hypothesized relationship approximates a moving equilibrium in which investment may respond differently to short-term changes in a province's governance, but the actual effects of major reforms may only truly become apparent over the long-term. This fits with our understanding of governance as variable that changes over times, but exhibits underlying stickiness due to historical and cultural determinants.

We estimate the ECM using the following specification:

$$\Delta y_{i,t} = \alpha + \beta_o y_{i,t-1} + \beta_j x_{i,t-1} + \beta_k \Delta x_{i,t} + u_{i,t}$$

where  $\beta_k$  captures the effect of short-run changes and  $\beta_o$ , the coefficient on the lagged dependent variables, captures how quickly the dependent variable returns to equilibrium. Long-run effects are estimated as the product of the short-run effect

$\beta_k \Delta x_{i,t}$  and a long-run multiplier, or  $-\frac{\beta_j + \beta_k}{\beta_o - 1}$

Our dependent or outcome variable (y) is number of newly registered enterprises in a given year to capture new business activity.\* Our key independent variable (x) is the unweighted, core PCI score. The core PCI is the index composed only from consistent PCI indicators that have existed since 2005. Because the methodology remains the same, we can be certain that all improvements are due to actions of the province and not methodological changes, such as the addition of new indicators, weights, or measurements. We use the unweighted PCI measure, because the weighted PCI is specifically calibrated to account for how each subindex contributes to investment.

We show the results of our ECM model in Table A1 along with several sensitivity tests. Model 1 shows the basic ECM framework. Model 2 adds a quadratic time trend to account for potential spurious correlation caused by unrelated improvement in both governance and investment. Model 3 adds structural controls for population and GDP, which also may lead to increased economic activity. Model 4 adds a dummy variable for the five national-level cities, which due to their urban concentrations, better infrastructure, and large market sizes, have disproportionate numbers of enterprises. Finally, Model 5 employs provincial fixed effects, thereby removing the cross-sectional variation and only comparing each province to itself. Models 6 through 8, test the robustness of our main finding to using alternative measures of governance, including a province's overall rank and the annual, unweighted PCI score. The methodology of the annual score has changed over time and therefore does not offer the same consistency as the core PCI.

Figure A1 provides the core finding from our analysis. Panel 1 shows the adjusted regression coefficient on short-term changes in governance from the fully-specified Model 4. We find that a one point improvement on the core PCI, about one quarter of one standard deviation, is associated with a 2.6% improvement in new registered enterprises in the province. This finding is strongly significant ( $t=6.84$ ). The long-term coefficient is also statistically significant but much flatter. Combining the two results into a long-term multiplier, we find that a one point improvement in the PCI builds over time to lead to an increase in 3% more enterprises after a ten year interval.

Table A2 further studies which sub-indices are most responsible for the positive relationship between governance and economic performance. Model 11 further studies the relationship between infrastructure quality, measured by the PCI Infrastructure

Index. Figure A2 distills the main finding by plotting the coefficients along with 90% confidence intervals. Sub-indices to the right that do not overlap with the zero line have positive and significant relationship with governance.

In particular, provinces wishing to improve economic performance, should focus on improving land access, transparency, and labor training. They should also work to reduce the prevalence of informal charges and bias toward state owned enterprises. These all have quite dramatic short term relationships. A one point improvement on Subindex 2 (land), for instance, is associated with nearly a 12% increase in the number of new enterprises. Moreover, long-term multipliers are particular large for land titles (0.15) and reducing bias toward SOEs (0.12).

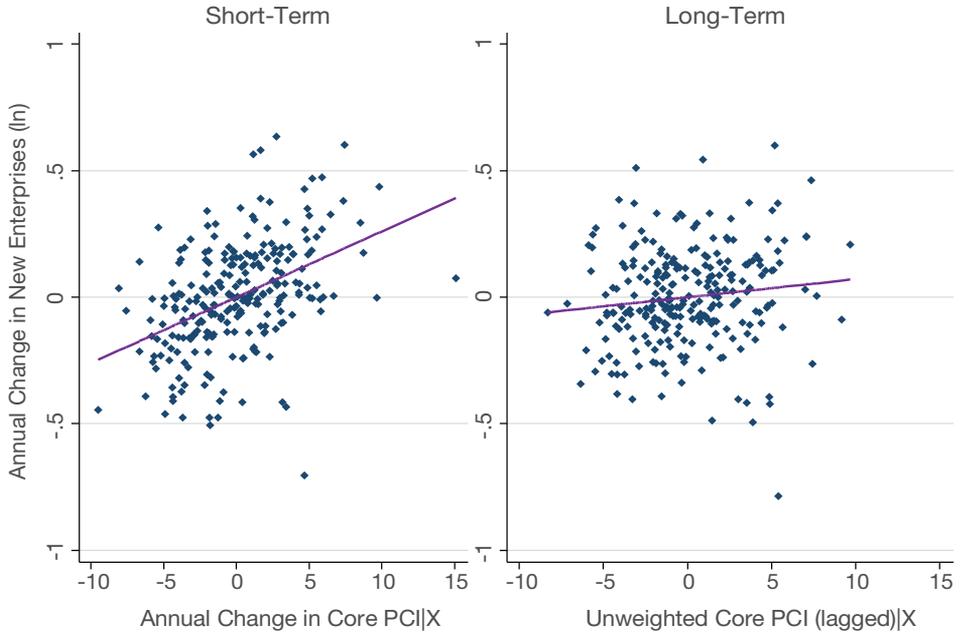
Finally in Figure A3, we perform the same analysis for infrastructure as we did for the total index. We find little evidence that improvements in infrastructure are associated with new business registrations. Both long and short term effects appear to be statistically insignificant. This does not mean that infrastructure is unimportant. However, it does illustrate that poorly endowed provinces can successfully grow healthy business sectors even without tremendous investment in infrastructure.

**Table A1: Error Correction Model of Impact of Governance on New Business Registrations**

<i>Dependent variable=</i> <i>First Difference in</i> <i>New Enterprises (ln)</i>	Unweighted Core PCI				PCI Rank			Unweighted PCI	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Number of New Enterprises (ln, lag)	0.003 (0.008)	-0.005 (0.006)	-0.087*** (0.020)	-0.136*** (0.033)	-1.110*** (0.071)	-0.169*** (0.041)	-1.239*** (0.068)	-0.122*** (0.032)	-1.098*** (0.070)
Core PCI (fd)	0.019*** (0.004)	0.025*** (0.004)	0.027*** (0.004)	0.026*** (0.004)	0.013*** (0.004)	-0.002** (0.001)	0.000 (0.001)	0.022*** (0.003)	0.008* (0.004)
Core PCI (lag)	-0.007*** (0.002)	0.005** (0.002)	0.008*** (0.003)	0.007** (0.003)	0.004 (0.007)	-0.002** (0.001)	0.000 (0.001)	0.004 (0.003)	-0.000 (0.006)
Population in Thousands (fd, lag)			6.435*** (1.355)	5.501*** (1.409)	16.370*** (4.982)	5.282*** (1.686)	10.832* (5.943)	5.135*** (1.397)	12.481** (5.057)
Population in Thousands (ln, lag)			0.141*** (0.034)	0.103*** (0.035)	3.427** (1.370)	0.136*** (0.042)	3.789** (1.494)	0.097*** (0.034)	3.134** (1.459)
GDP in Bill. VND (fd, lag)				0.035** (0.016)	0.020 (0.032)	0.070*** (0.023)	0.035 (0.037)	0.048** (0.019)	0.021 (0.030)
GDP in Bill. VND (ln, lag)				0.078*** (0.018)	0.084 (0.063)	0.079*** (0.022)	0.092 (0.079)	0.078*** (0.018)	0.073 (0.059)
City=1				0.073* (0.040)		0.105** (0.051)		0.066* (0.039)	
Time		0.148*** (0.029)	0.051 (0.084)	0.043 (0.085)	-0.117* (0.062)	0.046 (0.077)	-0.138** (0.067)	-0.338*** (0.096)	-0.276** (0.071)
Time Squared		-0.035*** (0.005)	-0.022* (0.012)	-0.020* (0.012)	0.009 (0.008)	-0.019* (0.011)	0.013 (0.009)	0.037*** (0.014)	0.031*** (0.011)
Constant	0.421*** (0.126)	-0.210 (0.128)	-0.775*** (0.230)	-0.956*** (0.255)	-18.276* (9.763)	-0.629*** (0.218)	-19.876* (10.630)	-0.342 (0.265)	-15.678 (10.448)
Province FE	No	No	No	No	Yes	No	Yes	No	Yes
Observations	315	315	252	250	250	250	250	250	250
Panels	63	63	63	63	63	63	63	63	63
R-squared	0.183	0.345	0.398	0.414	0.0352	0.269	0.0273	0.429	0.0407
RMSE	0.213	0.191	0.199	0.197	0.123	0.220	0.131	0.195	0.124
Long Run Multiplier	0.01	0.03	0.03	0.03	0.01	0.00	0.00	0.02	0.00

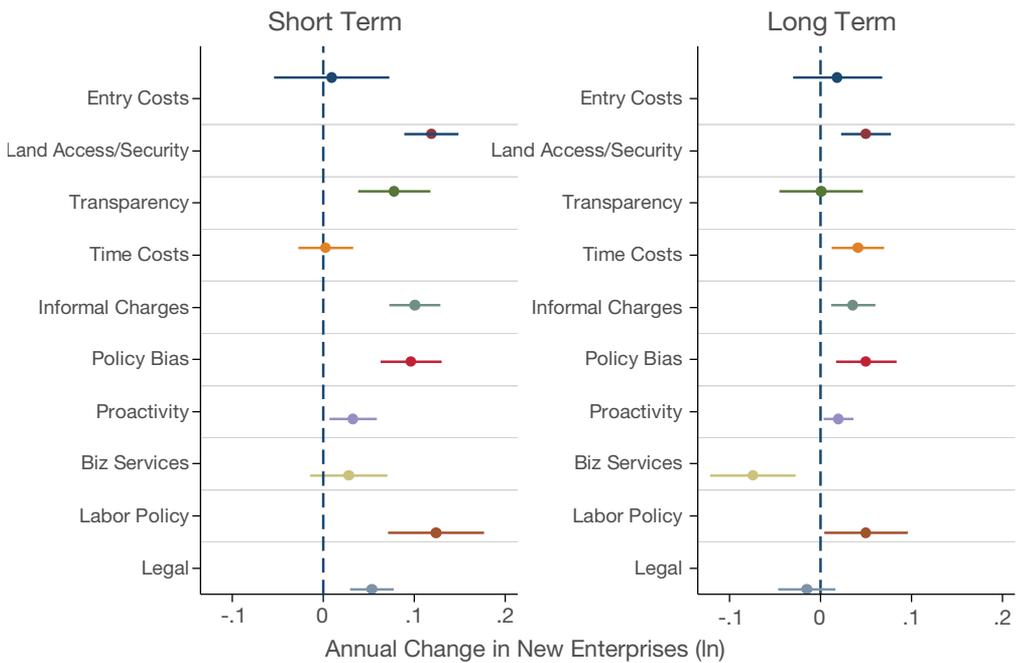
Robust standard errors, clustered at province level, in parentheses (\*\* $p < 0.01$ , \*\* $p < 0.05$ , \* $p < 0.1$ ).  
Notes (fd: first difference; lag: one year lag; ln: natural log)

**Figure A1: Statistical Relationship between Governance and New Investment after Controlling for Structural Determinants**



coef = .02597302, (robust) se = .00379556, t = 6.84    coef = .00718606, (robust) se = .00313655, t = 2.29

**Figure A2: Statistical Relationship between PCI Sub-Indices and New Investment after Controlling for Structural Determinants**

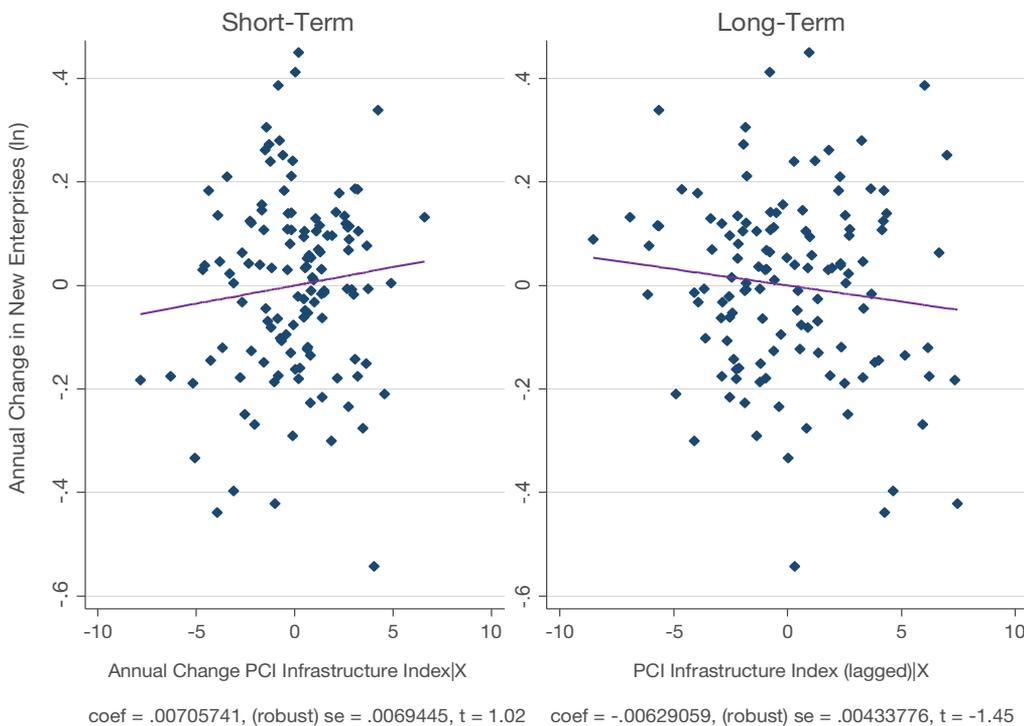


**Table A2: Error Correction Model of Impact of PCI Sub-Indices on New Business Registrations**

<i>Dependent variable= First Difference in New Enterprises (ln)</i>	<b>Entry</b>	<b>Land</b>	<b>Transparency</b>	<b>Time Costs</b>	<b>Informal Charges</b>	<b>Policy Bias</b>	<b>Proactivity</b>	<b>Business Services</b>	<b>Labor Traing</b>	<b>Legal Institutions</b>	<b>Infrastructure</b>
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Number of New Enterprises (ln, lag)	-0.163*** (0.044)	-0.138*** (0.034)	-0.139*** (0.036)	-0.174*** (0.041)	-0.128*** (0.034)	-0.147*** (0.038)	-0.157*** (0.040)	-0.124*** (0.035)	-0.176*** (0.044)	-0.144*** (0.036)	-0.255*** (0.055)
Core Subindex (fd)	0.009 (0.038)	0.119*** (0.018)	0.078*** (0.024)	0.003 (0.018)	0.101*** (0.017)	0.097*** (0.020)	0.033** (0.016)	0.028 (0.026)	0.124*** (0.032)	0.054*** (0.015)	0.024 (0.083)
Core Subindex (lag)	0.019 (0.030)	0.050*** (0.017)	0.001 (0.028)	0.041** (0.017)	0.036** (0.015)	0.050** (0.020)	0.020** (0.010)	-0.074*** (0.029)	0.050* (0.028)	-0.015 (0.019)	0.066 (0.044)
Population in Thousands (ln, lag)	4.360** (1.755)	4.857*** (1.309)	4.220*** (1.510)	5.082*** (1.559)	5.408*** (1.388)	3.854** (1.548)	4.721*** (1.459)	3.715*** (1.382)	5.138*** (1.797)	4.338*** (1.533)	8.155*** (2.369)
Population in Thousands (ln, lag)	0.130*** (0.045)	0.103*** (0.035)	0.105*** (0.040)	0.130*** (0.043)	0.107*** (0.034)	0.111*** (0.041)	0.129*** (0.040)	0.126*** (0.040)	0.142*** (0.044)	0.109*** (0.038)	0.125** (0.060)
GDP in Bill. VND (fd, lag)	0.074*** (0.023)	0.051*** (0.015)	0.052** (0.023)	0.064** (0.025)	0.064** (0.030)	0.065*** (0.024)	0.055*** (0.021)	0.051** (0.025)	0.065*** (0.019)	0.043** (0.018)	1.188*** (0.347)
GDP in Bill. VND (ln, lag)	0.098*** (0.026)	0.090*** (0.021)	0.090*** (0.023)	0.090*** (0.024)	0.071*** (0.019)	0.095*** (0.023)	0.087*** (0.023)	0.087*** (0.019)	0.084*** (0.021)	0.092*** (0.021)	0.157*** (0.045)
City=1	0.101* (0.054)	0.087* (0.052)	0.081 (0.050)	0.109** (0.052)	0.062 (0.045)	0.089* (0.050)	0.109** (0.047)	0.134** (0.053)	0.106** (0.047)	0.078 (0.049)	0.175** (0.080)
Time	0.061 (0.078)	0.061 (0.081)	0.064 (0.100)	0.000 (0.086)	0.107 (0.084)	0.017 (0.092)	0.069 (0.077)	-0.300** (0.147)	0.015 (0.081)	-0.229** (0.115)	-0.228*** (0.037)
Time Squared	-0.020* (0.011)	-0.023** (0.011)	-0.023* (0.014)	-0.016 (0.012)	-0.031*** (0.012)	-0.020 (0.012)	-0.021* (0.011)	0.029 (0.022)	-0.014 (0.011)	0.023 (0.017)	0,00 (0.017)
Constant	-1.055** (0.456)	-1.066*** (0.241)	-0.730*** (0.242)	-0.875*** (0.256)	-0.859*** (0.222)	-0.931*** (0.248)	-0.924*** (0.241)	-0.014 (0.294)	-0.908*** (0.271)	-0.268 (0.287)	-0.865** (0.393)
Province FE	No	No	No	No	No	No	No	No	No	No	No
Observations	250	250	250	250	250	250	250	250	250	250	126
Panels	63	63	63	63	63	63	63	63	63	63	63
R-squared	0.254	0.362	0.341	0.268	0.390	0.327	0.274	0.336	0.289	0.345	0.442
RMSE	0.222	0.206	0.209	0.220	0.201	0.211	0.219	0.210	0.217	0.208	0.164
Long-Range Multiplier	0.02	0.15	0.07	0.04	0.12	0.13	0.05	-0.04	0.15	0.03	0.07

*Robust standard errors, clustered at province level, in parentheses (\*\*\*)  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ ).  
Notes (fd: first difference; lag: one year lag; ln: natural log)*

**Figure A3: Statistical Relationship between Infrastructure and New Investment after Controlling for Structural Determinants**



## APPENDIX 2

### LIST OF INDICATORS OF THE CORE PCI

Item	Source
<b>Sub-Index 1 – Entry</b>	
1. Length of business registration in days (median)	PCI questionnaire: C1
2. Length of business re-registration in days (median)	PCI questionnaire: C2
3. Median number of days to wait for Land Use Rights Certificate	PCI questionnaire: B4.2
4. Percentage of firms waiting for more than one month to complete all steps necessary to start operations	PCI questionnaire: C5
5. Percentage of firms waiting more than three months to complete all steps necessary to start operations.	PCI questionnaire: C5
<b>Sub-Index 2 – Land Access and Security</b>	
1. Percentage of firms that own land and are in possession of an LURC	PCI questionnaire: B1 and B4
2. Percentage of land that has been registered and provided with official LURCs	Ministry of National Resources and Environment (MONRE)
3. Firms' rating of expropriation risk (from 1-Very High to 5-Very Low)	PCI questionnaire: B4.3
<b>Sub-Index 3 – Transparency</b>	
1. Access to planning documents (1=easy to access; 5= impossible to access)	PCI Survey Question: F1.1-F1.13
2. Access to legal documents (1=easy to access; 5= impossible to access)	PCI Survey Question: F1.1-F1.13†
3. Relationship important or very important to get access to provincial documents (% Important or Very Important)	PCI Survey Question: F2
4. Negotiations with tax authority are an essential part of doing business (% Agree or Strongly Agree)	PCI Survey Question: D14.3
5. Predictability of implementation of central laws at the provincial level (% Usually or Always)	PCI Survey Question: F8
<b>Sub-Index 4 - Time Costs of Regulatory Compliance</b>	
1. Percentage of firms spending over 10 percent of their time on understanding and complying with regulations	PCI Survey Question: D6
2. Median number of inspections (all agencies)	PCI Survey Question: D1
3. Median tax inspection hours	PCI Survey Question: D4
<b>Sub-Index 5 - Informal Charges</b>	
1. Enterprises in my line of business usually have to pay for informal charges (% agree or totally agree)	PCI Survey Question: D10
2. Percentage of firms paying over 10 percent of their revenue for informal charges	PCI Survey Question: D11
3. Rent-seeking phenomenon is popular in handling administrative procedures for businesses (% strongly agree or agree)	PCI Survey Question: D14.2
4. Percentage of firms saying that informal charges usually or always deliver expected results	PCI Survey Question: D12

<b>Sub-Index 6 - Policy Bias</b>	
1. Province give privileges to state-owned economic group, corporations, causing difficulties to your business (% Agree)	PCI Survey Question: H4
2. Province give priority in solving problems and difficulties to foreign companies over domestic one (% agree)	PCI Survey Question: H2.7
3. "Contracts, land, ..., and other economic resources mostly fall in the hands of enterprises that have strong connections to local authorities" (% agree)	PCI Survey Question: H5
4. Preferential treatment to big companies (both state-owned and nonstate) is an obstacle to their business operations (% agree)	PCI Survey Question: H.2.5
<b>Sub-Index 7 - Proactivity</b>	
1. Firms' assessment of the attitude of provincial government toward private sector (% Very Positive or Very Positive)	PCI Survey Question: H1
2. The PPC is flexible within the legal framework to create favorable business environment for nonstate firms (% Strongly Agree or Agree)	PCI Survey Question: H2.2
3. The PPC is very proactive and innovative in solving new problems (% Strongly Agree or Agree)	PCI Survey Question: H2.3
<b>Sub-Index 8 - Business Support Services</b>	
1. Number of trade fairs held by province in previous year and registered for present year (Ministry of Industry and Trade)	VietTrade, Ministry of Industry and Trade
2. Ratio of the number of service providers to the total number of firms	General Department of Taxation
3. Ratio of the number of nonstate and FDI service providers to the total number of service providers (General Department of Taxation data)	General Department of Taxation
4. Firm has used business information search services (%) (e7_1_1)	PCI Survey Question: E6
5. Firm used private provider for business information search services (%)	PCI Survey Question: E6
6. Firm intends to use business information search services again (%)	PCI Survey Question: E6.1
7. Firm has used consulting on regulatory information (%)	PCI Survey Question: E6
8. Firm used private provider for consulting on regulatory information (%)	PCI Survey Question: E6
9. Firm intends to use regulatory consulting services again (%)	PCI Survey Question: E6.1
10. Firm has used business match making services(%)	PCI Survey Question: E6
11. Firm used private provider for business match making services (%)	PCI Survey Question: E6
12. Firm intends to use business match making services again (%)	PCI Survey Question: E6.1
13. Firm has used trade promotion services (%)	PCI Survey Question: E6
14. Firm used private provider for trade promotion services (%)	PCI Survey Question: E6
15. Firm intends to use trade promotion services again (%)	PCI Survey Question: E6.1
16. Firm has used technology related services (%)	PCI Survey Question: E6
17. Firm used private provider for technology related services (%)	PCI Survey Question: E6
18. Firm intends to use above service provider again for technology related services (%)	PCI Survey Question: E6.1

<b>Sub-index 9 – Labor quality</b>	
1. Services provided by provincial agencies - general education (% Very Good or Good)	PCI Survey Question: E1.7
2. Services provided by provincial agencies – vocational training (% Very Good or Good)	PCI Survey Question: E1.8
3. Firm has used labor exchange services (%)	PCI Survey Question: E6
4. Firm used private provider for above labor exchange services (%)	PCI Survey Question: E6
5. Firm intends to use labor exchange services again (%)	PCI Survey Question: E6.1
6. Overall Satisfaction with Labor (% Agreeing labor meets firm needs)	PCI Survey Question: E9
7. Ratio of vocational training school graduates to untrained laborers	Ministry of Labor, Invalids and Social Affairs
8. Laborers with technical training as % of workforce	
<b>Sub-index 10 – Legal institutions</b>	
1. Legal system provided mechanism for firms to appeal against officials' corrupt behavior (% Always or Usually)	PCI Survey Question: G2
2. Firm confident that legal system will uphold property rights and contracts (% Strongly Agree or Agree)	PCI Survey Question: G1
3. Cases filed by non-state entities at Provincial Economic Courts per 100 firms (Supreme Court)	People's Supreme Court
4. Non-state claimants as a percentage of claimants at Provincial Economic Courts (Supreme Court)	People's Supreme Court

## APPENDIX 3 DETAILS OF 10 PCI SUB-INDICES (2006-2016)

Table 3.1: Comparison of Entry Costs Sub-Index (2006-2016)

Indicator	Source (2015 Survey)	Measure	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	
Length of business registration in days (Median).	PCI Survey Question: C1	Min	12	7	5	6.5	7	7	7	7	8	5	3.75	
		Median	20	15	12.25	10	10	8.5	10	10	12	8	7	
		Max	58	22.5	15	15	15	15	15	15	17.5	19	12	10
		Correlation w/ Previous Year	NA	0.27*	0.46*	0.56*	0.49*	0.41*	0.52*	0.48*	0.26*	0.45*	0.44*	
Length of business re-registration in days (Median).	PCI Survey Question: C2	Min	6	3	3	3	2.5	3	3	3	2	2	1.5	
		Median	10	7	7	7	7	7	7	7	7	5	5	
		Max	35	15	10	10	12.5	14.5	15	15	7	10.5	7	7
		Correlation w/ Previous Year	NA	0.24*	0.53*	0.67*	0.48*	0.29*	0.24	0.29*	0.47*	0.31*	0.54*	
Median number of days to wait for Land Use Rights Certificate	PCI Survey Questions: B4,2	Min	40	30	30	15	20	15	15	15	15	10	7	
		Median	121	60	38.5	32.5	30	30	30	30	30	30	30	
		Max	338	180	105	180	150	90	105	105	240	365	95	60
		Correlation w/ Previous Year	NA	0.16	0.43*	0.23*	0.26*	0.12*	0.18	0.12	0.03	0.27*	0.06	
Percentage of firms waiting for more than one month to complete all steps necessary to start operations	PCI Survey Question: C5	Min	3.23	5.18	6.67	3.84	0	0	0	0	0	1.16	0.00	
		Median	25.81	27.21	21.91	19.35	24.39	14.7	13.95	16.67	9.80	12.20	13.24	
		Max	44	53.8	39.13	38.46	39.62	33.3	42.42	45.45	27.27	28.57	27.27	
		Correlation w/ Previous Year	0.24	0.26*	0.15	0.09	0.39*	0.08*	0.2	0.03	0.32*	0.27*	-0.09	

Indicator	Source (2015 Survey)	Measure	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	
Percentage of firms waiting more than three months to complete all steps necessary to start operations.	PCI Survey Question: C5	Min	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	
		Median	5.78	6.78	5.72	4.44	5.77	3.33	2.94	3.57	1.92	2.22	2.22	2.08
		Max	25.64	27.27	16	20.72	18.87	14.8	13.04	18.18	18.18	18.18	9.30	10.87
		Correlation w/ Previous Year	0.02	0.15	0.18	0.02	0.14	0.02*	0.04	0.15	0.23	0.17	0.17	-0.12
Percentage of firms registering or re-registering through one-stop-shop.	PCI Survey Question: C3	Min								41.58	35.24	44.55	95.31	
		Median								63.41	79.17	84.78	100.00	
		Max								85.71	94.44	97.22	100.00	
		Correlation w/ Previous Year								0.18	-0.06	0.24	0.24	0.14
Procedures at one-stop-shop are transparently listed (% Agree)	PCI Survey Question: C3.1.1	Min								21.43	40.91	43.42	39.30	
		Median								39.02	61.43	61.43	59.82	
		Max								66.20	79.17	75.86	76.67	
		Correlation w/ Previous Year								N.A	0.24	0.53*	0.36*	
Guidance and instruction on procedures at one-stop-shop are clear and adequate (% Agree)	PCI Survey Question: C3.1.2	Min								26.67	52.04	48.83	44.00	
		Median								41.14	75.00	71.13	72.31	
		Max								66.90	88.37	87.64	84.09	
		Correlation w/ Previous Year								N.A	0.19	0.57*	0.63*	

Indicator	Source (2015 Survey)	Measure	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	
Staffs at one-stop-shop are professional and knowledgeable (% Agree)	PCI Survey Question: C3.1.3	Min								10.61	23.47	23.94	23.07	
		Median								25.52	42.50	39.64	40.90	
		Max									56.38	57.69	53.66	57.49
		Correlation w/ Previous Year									N.A	0.23	0.40*	0.50*
Staffs at one-stop-shop are friendly (% Agree)	PCI Survey Question: C3.1.4	Min								10.61	15.31	17.51	19.50	
		Median								24.71	42.62	40.63	42.70	
		Max									56.38	68.42	61.64	62.50
		Correlation w/ Previous Year									N.A	0.26*	0.58*	0.67*
IT application at one-stop-shop is good (% Agree)	PCI Survey Question: C3.1.5	Min								3.91	14.29	17.05	17.44	
		Median								16.07	28.57	27.72	29.33	
		Max									44.68	48.08	42.47	50.54
		Correlation w/ Previous Year									N.A	0.16	0.04	0.63*
None of the criteria above are met (% Agree)	PCI Survey Question: C3.1.6	Min								0.00	0.00	0.00	0.00	
		Median								1.70	4.48	4.49	5.00	
		Max									8.94	20.41	12.93	14.00
		Correlation w/ Previous Year									N.A	0.41*	0.56*	0.47*

\* Significant at 5% level. NA = Not applicable

All values are at the provincial level.

Data include only firms registered within two calendar years preceding the survey.

2005 data only include 42 provinces and do not include the full set of indicators used in subsequent years, reflecting changes in survey questions and ordering in 2006.

**Table 3.2: Comparison of Land Access and Tenure Security Sub-Index (2006-2016)**

Indicator	Source (2015 Survey)	Measure	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	
Percentage of firms that own land and are in possession of an LURC	PCI Survey Question: B4	Min	23.29	51.35	38.36	46.82	26.67	34.04	54.32	50.91	29.33	33.33	26.19	
		Median	55.28	75.57	81.16	73.68	72.89	77.55	75.86	76.54	55.07	57.58	61.90	
		Max	77.78	92.45	94.74	94.51	95.89	97.05	93.59	88.57	81.43	86.96	83.72	
		Correlation w/ Previous Year		0.76*	0.70*	0.77*	0.80*	0.67*	0.49*	0.56*	0.67*	0.79*	0.70*	
Percentage of land that has been registered and provided with official LURCs	Ministry of Natural Resources and the Environment Datasets†	Min	11.3	13.28	19.52	23.52	27.27	42.82	29.22	76.50	85.83	85.83	85.83	
		Median	69.2	63.13	77.56	77.89	80.71	79.24	82.21	90.50	92.34	92.43	92.43	
		Max	96.5	97.46	98.75	98.56	98.31	98.03	97.65	99.40	99.57	99.57	99.57	
		Correlation w/ Previous Year		0.85*	0.78*	0.87*	0.87*	0.73*	0.85*	0.30*	0.74*	0.99*	1.00*	
Percentage of firms that say nonstate enterprises do not have difficulties in accessing land or expanding premises	PCI Survey Question: B7	Min				11.02	8.27	12.2	11.25	16.13	12.39	9.90	10.91	
		Median				30.72	23.89	30	31.32	39.50	22.22	28.33	29.70	
		Max				52.32	49	68.5	52.89	58.44	52.44	45.10	41.43	
		Correlation w/ Previous Year				NA	0.42*	0.23	0.26*	0.14	0.22	0.62*	0.52*	
Firms' rating of expropriation risk (1: Very High to 5: Very Low);	PCI Survey Question: B4.3	Min	1.95	1.74	1.63	2.11	1.91	1.86	2.16	2.05	1.84	1.89	1.32	
		Median	2.49	2.24	2.04	2.55	2.56	2.90	2.71	2.80	2.33	2.34	1.73	
		Max	3.05	2.57	2.49	3.05	3.30	3.35	3.22	3.59	2.87	2.87	2.79	2.07
		Correlation w/ Previous Year		0.28*	0.95*	0.29*	0.31*	-0.0035	0.15	0.05	0.21	0.01		
Percentage of firms that say compensation for land is always or highly likely fair	PCI Survey Question: B4.4	Min	21.43	22.22	21.25	16.9	19.12	14.7	12.95	22.78	15.56	13.04	10.29	
		Median	40	40.76	38.82	40.54	39.9	35.8	36.67	40.32	34.00	30.00	25.45	
		Max	58.33	57.14	52.75	55.17	55.38	61.8	69.23	68.66	51.35	50.75	37.70	
		Correlation w/ Previous Year		0.37*	0.34*	0.42*	0.37*	0.17	0.18	-0.05	0.06	0.34*	0.37*	

Indicator	Source (2015 Survey)	Measure	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	
Percentage of firms that agree that changes in government land prices reflect changes in market prices	PCI Survey Question: B5	Min				53.33	53.91	41.9	36.02	60.00	56.55	53.66	53.76	
		Median				69.75	72	68	69.57	77.06	71.43	76.09	73.73	
		Max				81.11	86.17	86.2	87.64	89.87	85.23	87.04	83.33	
		Correlation w/ Previous Year				NA	0.43*	0.36*	0.14	0.29*	0.41*	0.56*	0.46*	
Percentage of firms that have completed land procedures in the last two years and have encountered no difficulties in land-related procedures	PCI Survey Question: B6.1	Min								21.74%	16.67%	15.00%	15.38%	
		Median								44.44%	41.38%	34.29%	33.33%	
		Max									73.33%	61.54%	73.08%	67.86%
		Correlation w/ Previous Year									N.A	0.14	0.07	0.27*
Percentage of firms that want to have LURCs but don't have LURCs because of complicated procedures and troublesome staffs	PCI Survey Question: B4.5	Min								3.03	8.89	12.77	6.67	
		Median								16.13	27.03	25.71	25.00	
		Max									50.00	45.24	53.13	50.00
		Correlation w/ Previous Year									N.A	0.51*	0.28*	0.41*

\* Significant at 5% level; NA = Not applicable

All values are at the provincial-level.

2005 data only include 42 provinces and do not include the full set of indicators used in subsequent years, reflecting changes in survey questions and ordering in 2006.

† The Ministry of Natural Resources and the Environment changed the calculation of LURCs between 2003 and 2007 in the 5 national-level cities, leading to major reductions. To address this the old calculation was applied to cities.

**Table 3.3: Comparison of Transparency Sub-Index (2006-2016)**

Indicator	Source (2015 Survey)	Measure	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	
Access to planning documents (1=easy to access; 5= impossible to access)	PCI Survey Question: F1.1-F1.13†	Min	2.25	2.20	2.25	2.13	2.00	2.28	1.81	2.17	1.90	2.14	2.13	
		Median	2.63	2.51	2.55	2.44	2.31	2.51	2.39	2.61	2.25	2.38	2.39	
		Max	3.17	2.96	2.79	3.08	2.62	2.97	3.14	3.31	3.31	2.51	2.65	2.71
		Correlation w/ Previous Year	0.39*	0.64*	0.61*	0.49*	0.48*	0.23	0.29*	-0.18	-0.28*	0.05	0.34*	
Access to legal documents (1=easy to access; 5= impossible to access)	PCI Survey Question: F1.1-F1.13†	Min	2.86	2.63	2.80	2.68	2.79	2.57	1.98	2.57	2.86	2.79	2.83	
		Median	3.15	3.05	3.11	3.11	3.05	3.03	2.84	3.14	3.10	3.03	3.10	
		Max	3.53	3.38	3.36	3.61	3.44	3.83	3.38	3.59	3.31	3.29	3.29	3.30
		Correlation w/ Previous Year	0.31*	0.61*	0.59*	0.38*	0.56*	0.55*	0.32*	0.17	0.18	0.44*	0.38*	
Relationship important or very important to get access to provincial documents (% Important or Very Important)	PCI Survey Question: F2	Min	31.48	38.4	33.57	45.57	37.28	41.17	29.73	30.33	63.51	59.52	47.42	
		Median	62.5	56.6	49.82	61.26	78.64	75.00	62.20	51.47	73.21	76.19	66.33	
		Max	77.14	73.4	67.9	78.26	95.71	93.33	82.69	74.68	88.31	89.29	86.41	
		Correlation w/ Previous Year	0.27	0.38*	0.55*	0.37*	0.30*	-0.05	0.18	0.21	0.20	0.37*	0.45*	
Negotiations with tax authority are an essential part of doing business (% Agree or Strongly Agree)	PCI Survey Question: D14.3	Min	47.17	24.1	17.39	29.69	23.75	7.69	14.53	17.98	32.38	28.57	34.21	
		Median	61.05	44.7	36.71	41.32	40.78	41.09	39.21	39.44	49.25	52.00	49.04	
		Max	86.96	73.2	54.25	62.4	67.04	62.67	67.78	62.60	64.29	66.95	71.84	
		Correlation w/ Previous Year	-0.16	0.52*	0.73*	0.36*	0.27*	0.09	0.37*	-0.16	0.02	0.57*	0.43*	

Indicator	Source (2015 Survey)	Measure	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	
Predictability of implementation of central laws at the provincial level (% Usually or Always)	PCI Survey Question: F6	Min	2.76	1.89	1.03	3.57	2.38	0.00	1.30	1.35	1.92	2.08	1.08	
		Median	9.49	7.96	6.94	8.4	8.97	8.57	6.60	6.60	8.18	8.27	7.50	6.67
		Max	37.88	18.3	15.69	22.22	20.24	29.48	13.51	13.51	23.17	18.07	18.75	15.30
		Correlation w/ Previous Year	0.38*	0.46*	0.3*	0.50*	0.10	0.22	0.19	0.19	0.10	0.19	0.27*	0.33*
Business Associations's role in advising and countering provincial policies (% Important or Very Important)**	PCI Survey Question: F4	Min				18.64	15.15	9.52	15.33	16.16	21.74	27.27	28.95	
		Median				35.71	37.04	31.25	31.81	30.11	42.64	43.16	40.28	
		Max				57.32	55.56	60.60	66.25	55.75	59.26	61.25	61.25	52.56
		Correlation w/ Previous Year				NA	0.32*	0.03	0.11	0.24	0.35*	0.42*	0.49*	
Openness and quality of provincial webpage	Analysis by PCI Research Team (For Scorecard See Section )\p	Min	0	0	0	0	0.00	9.00	0.00	11.50	15.00	17.00	20.00	
		Median	9	13.75	14.25	15	15.00	15.00	14.00	14.00	25.50	29.00	30.00	31.00
		Max	18	20	20	20	19.00	20.00	20.00	20.00	38.00	44.00	42.00	42.00
		Correlation w/ Previous Year	0.36*	0.51*	0.70*	0.74*	0.79*	0.69*	0.50*	0.57*	0.82*	0.91*	0.72*	
Percentage of firms have accessed provincial websites (%)	PCI Survey 2013 Question: F5	Min								21.43	47.47	51.43	61.54	
		Median								50.99	64.18	71.91	76.84	
		Max								70.00	78.23	87.03	86.00	
		Correlation w/ Previous Year									N.A	0.25*	0.48*	0.58*

Indicator	Source (2015 Survey)	Measure	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	
Budget documents have enough details for use in business activities (% YES)	PCI Survey 2013 Question: F2.2	Min								35.71	53.33	70.00	67.86	
		Median								76.92	80.65	83.33	82.93	
		Max									100	94	97	100
		Correlation w/ Previous Year									N.A	-0.15	0.01	-0.04
Budget documents are published right after being approved (% YES)	PCI Survey 2013 Question: F2.2	Min								27.27	48.39	46.34	42.86	
		Median								66.67	71.43	70.00	69.57	
		Max									100	95	92.31	84.62
		Correlation w/ Previous Year									N.A	0.02	0.07	0.04

\* Significant at 5% level; NA = not applicable

All values are at the provincial level.

2005 data only include 42 provinces.

† Indicators result from factor analysis of 13 documents. In 2009, the scale was simplified to reflect the average access on a 5 pt. scale (1 very difficult to 5 very easy)

ψ In 2007 and 2008, 0.5 values were allowed to denote provinces that provided the relevant information, but not in a sufficient manner to be useful.

\*\* Only Business Association members respond

Table 3.4: Comparison of Time Costs of Regulatory Compliance (2006-2016)

Indicator	Source (2009 Survey)	Measure	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	
Percentage of firms spending over 10 percent of their time on understanding and complying with regulations	PCI Survey Question: D6	Min	6.52	10.94	13.83	7.27	8.13	2.74	3.22	7.88	18.56	21.95	24.71	
		Median	21.24	21.87	22.99	15.38	19	11.26	13.84	20.95	20.95	35.62	35.51	35.71
		Max	39.39	43.75	42.55	30.36	35.37	31.57	28.57	44.44	44.44	51.09	49.41	51.52
		Correlation w/ Previous Year	0.44*	0.62*	0.67*	0.44*	0.24	0.25*	0.45*	0.13	0.32*	0.24	0.27*	0.31*
Median number of inspections (all agencies)	PCI Survey Question: D1	Min	0	1	1	1	1	1	0	1	1	1	1	
		Median	1	1	1	1	1	1	1	1	1	1	2	1
		Max	2	2	2	2	2	2	2	2	2	2	3	2
		Correlation w/ Previous Year	0.35*	0.30*	0.46*	0.34*	0.51*	0.14	0.26*	0.32*	0.45*	0.44*	0.54*	0.54*
Median tax inspection hours	PCI Survey Question: D4	Min	1	2	1	1	1	1	1	2	2	1	1	
		Median	8	8	8	5	4	4	4	8	8	8	4.5	8
		Max	40	40	32	40	28	24	24	40	40	40	32	40
		Correlation w/ Previous Year	0.62*	0.86*	0.88*	0.75*	0.33*	0.30*	0.21	0.53*	0.70*	0.75*	0.61*	0.61*
Government officials are effective (% Strongly agree or Agree)	PCI Survey Question: D8.1	Min								58.85	50.00	47.04	40.91	
		Median								75.44	64.58	67.38	58.02	
		Max								91.76	88.73	87.36	82.65	
		Correlation w/ Previous Year								N.A	0.64*	0.71*	0.63*	
Government officials are friendly (% Strongly agree or Agree)	PCI Survey Question: D8.2	Min								40.16	34.78	35.53	47.47	
		Median								70.00	58.24	59.43	65.56	
		Max								86.67	82.56	83.72	88.66	
		Correlation w/ Previous Year								N.A	0.48*	0.71*	0.68*	

Indicator	Source (2009 Survey)	Measure	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	
Firms don't have to travel many trips to obtain stamps and signatures (% Strongly agree or Agree)	PCI Survey Question: D8.3	Min								51.58	38.20	42.06	46.39	
		Median								70.13	60.96	61.15	63.28	
		Max									86.14	78.13	80.00	85.41
		Correlation w/ Previous Year									N.A	0.68*	0.74*	0.67*
Paperwork is simple (% Strongly agree or Agree)	PCI Survey Question: D8.4	Min								44.79	30.30	34.43	31.53	
		Median								62.50	46.02	51.24	49.52	
		Max									84.00	68.18	71.74	74.22
		Correlation w/ Previous Year									N.A	0.50*	0.67*	0.56*
Fees are listed publicly (% Strongly agree or Agree)	PCI Survey Question: D8.5	Min								80.00	79.35	80.72	78.72	
		Median								90.51	89.19	89.32	91.11	
		Max									98.67	97.17	95.87	97.96
		Correlation w/ Previous Year									N.A	0.48*	0.19	0.35*
No noticeable improvements are made (% Strongly agree or Agree)	PCI Survey Question: D8.7	Min								43.28	0.00	0.00	0.00	
		Median								74.24	4.30	4.70	4.93	
		Max									90.74	12.77	11.49	17.71
		Correlation w/ Previous Year									N.A	0.11	0.29*	0.32*

\* Significant at 5% level; NA = not applicable  
 All values are at the provincial level.  
 2005 data only include 42 provinces.

Table 3.5: Comparison of Informal Charges (2006-2016)

Indicator	Source (2015 Survey)	Measure	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Enterprises in my line of business usually have to pay for informal charges (% agree or totally agree)	PCI Survey Question: D9	Min	53.57	40	45.54	35.38	20.78	25	28.57	27.54	44.44	47.37	45.16
		Median	70	66.25	65.93	59.4	58.23	51.39	53.17	50.43	64.56	66.03	66.04
		Max	84.62	82.72	83.59	77.47	77.11	75.68	74.19	72.38	80.81	79.38	76.04
		Correlation w/ Previous Year	0.05	0.56*	0.64*	0.66*	0.73*	0.61*	0.33*	0.42*	0.55*	0.59*	0.67*
Percentage of firms paying over 10 percent of their revenue for informal charges	PCI Survey Question: D10	Min	4.35	1.39	2.13	2.61	0	0	0	0.72	1.52	3.23	3.49
		Median	12.99	11.54	9.89	8.75	6.78	6.56	6.45	6.96	10.34	11.11	9.09
		Max	34.38	26.19	22.08	20.78	16.92	18.42	22.73	26.56	27.91	24.32	24.72
		Correlation w/ Previous Year	0.21	0.45*	0.55*	0.60*	0.43*	0.15*	0.23	0.67*	0.54*	0.63*	0.68*
Rent-seeking phenomenon is popular in handling administrative procedures for businesses (% strongly agree or agree)	PCI Survey Question: D14.2	Min	22.86	17.44	20	23.93	22	18.06	18	20.27	3.59	43.82	40.66
		Median	39.76	38.21	37.12	50.35	50	40.28	43.75	41.18	65.56	65.38	58.54
		Max	76.74	79.41	64.54	71.64	73.11	73.13	68.85	75.32	78.32	77.52	77.14
		Correlation w/ Previous Year	NA	0.78*	0.68*	0.66*	0.63*	0.50*	0.51*	0.43*	0.46*	0.68*	
Percentage of firms saying that informal charges usually or always deliver expected results	PCI Survey Question: D11	Min	20.83	29.03	27.94	35.42	36.4	36.9	24.75	36.84	40.32	42.11	38.46
		Median	47.89	48.28	48.99	51.51	56.32	61.11	60.71	63.16	61.33	62.37	55.68
		Max	65.93	59.8	62.91	69.01	71.64	82.35	76.81	87.23	84.06	76.25	71.28
		Correlation w/ Previous Year	NA	0.2	0.50*	0.50*	0.53*	0.34*	-0.0832	0.18	0.22	0.49*	0.64*
Informal charges are at acceptable levels (% Strongly agree or Agree)	PCI Survey Question: D8.6	Min								66.67	61.22	58.54	64.53
		Median								80.19	77.59	76.84	79.17
		Max								97.92	92.77	90.09	94.17
		Correlation w/ Previous Year								N.A	0.43*	0.48*	0.37*

\* Significant at 5% level; NA = not applicable

All values are at the provincial level.

2005 data only include 42 provinces and do not include the full set of indicators used in subsequent years.

**Table 3.6: Comparison of Policy Bias (2013-2016)**

Indicator	Source (2015 Survey)	Measure	2013	2014	2015	2016
Province give privileges to state-owned economic group, corporations, causing difficulties to your business (% Agree)	PCI Survey Question: H4	Min	18.26	21.69	25.30	27.43
		Median	32.14	35.00	39.29	37.89
		Max	42.86	51.19	50.89	51.68
		Correlation w/ Previous Year	N.A	-0.30*	0.31*	0.38*
Land access as a privilege to state-owned economic group (% Agree)	PCI Survey Question: H4.1.1	Min	13.04	14.04	14.12	14.93
		Median	27.59	25.77	26.53	31.39
		Max	51.11	36.08	36.98	50.55
		Correlation w/ Previous Year	N.A	0.13	0.42*	0.27*
Credit access as a privilege to state-owned economic group (% Agree)	PCI Survey Question: H4.1.2	Min	13.04	17.31	10.59	18.48
		Median	27.59	25.51	26.23	26.74
		Max	47.92	42.86	37.84	38.82
		Correlation w/ Previous Year	N.A	0.17	0.50*	0.44*
Mineral exploitation license as a privilege to state-owned economic group (% agree)	PCI Survey Question: H4.1.3	Min	5.88	5.26	8.16	6.67
		Median	19.51	17.00	17.76	21.05
		Max	35.42	30.93	31.03	40.00
		Correlation w/ Previous Year	N.A	0.17	0.66*	0.33*
Faster and simpler administrative procedures as a privilege to state-owned economic group (% agree)	PCI Survey Question: H4.1.4	Min	5.80	6.67	13.92	14.77
		Median	25.86	19.30	23.00	22.22
		Max	45.21	33.33	36.25	45.20
		Correlation w/ Previous Year	N.A	-0.03	0.18	0.13
Ease in getting state contracts as privilege to state-owned economic group (% agree)	PCI Survey Question: H.4.1.5	Min	13.04	14.52	10.59	13.70
		Median	35.00	23.86	27.06	25.53
		Max	56.25	41.67	37.50	43.33
		Correlation w/ Previous Year	N.A	-0.03	0.35*	0.33*

Indicator	Source (2015 Survey)	Measure	2013	2014	2015	2016
Province give priority in solving problems and difficulties to foreign companies over domestic one (% agree)	PCI Survey Question: H2.7	Min	11.54	23.61	25.68	29.63
		Median	28.30	42.59	47.22	42.35
		Max	49.25	59.75	66.67	61.39
		Correlation w/ Previous Year	N.A	0.26*	0.70*	0.52*
Province give priority to FDI attraction than private sector development (% agree)	PCI Survey Question: H3	Min	17.81	21.57	27.27	23.46
		Median	29.50	42.86	48.75	45.26
		Max	46.30	55.41	66.92	63.72
		Correlation w/ Previous Year	N.A	0.48*	0.65*	0.73*
Advantage in land access for FIEs (% agree)	PCI Survey Question: H3.1.1	Min	4.71	9.09	9.30	15.85
		Median	12.64	28.30	27.81	32.29
		Max	26.67	44.34	45.24	55.23
		Correlation w/ Previous Year	N.A	0.64*	0.68*	0.80*
CIT reduction and holiday for FIEs (% agree)	PCI Survey Question: H3.1.2	Min	2.86	8.62	10.81	9.86
		Median	9.64	23.01	21.25	23.81
		Max	24.81	35.96	40.43	42.39
		Correlation w/ Previous Year	N.A	0.36*	0.59*	0.58*
Advantage in procedures (faster, simpler) for FIEs (% agree)	PCI Survey Question: H3.1.3	Min	3.66	8.62	10.84	11.69
		Median	10.85	20.91	20.93	20.21
		Max	22.07	36.36	40.43	36.44
		Correlation w/ Previous Year	N.A	0.48*	0.62*	0.55*
More government support during FIEs operation (% agree)	PCI Survey Question: H3.1.4	Min	6.17	8.62	12.87	13.41
		Median	13.48	28.30	26.10	24.69
		Max	26.90	39.33	41.27	40.00
		Correlation w/ Previous Year	N.A	0.33*	0.50*	0.57*

Indicator	Source (2015 Survey)	Measure	2013	2014	2015	2016
"Contracts, land, ..., and other economic resources mostly fall in the hands of enterprises that have strong connections to local authorities" (% agree)	PCI Survey Question: H5	Min	75.00	61.64	55.67	46.99
		Median	96.59	76.47	76.92	72.29
		Max	100.00	88.89	83.12	84.44
		Correlation w/ Previous Year	N.A	0.09	0.36*	0.54*
Preferential treatment to big companies (both state-owned and nonstate) is an obstacle to their business operations (% agree)	PCI Survey Question: H.2.5	Min	17.57	31.48	41.03	37.31
		Median	34.62	52.00	56.52	54.55
		Max	60.92	61.40	66.67	71.76
		Correlation w/ Previous Year	N.A	0.16	0.25	0.34*

Table 3.7: Comparison of Proactivity (2006-2016)

Indicator	Source (2015 Survey)	Measure	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	
Firms' assessment of the attitude of provincial government toward private sector (% Positive or Fairly Positive)	PCI Survey Question: H1	Min	30.21	24.5	32.71	28.42	31.11	26.25	27.56	26.21	20.99	24.75	29.41	
		Median	48.28	44.97	53.4	43.75	47	45.33	44.44	43.88	43.88	38.95	35.14	44.33
		Max	71.56	67.37	72.22	71.96	67.09	82.89	66.94	66.94	69.06	65.17	60.44	67.71
		Correlation w/ Previous Year	0.63*	0.67*	0.53*	0.56*	0.56*	0.37*	0.42*	0.49*	0.34*	0.67*	0.67*	0.54*
The PPC is flexible within the legal framework to create favorable business environment for nonstate firms (% Strongly Agree or Agree)	PCI Survey Question: H2.2	Min	51.61	53.68	57.35	54.67	54.37	41.67	34.48	39.66	46.84	51.39	48.35	
		Median	74.44	71.74	77.28	72.65	75.31	65.15	65.57	62.77	62.77	67.57	73.56	70.54
		Max	93.48	92.47	91.41	91.72	90.14	92.15	88.31	88.31	90.81	90.91	88.43	89.22
		Correlation w/ Previous Year	0.60*	0.68*	0.68*	0.70*	0.68*	0.48*	0.44*	0.05	0.20	0.68*	0.68*	0.72*
The PPC is very proactive and innovative in solving new problems (% Strongly Agree or Agree)	PCI Survey Question: H2.3	Min	40	40.22	40.9	23.94	25	19.35	22.48	33.04	35.53	40.96	32.56	
		Median	61.88	58.12	61.5	42.46	49.38	46.6	47.66	47.66	52.24	53.13	58.95	56.67
		Max	88.64	87.91	85.05	72.59	71.11	78.26	71.13	71.13	82.76	76.58	82.50	80.81
		Correlation w/ Previous Year	0.69*	0.76*	0.75*	0.75*	0.61*	0.47*	36*	0.24**	0.15	0.62*	0.62*	0.73*
There are good initiatives at the provincial level but they are not well implemented by departments (% Strongly Agree or Agree)	PCI Survey Question: H2.1	Min								32.71	60.94	55.56	61.45	
		Median								56.98	76.92	79.07	78.57	
		Max								87.74	91.55	90.24	87.50	
		Correlation w/ Previous Year									N.A	0.26*	0.45*	0.30*

Indicator	Source (2015 Survey)	Measure	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Provincial leaders have good policies they are not well implemented at district level (% Strongly Agree or Agree).	PCI Survey Question: H2.5	Min								24.30	41.27	47.50	47.06
		Median								43.40	57.69	61.95	59.46
		Max								76.47	72.73	72.88	77.00
Province's reaction to lack of clarity in central policies/documents: % "delay and seek instructions" and "do nothing".	PCI Survey Question: H1.1	Correlation w/ Previous Year								N.A	0.17	-0.01	0.36*
		Min								11.29	23.33	18.75	19.71
		Median								33.33	38.54	35.29	33.80
		Max								58.16	53.19	48.28	50.00
		Correlation w/ Previous Year								N.A	0.25	0.07	0.27*

\* Significant at 5% level; NA = not applicable

\*\* Significant at 10% level

All values are at the provincial level.  
2005 data only include 42 provinces.

Table 3.8. Comparison of Business Support Services (2006-2016)

Indicator	Source (2015 Survey)	Measure	2009	2010	2011	2012	2013	2014	2015	2016	
Number of trade fairs held by province in previous year and registered for present year.**	Data provided by Viet Trade of the Ministry of Trade	Min	0	0	0	1	1	1	4	4	
		Median	6	6	6	11	10	9	12	12	
		Max	20	166	80	20	44	20	20	20	20
		Correlation w/Previous Year	0.42*	0.36*	0.23*	0.48*	0.55*	0.59*	0.90*	0.90*	1.00*
Ratio of the total number of service providers to the total number of firms (%)	"Tax Authority (Author's Calculation)"	Min			N.A	0	0	0.09	0.046	0.14	
		Median			N.A	0.84	0.66	1.02	0.77	1.02	
		Max			N.A	5	4.6	4.34	3.58	3.75	
		Correlation w/Previous Year			N.A	N.A	0.97*	0.96*	0.88*	0.88*	0.90*
Ratio of the number of nonstate and FDI service providers to the total number of service providers (%)	"Tax Authority (Author's Calculation)"	Min		0	0	0	0	0	0	0	
		Median		44.44	66.67	57.14	66.67	66.67	80.57	80.57	67.45
		Max		100	100	100	100	100	100	100	97
		Correlation w/Previous Year		0.19	0.77*	0.85*	0.95*	0.73*	0.65*	0.65*	0.83*
Firm has used business information search services (%)	PCI Survey Question: E.6.1	Min	29.90%	31.48%	19.39%	19.88%	14.75%	27.69%	20.97%	15.94%	
		Median	60.36%	64.35%	46.00%	37.50%	32.76%	41.27%	33.80%	31.88%	
		Max	79.81%	87.10%	80.46%	59.26%	54.31%	56.96%	50.65%	55.29%	
		Correlation w/Previous Year	NA	0.47*	0.22*	-0.04	0.06	0.36*	0.44*	0.44*	0.16
Firm used private provider for above business information search services (%)	PCI Survey Question: E.6.1	Min	20.59%	16.67%	20.37%	4.35%	19.23%	23.81%	21.88%	21.74%	
		Median	38.81%	39.22%	41.89%	29.73%	42.86%	46.88%	37.25%	40.00%	
		Max	58.82%	55.56%	80.00%	56.67%	71.43%	63.64%	61.11%	68.18%	
		Correlation w/Previous Year	NA	16.6*	-0.05	0.09	0.16	0.33*	-0.08	-0.08	-0.19

Indicator	Source (2015 Survey)	Measure	2009	2010	2011	2012	2013	2014	2015	2016
Firm intends to use above service provider again for business information search services (%)	PCI Survey Question: E.6.1.1	Min	5.56%	20.59%	14.91%	8.67%	25.00%	46.88%	47.62%	51.06%
		Median	16.44%	50.00%	35.44%	22.83%	61.54%	65.52%	71.88%	76.67%
		Max	24.81%	65.09%	51.92%	40.00%	86.96%	88.00%	86.36%	93.94%
		Correlation w/Previous Year	NA	0.57*	0.31*	0.09	0.25*	-0.07	0.16	0.10
Firm has used consultant on regulatory information (%)	PCI Survey Question: E.6.2	Min	30.34%	27.87%	19.39%	18.64%	12.50%	32.00%	23.60%	20.59%
		Median	62.50%	57.50%	44.74%	38.68%	38.36%	44.78%	40.48%	38.36%
		Max	77.42%	81.82%	77.90%	62.12%	61.11%	60.53%	55.42%	59.09%
		Correlation w/Previous Year	NA	0.48*	0.35*	0.05	-0.06	0.20	0.32*	0.13
Firm used private provider for consulting on regulatory information (%)	PCI Survey Question: E.6.2	Min	3.03%	2.04%	4.17%	4.35%	3.85%	9.09%	0.00%	10.71%
		Median	16.95%	13.33%	30.00%	18.75%	28.57%	21.62%	20.83%	26.09%
		Max	43.18%	33.33%	69.08%	50.00%	62.07%	54.36%	50.38%	68.38%
		Correlation w/Previous Year	NA	11.98*	0.19*	0.00	0.42*	0.15	0.58*	0.46*
Firm intends to use above service provider again for consulting on regulatory information (%)	PCI Survey Question: E.6.1.2	Min	3.17%	14.06%	10.49%	4.10%	24.14%	42.86%	46.88%	27.03%
		Median	14.38%	38.60%	29.31%	19.42%	56.00%	62.50%	64.50%	62.75%
		Max	22.31%	57.14%	51.47%	33.67%	90.63%	82.61%	84.62%	86.36%
		Correlation w/Previous Year	NA	0.49*	0.33*	-0.05	0.29*	-0.09	-0.05	-0.11
Firm has used business match making services(%)	PCI Survey Question: E.6.4	Min	25.29%	26.96%	14.81%	13.41%	12.28%	21.57%	17.19%	15.45%
		Median	53.40%	56.68%	37.50%	31.67%	30.91%	35.06%	30.56%	30.14%
		Max	73.12%	81.82%	77.27%	56.96%	48.21%	46.15%	45.88%	0.00%
		Correlation w/Previous Year	NA	.50*	0.23*	-0.06	0.16	0.11	0.11	0.12
Firm used private provider for business match making services (%)	PCI Survey Question: E.6.4	Min	25.00%	0.00%	21.57%	5.56%	21.74%	28.00%	27.27%	21.05%
		Median	44.12%	54.55%	50.00%	45.45%	51.43%	52.17%	50.00%	48.28%
		Max	70.21%	70.37%	80.88%	84.62%	79.63%	76.92%	68.18%	78.57%
		Correlation w/Previous Year	NA	-0.1198	-0.02	-0.03	0.15	0.44*	0.13	0.09

Indicator	Source (2015 Survey)	Measure	2009	2010	2011	2012	2013	2014	2015	2016
Firm intends to use above service provider again for business match making services (%)	PCI Survey Question: E.6.1.4	Min	4.76%	16.67%	12.50%	6.42%	23.33%	45.83%	47.62%	37.93%
		Median	12.68%	39.52%	24.69%	15.73%	53.33%	65.63%	66.67%	68.42%
		Max	21.64%	59.18%	42.22%	32.35%	81.08%	93.33%	89.47%	90.91%
		Correlation w/Previous Year	NA	0.61*	0.47*	0.10	0.22	-0.11	0.12	0.09
Firm has used trade promotion services (%)	PCI Survey Question: E.6.5	Min	19.48%	22.92%	11.29%	12.50%	10.30%	14.06%	11.24%	9.86%
		Median	45.45%	48.61%	36.67%	26.56%	27.27%	30.61%	24.64%	22.97%
		Max	72.62%	78.26%	74.14%	51.61%	51.43%	46.58%	43.75%	43.75%
		Correlation w/Previous Year	NA	0.50*	0.24*	-0.03	0.21	0.14	0.34*	0.39*
Firm used private provider for trade promotion services (%)	PCI Survey Question: E.6.5	Min	4.44%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
		Median	18.00%	15.79%	24.14%	17.65%	23.81%	18.18%	17.24%	18.18%
		Max	38.42%	42.31%	74.60%	70.00%	72.73%	46.67%	36.36%	50.00%
		Correlation w/Previous Year	NA	0.45*	0.21*	-0.16	0.33*	0.12	0.23	0.23
Firm intends to use above service provider again for trade promotion services (%)	PCI Survey Question: E.6.1.5	Min	1.59%	8.05%	4.54%	3.54%	9.52%	23.81%	8.33%	12.50%
		Median	7.89%	20.71%	12.05%	10.00%	39.13%	50.00%	50.00%	50.00%
		Max	17.46%	34.44%	25.56%	18.69%	66.67%	75.51%	80.00%	81.25%
		Correlation w/Previous Year	NA	0.39*	0.47*	24.05%	0.25*	0.02	0.18	-0.05
Firm has used technology related services (%)	PCI Survey Question: E.6.6	Min	25.33%	21.54%	15.38%	13.51%	8.05%	15.38%	22.99%	18.06%
		Median	50.00%	52.63%	36.51%	29.55%	29.51%	39.13%	35.14%	31.58%
		Max	73.49%	81.40%	74.71%	50.00%	52.21%	54.17%	47.87%	46.03%
		Correlation w/Previous Year	NA	0.50*	0.24*	-0.02	0.20	0.20	0.47*	0.06
Firm used private provider for technology related services (%)	PCI Survey Question: E.6.6	Min	17.65%	4.76%	0.00%	6.45%	23.53%	29.03%	21.88%	11.76%
		Median	38.60%	40.63%	45.00%	33.33%	46.67%	52.00%	42.86%	47.83%
		Max	65.85%	69.23%	83.08%	62.50%	85.11%	74.19%	61.21%	71.05%
		Correlation w/Previous Year	NA	0.29*	0.26*	0.11	0.24	0.27*	0.24	0.11

Indicator	Source (2015 Survey)	Measure	2009	2010	2011	2012	2013	2014	2015	2016
Firm intends to use above service provider again for technology related services (%)	PCI Survey Question: E.6.1.6	Min	3.17%	7.81%	4.88%	3.67%	16.13%	26.09%	28.57%	18.75%
		Median	10.71%	26.83%	15.38%	9.90%	37.29%	47.62%	47.83%	47.06%
		Max	17.46%	38.74%	31.00%	22.86%	66.67%	66.67%	70.59%	71.43%
		Correlation w/Previous Year	NA	0.50*	0.37*	0.21	0.23	-0.01	0.15	0.06
Firm has used accounting and financing training services (%)	PCI Survey Question: E.6.7					18.24%	20.25%	19.77%	19.77%	18.92%
						35.94%	37.66%	39.44%	39.44%	35.14%
						65.26%	58.44%	59.21%	59.21%	50.00%
						N.A	0.32*	0.56*	0.36*	0.25
Firm used private provider for above accounting and financing training services (%)	PCI Survey Question: E.6.7					4.76%	8.89%	3.70%	3.70%	4.17%
						31.82%	34.29%	29.03%	29.03%	35.56%
						78.26%	57.52%	53.73%	53.73%	61.90%
						N.A	0.28*	0.36*	0.36*	0.36*
Firm intends to use above service provider again for accounting and financing training services (%)	PCI Survey Question: E.6.1.7					12.50%	30.77%	35.71%	35.71%	23.53%
						41.94%	59.09%	54.84%	54.84%	58.33%
						72.73%	78.57%	80.00%	80.00%	90.00%
						N.A	0.39*	0.32*	0.32*	0.14
Firm has used business administration training services (%)	PCI Survey Question: E.6.8					10.84%	14.86%	13.92%	13.92%	9.09%
						29.19%	27.87%	27.72%	27.72%	26.53%
						57.89%	45.95%	43.84%	43.84%	48.72%
						N.A	0.21	0.47*	0.47*	0.28*

Indicator	Source (2015 Survey)	Measure	2009	2010	2011	2012	2013	2014	2015	2016
Firm used private provider for above business administration training services (%)	PCI Survey Question: E.6.8						0.00%	9.09%	3.57%	5.26%
							36.36%	31.82%	29.41%	30.00%
							73.27%	73.33%	57.14%	66.67%
Firm intends to use above service provider again for business administration training services (%)	PCI Survey Question: E.6.1.8						N.A	0.39*	0.38*	0.36*
							7.14%	19.23%	26.32%	22.22%
							38.89%	50.00%	50.00%	52.94%
							67.57%	84.21%	91.67%	79.31%
							N.A	0.08	0.16	0.28*

\* Significant at 5% level; NA = not applicable  
All values are at the provincial level.

2005 data only include 42 provinces and do not include the full set of indicators used in subsequent years.

\*\*Because the maximum value recorded in HCMC is an outlier on both of these variables (over two standard deviations greater than the mean value), lower values of 10 and 100, the number scored by the second highest province, were used to standardize the sub-index scores.

**Table 3.9: Comparison of Labor Policies (2006-2016)**

Indicator	Source	Measure	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	
1. Services provided by provincial agencies: general education (% Very Good or Good)	PCI Survey Question: E1.7	Min	7.43	51.51	17.71	22.08	20.27%	28.77%	24.6%	31.3%	32.9%	34.4%	34.4%	
		Median	19.16	73.29	35.20	45.45	46.99%	52.05%	54.7%	54.8%	57.0%	51.8%	47.8%	
		Max	35.52	87.34	58.90	68.93	68.97%	75.80%	80.0%	80.0%	75.3%	73.1%	69.1%	69.2%
		Correlation w/ Previous Year	NA	0.21	0.61*	0.76*	0.72*	0.54*	0.35*	0.46*	0.64*	0.76*	0.62*	0.62*
2. Services provided by provincial agencies: vocational training (% Very Good or Good)	PCI Survey Question: E1.8	Min	31.25	24	6.25	10.25	10.67%	16.46%	15.25%	17.33%	16.30%	18.07%	20.56%	
		Median	55.43	55.9	19.81	27.11	27.40%	34.88%	42.15%	43.10%	43.10%	33.08%	31.11%	33.03%
		Max	73.17	79.49	46.28	48.51	64.37%	68.25%	73.39%	73.39%	67.78%	57.47%	59.04%	58.89%
		Correlation w/ Previous Year	NA	0.66*	0.78*	0.57*	0.57*	0.39*	0.26*	0.37*	0.56*	0.68*	0.68*	0.63*
3. Firm has used labor exchange services (%)	PCI Survey Question: E2.6.3	Min				15.65%	4.39%	23.76%	13.56%	9.52%	13.11%	8.99%	9.43%	
		Median				33.33%	31.11%	52.56%	33.33%	30.10%	27.94%	29.76%	32.10%	
		Max				47.13%	48.08%	83.17%	54%	48%	48%	48%	51%	53%
		Correlation w/ Previous Year				NA	0.37*	0.31*	0.14	0.09	0.09	0.25	0.65*	0.42*
4. Firm used private provider for above labor exchange services (%)	PCI Survey Question: E2.6.1.3	Min				25.53%	0.00%	3.45%	2.00%	5.88%	5.56%	10.00%	8.33%	
		Median				40.43%	39.06%	22.72%	15.62%	45.00%	40.00%	34.38%	38.10%	
		Max				75.61%	84.42%	61.80%	39%	80%	84%	83%	83%	82%
		Correlation w/ Previous Year				NA	0.39*	0.13*	0.09	0.25	0.25	0.34*	0.43*	0.43*
5. Firm intends to use above service provider again for labor exchange services (%)	PCI Survey Question: E2.6.1.3	Min				8.51%	32.65%	6.90%	4.76%	5.56%	13.33%	7.69%	23.08%	
		Median				27.78%	62.50%	27.78%	19.56%	40.00%	50.00%	52.38%	58.33%	
		Max				42.86%	93.94%	53.70%	34.54%	75.00%	66.67%	70.00%	80.00%	
		Correlation w/ Previous Year				NA	0.02	0.23*	0.1479	0.29*	0.16	0.35*	0.35*	0.21

Indicator	Source	Measure	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
6. Percentage of total business costs spent on labor training.	PCI Survey Question: E8 (Data is the residual after regressing labor costs on firm type, sector, size, number of enterprises in province, average industrial wage in province.)	Min				0 (-3.6)	0 (-3.37)	0(-3.31)	0.87(-2.42)	1.2(-1.54)	3.38 (-1.54)	2.00(-2.71)	2.37(-2.59)
		Median				1 (-2.5)	1.25 (-2.44)	1(-2.14)	3.9(-0.039)	2.9(-2.0)	5.56(-2.0)	4.57(-0.18)	4.66(-.046)
		Max				2.5 (-1.19)	3 (0.917)	5(1.02)	7.47(4.03)	5.2(2.68)	8.09(2.68)	7.15(2.27)	7.99(3.49)
		Correlation w/ Previous Year				NA	0.37*	-0.08	0.01	0.31*	0.14	0.27*	0.18
7. Percentage of total business costs spent on labor recruitment	PCI Survey Question: E9 (Data is the residual after regressing labor costs on firm type, sector, size, number of enterprises in province, average industrial wage in province.)	Min				0 (-3.5)	0 (-3.99)	0(-2.92)	1.48(-2.29)	0.47(-2.41)	1.25(-2.53)	1.44(-2.78)	1.47(-2.55)
		Median				1 (-2.3)	1 (-2.8)	0(-2.30)	3.82(-0.18)	2.09(-0.23)	4.32(-.16)	4.26(0.25)	4.1(.039)
		Max				2 (-1.27)	3 (1.99)	1(-0.94)	9.39(4.866)	6.19(4.48)	9(4.87)	8.14(4.34)	9.24(4.06)
		Correlation w/ Previous Year				NA	0.21	0.11	-0.22	0.25*	0.27*	0.49*	0.39*
8. Overall Satisfaction with Labor (% Agreeing labor meets firm needs).	PCI Survey Question: E.9	Min				50.4%	58.40%	42.99%	71.6%	85.0%	77.5%	82.6%	82.1%
		Median				74.1%	73.47%	75.60%	92.7%	95.1%	93.6%	93.5%	90.4%
		Max				83.8%	90.11%	93.75%	100.0%	99.0%	100.0%	98.9%	98.9%
		Correlation w/ Previous Year				NA	0.28*	0.21*	-0.10	0.24	0.55*	0.49*	0.25*
9. Ratio of vocational training school graduates to untrained laborers	Ministry of Labor, Invalids and Social Affairs: General Labor Department	Min				1.42%	0.89%	1.03%	0.95%	1.20%	0.63%	0.60%	0.81%
		Median				5.45%	3.13%	3.60%	3.72%	4.60%	4.56%	4.36%	4.92%
		Max				29.02%	20.51%	20.08%	22.42%	22.37%	12.00%	12.00%	12.00%
		Correlation w/ Previous Year				NA	0.58*	0.93*	0.93*	0.91*	0.93*	0.91*	0.95*

Indicator	Source	Measure	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	
10. Secondary school graduates as % of workforce	General Statistical Office	Min				4.4%	4.36%	2.73%	2.05%	2.98%	2.14%	2.57%	2.80%	
		Median				10.3%	8.65%	7.10%	7.69%	7.59%	7.61%	7.91%	8.47%	
		Max				30.2%	28.02%	16.17%	19.09%	19.53%	12.86%	12.86%	12.86%	12.86%
		Correlation w/ Previous Year				NA	0.91*	0.65*	0.85*	0.92*	0.89*	0.88*	0.88*	0.93*
11. Percentage of workers having completed training at vocational schools	PCI Survey Question: E12	Min								23.18%	23.19%	20.59%	34.06%	
		Median								42.80%	42.49%	36.80%	49.91%	
		Max									67.25%	55.06%	51.23%	67.79%
		Correlation w/ Previous Year									N.A	0.45*	0.63*	0.69*

\* Significant at 5% level; NA = not applicable  
 All values are at the provincial level. Parenthes in indicators E8& E9 indicate residuals.

Table 3.10: Comparison of Legal Institutions (2006-2016)

Indicator	Source	Measure	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1. Legal system provided mechanism for firms to appeal against officials' corrupt behavior (% Always or Usually)	PCI Survey Question: G2	Min	7.44%	17.70%	17.22%	13.04%	14.16%	0.00%	9.0%	16.1%	15.5%	18.3%	19.6%
		Median	19.16%	28.80%	27.31%	25.17%	25.00%	23.70%	23.7%	32.6%	31.6%	31.4%	31.7%
		Max	35.53%	41.41%	42.53%	43.94%	53.33%	55.80%	51.7%	69.9%	53.4%	47.7%	43.8%
		Correlation w/ Previous Year	NA	-0.24	0.48*	0.38*	0.27*	-0.08*	-0.12	0.25*	0.30*	0.55*	0.41*
2. Firm confident that legal system will uphold property rights and contracts (% Strongly Agree or Agree)	PCI Survey Question: G1	Min	50.00%	53.57%	55.05%	45.63%	43.36%	0.00%	41.7%	58.2%	71.6%	70.4%	65.4%
		Median	69.42%	66.11%	67.00%	62.32%	62.69%	69.94%	63.8%	83.2%	81.0%	81.2%	81.3%
		Max	82.14%	77.55%	78.23%	75.76%	71.11%	88.76%	81.8%	92.6%	88.6%	88.9%	88.9%
		Correlation w/ Previous Year	NA	0.50*	0.40*	0.29*	0.16	-0.14*	-0.04	0.22	0.16	0.31*	0.36*
3. Cases filed by non-state entities at Provincial Economic Court per 100 firms.	People's Supreme Court	Min	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Median	0.41	0.58	1.29	3.05	1.74	2.11	1.32	2.09	1.52	0.63	0.68
		Max	9.49	8.12	6.97	35.64	62.10	14.82	9.01	21.74	14.24	12.25	10.13
		Correlation w/ Previous Year		0.66*	0.32*	0.84*	0.84*	0.70*	0.68*	0.57*	0.65*	0.78*	0.74*
4. Non-state claimants as a percentage of claimants at Provincial Economic Court.	People's Supreme Court	Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Median	50.00	50.00	65.48	72.41	73.47	84.81	90.00	85.71	85.71	85.14	81.82
		Max	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
		Correlation w/ Previous Year	NA	0.38*	0.05	0.41*	0.40*	0.27*	0.46*	0.30*	0.26*	0.46*	0.41*

Indicator	Source	Measure	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
5. Ratio of economic cases solved(%) ( 2014)	People's Supreme Court	Min									44%	17%	43%
		Median									81%	77%	75%
		Max									100%	100%	100%
		Correlation w/ Previous Year									N.A	0.80*	0.73*
6. Provincial court judge economic cases by the law (% Agree or strongly agree)	PCI Survey Question: G3.1	Min								78.13%	72.68%	77.82%	69.32%
		Median								89.29%	85.98%	87.90%	83.33%
		Max								98.84%	94.74%	93.51%	92.50%
		Correlation w/ Previous Year									N.A	0.45*	0.47*
7. Provincial court resolve economic cases quickly (% Agree or strongly agree)	PCI Survey Question: G3.2	Min								29.47%	42.03%	48.00%	46.04%
		Median								58.00%	56.00%	63.41%	59.38%
		Max								80.65%	67.80%	74.71%	71.28%
		Correlation w/ Previous Year									N.A	0.11	0.37*
8. Court judgements are enforced quickly (% Agree or strongly agree)	PCI Survey Question: G3.3	Min								38.64%	43.06%	50.00%	47.25%
		Median								60.00%	59.78%	65.26%	62.82%
		Max								86.02%	73.13%	76.32%	73.53%
		Correlation w/ Previous Year									N.A	0.03	0.36*

Indicator	Source	Measure	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	
9. Legal aid agencies support businesses in the use of laws when disputes arise (% Agree)	PCI Survey Question: G3.4	Min								40.00%	53.13%	55.95%	44.83%	
		Median								68.75%	65.28%	72.15%	66.67%	
		Max									86.67%	79.59%	86.30%	84.44%
		Correlation w/ Previous Year									N.A	0.17	0.31*	0.26*
10. Formal and informal costs are acceptable (% Agree or strongly agree)	PCI Survey Question: G3.5	Min								57.35%	57.35%	63.41%	53.09%	
		Median								77.78%	71.03%	74.73%	72.93%	
		Max									93.26%	83.33%	83.56%	85.37%
		Correlation w/ Previous Year									N.A	0.32*	0.40*	0.35*
"11. Judgement by the court is fair (% Agree or strongly agree)	PCI Survey Question: G3.6	Min								71.67%	66.14%	68.75%	65.67%	
		Median								85.96%	80.00%	81.98%	78.41%	
		Max									96.70%	92.86%	90.67%	89.86%
		Correlation w/ Previous Year									N.A	0.25*	0.43*	0.35*
12. Willingness to use court in case a dispute arises (% Yes)	PCI Survey Question: G4	Min								29.31%	36.05%	23.42%	26.81%	
		Median								59.74%	50.48%	37.50%	35.79%	
		Max									77.87%	63.10%	50.00%	55.67%
		Correlation w/ Previous Year									N.A	0.04	0.22	0.39*

## APPENDIX 4

### DETAILS OF INDICATORS FOR THE 2016 INFRASTRUCTURE INDEX

Province	No of Industrial zone	% firms think IZ is good or very good	% firms think Road quality is good or very good	% of provincial roads are asphalted	% of district roads are asphalted	No of days in a year roads blocked due to floods, landslides	Hours of lost telephone, internet, fax in last month	Hours of lost power in the last month	% firms say Telephones are good or very good	% say Power is good or very good	% firms say Internet is good	% firms that have email	Infrastructure Index
Ha Noi	14	36%	34%	95%	92%	8.60	0.00	2	74%	69%	53%	86%	62.91
Hai Phong	4	38%	36%	87%	37%	12.93	1.00	5	72%	61%	50%	86%	58.92
Da Nang	6	60%	80%	96%	72%	2.68	0.00	3	84%	89%	67%	91%	73.83
HCMC	18	47%	45%	100%	59%	10.74	0.37	2	72%	63%	50%	77%	66.85
Can Tho	6	45%	46%	47%	0%	7.40	0.00	8	84%	77%	66%	83%	61.39
Thanh Hoa	5	30%	41%	100%	24%	3.26	0.10	8	76%	58%	53%	79%	59.07
Nghe An	1	40%	52%	89%	25%	4.52	1.00	7	77%	69%	63%	93%	62.24
Ha Tinh	0	30%	41%	65%	32%	6.67	5.00	9	74%	60%	53%	91%	57.40
Quang Binh	2	20%	37%	75%	87%	15.88	1.84	8	75%	65%	56%	82%	57.51
Quang Tri	0	35%	57%	78%	21%	7.06	0.04	4.5	77%	72%	63%	81%	64.94
TT-Hue	0	41%	39%	90%	82%	4.89	0.00	5	78%	75%	53%	87%	61.85
Quang Nam	4	47%	57%	100%	63%	3.80	1.50	8	82%	73%	56%	83%	65.21
Quang Ngai	3	40%	51%	90%	64%	4.64	0.00	2	82%	72%	63%	84%	65.11
Binh Dinh	5	51%	38%	100%	46%	5.61	0.01	6	73%	72%	62%	79%	63.72
Phu Yen	2	35%	42%	62%	65%	9.37	0.00	5	85%	77%	64%	89%	62.56
Khanh Hoa	4	42%	49%	100%	51%	4.18	0.00	8	83%	76%	47%	87%	61.86

Province	No of Industrial zone	% firms think IZ is good or very good	% firms think Road quality is good or very good	% of provincial roads are asphalted	% of district roads are asphalted	No of days in a year roads blocked due to floods, landslides	Hours of lost telephone, internet, fax in last month	Hours of lost power in the last month	% firms say Telephones are good or very good	% say Power is good or very good	% firms say Internet is good	% firms that have email	Infrastructure Index
Dong Thap	0	61%	45%	97%	57%	4.00	0.01	8	88%	84%	71%	79%	67.83
An Giang	3	46%	42%	90%	29%	12.01	2.00	10	75%	66%	63%	79%	61.28
Tien Giang	3	44%	40%	100%	69%	3.93	0.00	9.989388	81%	69%	56%	72%	60.42
Vinh Long	3	47%	36%	91%	87%	3.97	0.00	8	81%	77%	59%	81%	64.50
Ben Tre	2	45%	53%	100%	100%	4.38	0.00	8	82%	74%	57%	79%	65.65
Kien Giang	0	55%	59%	80%	82%	4.80	0.86	7.5	79%	74%	64%	64%	64.62
Tra Vinh	0	39%	36%	94%	52%	10.41	2.00	10	65%	59%	57%	65%	56.77
Soc Trang	1	49%	48%	79%	100%	4.68	0.81	10	88%	83%	64%	72%	65.00
Bac Lieu	1	36%	57%	78%	50%	8.45	0.34	8	85%	69%	61%	74%	61.38
Ca Mau	0	25%	31%	100%	40%	10.67	0.00	16	87%	67%	66%	71%	57.14
Binh Phuoc	9	41%	35%	100%	21%	5.92	1.41	10	77%	66%	57%	78%	60.96
Tay Ninh	5	55%	60%	94%	38%	2.92	1.00	6	68%	61%	60%	73%	65.49
Ninh Thuan	3	22%	45%	79%	12%	3.56	0.00	5.5	77%	81%	46%	80%	53.01
Long An	24	46%	34%	64%	27%	23.10	0.00	10	79%	69%	48%	78%	62.08
Quang Ninh	7	40%	42%	15%	100%	7.06	5.00	10	69%	61%	43%	86%	57.81
Hau Giang	2	38%	42%	76%	60%	12.77	0.00	10	88%	75%	62%	75%	60.96
BRVT	15	60%	71%	89%	38%	2.94	0.00	8	75%	71%	60%	86%	72.57
Bac Ninh	13	53%	53%	89%	74%	4.44	2.50	5.5	76%	64%	52%	80%	66.68

Province	No of Industrial zone	% firms think Z is good or very good	% firms think Road quality is good or very good	% of provincial roads are asphalted	% of district roads are asphalted	No of days in a year roads blocked due to floods, landslides	Hours of lost telephone, internet, fax in last month	Hours of lost power in the last month	% firms say Telephones are good or very good	% say Power is good or very good	% firms say Internet is good	% firms that have email	Infrastructure Index
Binh Duong	29	73%	63%	97%	79%	3.56	0.00	6	78%	79%	60%	83%	78.02
Binh Thuan	0	38%	42%	82%	29%	17.46	0.05	10	82%	64%	49%	84%	55.13
Dong Nai	31	59%	36%	92%	87%	11.44	0.00	8	74%	70%	52%	82%	71.20
Ha Nam	0	41%	43%	99%	54%	5.10	0.24	10	72%	57%	60%	86%	63.18
Hai Duong	10	45%	39%	99%	91%	8.84	0.00	3	67%	61%	56%	70%	64.34
Hung Yen	0	42%	52%	95%	89%	3.35	0.92	10.21924	70%	58%	43%	83%	60.26
Nam Dinh	3	47%	60%	98%	20%	4.18	0.48	8	71%	55%	59%	77%	62.55
Ninh Binh	4	40%	50%	100%	83%	3.80	5.00	10	74%	53%	55%	84%	63.42
Thai Binh	5	44%	50%	100%	99%	3.76	2.00	8	80%	65%	59%	79%	66.66
Vinh Phuc	10	55%	58%	100%	88%	5.06	0.00	5	83%	67%	58%	79%	69.49
Bac Kan	0	18%	30%	97%	29%	6.46	0.00	8.86368	67%	66%	51%	68%	54.50
Bac Giang	5	39%	46%	98%	16%	8.53	0.00	5	82%	62%	61%	75%	62.93
Cao Bang	2	10%	24%	100%	38%	5.46	0.00	2	72%	66%	55%	81%	57.23
Dak Lak	1	51%	57%	100%	91%	3.91	0.15	8	73%	70%	62%	86%	69.42
Dak Nong	2	21%	41%	99%	38%	4.56	0.00	12	83%	78%	46%	70%	55.05
Dien Bien	0	41%	34%	54%	12%	6.04	0.00	5.566757	80%	69%	66%	82%	60.66
Gia Lai	1	32%	38%	83%	15%	4.81	0.00	2	80%	83%	57%	80%	58.77
Hoa Binh	2	33%	33%	97%	66%	7.75	1.00	10	75%	60%	54%	84%	61.11
Kon Tum	0	31%	46%	78%	60%	4.72	0.00	2	78%	77%	64%	84%	61.76

Province	No of Industrial zone	% firms think IZ is good or very good	% firms think Road quality is good or very good	% of provincial roads are asphalted	% of district roads are asphalted	No of days in a year roads blocked due to floods, landslides	Hours of lost telephone, internet, fax in last month	Hours of lost power in the last month	% firms say Telephones are good or very good	% say Power is good or very good	% firms say Internet is good	% firms that have email	Infrastructure Index
Lai Chau	0	22%	40%	100%	67%	6.73	0.10	5	68%	64%	51%	78%	59.51
Lam Dong	0	41%	44%	86%	45%	6.71	1.78	8	73%	62%	51%	81%	58.71
Lang Son	0	25%	35%	83%	38%	8.39	0.00	5	77%	74%	57%	80%	61.13
Lao Cai	3	50%	60%	96%	29%	192.25	0.01	5.5	84%	78%	66%	84%	61.97
Phu Tho	3	35%	35%	94%	46%	4.80	0.30	10	73%	57%	50%	89%	59.48
Son La	0	32%	34%	83%	14%	8.72	0.00	5	74%	75%	55%	81%	56.73
Thai Nguyen	6	45%	40%	98%	72%	5.81	0.05	5	75%	67%	59%	84%	67.38
Tuyen Quang	2	23%	37%	84%	50%	14.74	0.01	3	77%	68%	52%	78%	57.60
Yen Bai	3	35%	30%	82%	9%	12.00	0.00	5	67%	64%	52%	79%	57.47
Ha Giang	1	25%	38%	100%	69%	6.05	0.00	1	78%	71%	56%	86%	61.43